

# Introduction to Social Work

Edited by  
**Bishnu Mohan Dash**

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**Bishnu Mohan Dash**

*Faculty, Indira Gandhi National Open University (IGNOU), New Delhi*

 **SAGE | TEXTS**

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# Contents

<i>List of Illustrations</i>	xv
<i>List of Abbreviations</i>	xvii
<i>Preface</i>	xix
<i>About the Book</i>	xxi
<i>About the Editor and Contributors</i>	xxiii

## SECTION A. SOCIAL WORK: MEANING AND BASIC CONCEPTS

<b>CHAPTER 1</b> Social Work: Meaning and Concept, Objectives and Functions <i>Shahin Sultana</i>	3
<b>CHAPTER 2</b> History of Social Work in the USA, the UK and India <i>Indrajit Goswami</i>	15
<b>CHAPTER 3</b> Social Reform Movements in India <i>Akileswari S.</i>	33
<b>CHAPTER 4</b> Great Depression and the Growth of Social Work Education <i>Supriya Rani</i>	48
<b>CHAPTER 5</b> Social Welfare <i>Archana Kaushik</i>	60
<b>CHAPTER 6</b> Social Service <i>Manisha Pal and Rakesh Choudhary</i>	75
<b>CHAPTER 7</b> Social Reform <i>Lakshmana G</i>	89
<b>CHAPTER 8</b> Social Justice <i>Avtar Singh</i>	104
<b>CHAPTER 9</b> Social Legislations <i>Eshita Sharma</i>	119
<b>CHAPTER 10</b> Social Development <i>Kislay Kumar Singh</i>	134
<b>CHAPTER 11</b> Social Security <i>Sunil Prasad and Arul Actovin C.</i>	147

# Detailed Contents

<i>List of Illustrations</i>	xv
<i>List of Abbreviations</i>	xvii
<i>Preface</i>	xix
<i>About the Book</i>	xxi
<i>About the Editor and Contributors</i>	xxiii

## **SECTION A. SOCIAL WORK: MEANING AND BASIC CONCEPTS**

### **Chapter 1**

<b>Social Work: Meaning and Concept, Objectives and Functions</b>	<b>3</b>
<i>Shahin Sultana</i>	
Introduction	3
Social Work: Meaning and Definitions	4
Social Work: Concept and Scope	6
Social Work: Objective and Functions	8
Summary	10

### **Chapter 2**

<b>History of Social Work in the USA, the UK and India</b>	<b>15</b>
<i>Indrajit Goswami</i>	
Introduction	15
History of Social Work in the UK	16
History of Social Work in the USA	19
History of Social Work in India	21
Summary	28

### **Chapter 3**

<b>Social Reform Movements in India</b>	<b>33</b>
<i>Akileswari S.</i>	
Introduction	33
Brahmo Samaj: Raja Ram Mohan Roy (1772–1833)	34
Theosophical Society: Annie Besant (1847–1933)	35
Ramakrishna Mission: Swami Vivekananda (1863–1902)	35
Satyashodhak Samaj: Mahatma Jyotirao Govindrao Phule (1827–1890)	36
Prarthana Samaj: Dadoba Pandurang (1814–1882) and Role of Mahadev Govind Ranade (1842–1901)	37
Young Bengal Movement: Henry Louis Vivian Derozio (1809–1831)	38
Arya Samaj: Swami Dayanand Saraswati (1824–1883)	38

Aligarh Movement: Sir Syed Ahmed Khan (1817–1898)	39
Widow Remarriage Association: Vishnu Shastri Pandit (1827–1876) and Mahadev Govind Ranade (1842–1901)	40
Deoband Movement: Muhammad Qasim Nanautawi (1833–1880) and Rashid Ahmad Gangohi (1826–1905)	40
Other Social Reformers and Revivalists	41
Social Reform Movements across Religions	43
Women Reformers	44
Summary	
<b>Chapter 4</b>	<b>48</b>
<b>Great Depression and the Growth of Social Work Education</b>	
<i>Supriya Rani</i>	48
Introduction	49
Great Depression, the New Deal and Social Work	52
Social Work Education Post the Great Depression	53
The Great Depression and Social Work Education in India	55
Summary	
<b>Chapter 5</b>	<b>60</b>
<b>Social Welfare</b>	
<i>Archana Kaushik</i>	60
Introduction	61
Social Welfare: Concept, Scope and Definitions	63
Philosophical Base of Social Welfare	64
Social Welfare and Related Terms	66
Historical to Current Features of Social Welfare and Social Work	68
Social Welfare: Scope and Practice	70
Summary	
<b>Chapter 6</b>	<b>75</b>
<b>Social Service</b>	
<i>Manisha Pal and Rakesh Choudhary</i>	75
Introduction	76
Social Service: Concept, Meaning and Definitions	78
Social Work and Social Services	84
Summary	
<b>Chapter 7</b>	<b>89</b>
<b>Social Reform</b>	
<i>Lakshmana G</i>	89
Introduction	90
Social Problems and Social Reform	90
What Is Social Reform?	91
Early Reformers in India	91
Social Reform Movements in India in the 18th, 19th and 20th Centuries	91

# 3

## Social Reform Movements in India

**Akileswari S.**

### LEARNING OBJECTIVES

- To understand the beginning of social reform movements in Indian society
- To learn the path followed by the social reformers to attain their goal towards social reformation and revival
- To imbibe their teaching and methods in our contemporary society and inculcate them to build our nation

*Social reforms are never carried out by the weakness of the strong; but always by the strength of the weak.*

—Karl Marx

### INTRODUCTION

In the beginning of the 19th century, Indian society witnessed with strong traditions, beliefs and practices which were caste driven with the threat of extirpation of humanitarian values. Such ideals were upheld in the name of religion and there was a strong need felt to bring about a change in the society. The entry of the British into India marked the beginning of Westernization, which sowed the seeds for liberty, social and economic equality, fraternity, democracy and social justice. The impact of British education in India manifested as a social awakening leading to several social changes in India. Many were agitated and had enlightened thoughts to eradicate or change the prevailing situation in the nation. Many Indians spearheaded several movements to bring about social reformation. These social reform movements were of two kinds: social reformist and social revivalist. The significant social reform movements were Brahma Samaj led by Raja Ram Mohan Roy, Theosophical Society of Annie Besant, Ramakrishna Mission of Swami Vivekananda, Satyashodhak Samaj by

Jyotirao Govindrao Phule, Prarthana Samaj initiated by Dadoba Pandurang and propagated by Ranade, Young Bengal movement of Henry Louis Vivian Derozio, Arya Samaj led by Swami Dayanand Saraswati, Aligarh movement of Sir Syed Ahmed Khan, Widow Remarriage Association by Vishnu Shastri Pandit and Mahadev Govind Ranade, Deoband Movement by Muhammad Qasim Nanautawi and Rashid Ahmad Gangohi. Contributions to social reform and revival were also channelled by Sri Ramakrishna Paramahansa, Debendranath Tagore, Keshab Chandra Sen and Ishwar Chandra Vidyasagar. The growth of social reform movements can also be studied as those that spread in Western India and South India, and as developments in the form of Muslim reforms and reforms among the Parsis and Sikhs. The social reform movements also known as Renaissance, saw the imprints of women reformers such as Pandita Ramabai, Savitribai Phule and Sarojini Naidu.

### BRAHMO SAMAJ: RAJA RAM MOHAN ROY (1772-1833)

#### Did You Know?

Raja Ram Mohan Roy is known as the first feminist of India. He was the pioneer of the social reform movements in India and was thereby called the 'Father of Indian Renaissance'.

Born on 22 May 1772 in an orthodox Bengali family, Roy's early education was in his village in Bengali and later moved to Patna to study Persian and Arabic. He educated himself in English language as well. Roy was a great scholar and had great flair for the religious studies and did an extensive study on Hinduism, Christianity, Islam and other religions and had made many translations of various religious scripts including Vedanta.

### RAJA RAM MOHAN ROY'S IDEOLOGY FOR SOCIAL TRANSFORMATION

Raja Ram Mohan Roy had a modernized concept, especially during those ages when women's rights were completely wrecked up. The idea to transform the society started with the British traditions where he had witnessed the explicated rituals which exploited the society. He focused on women liberation and the snags they faced due to the religion and the society. He had always felt that religion had great influence on society and believed that changing our thoughts on religion would change the entire society. He did a commendable work for the abolition of Sati system in which the wife was also thrown on the funeral pyre of her deceased husband. He went as an Indian ambassador along with Lord William Bentinck for the bill to be passed against the Sati system and the horrifying act be prohibited permanently. In addition, he also promoted widow remarriage and motivated women for educating themselves so that they can face the society. Hence, Roy's liberal reformism brought various changes and set a great milestone in the society.

## **BRAHMO SAMAJ**

Roy established the Atmiya Sabha (1815), later named as Brahmo Sabha (1828) and further finally named as Brahmo Samaj, which struggled for one religion and to practice rationalism. The organization focused on one worship and opposed various rituals and superstitions amalgamated in it. The Sabha made a way for the social, religious and political movements in India. Brahmo Samaj was later split into Brahmo Samaj of India and Adi Brahmo Samaj led by Keshab Chandra Sen and Debendranath Tagore, respectively. They worked hard to abolish caste system, untouchability and various other dehumanizing beliefs in the society.

### **THEOSOPHICAL SOCIETY: ANNIE BESANT (1847-1933)**

Born in London, Annie Besant, after taking over the presidentship of the Theosophical Society, moved to Adyar, India. She developed herself as a fervent reader and became a voracious publisher of more than 200 books. She was married to Frank Besant and soon had two children. However, it was not a compatible relationship and had a hard time; hence, they separated, but she remained as Mrs Besant during her lifetime. She emphasized on freedom of thought, workers' rights, secularism and birth control as she felt that children will decide what freedom they can have.

## **THEOSOPHICAL SOCIETY**

Found in the year 1875 by H. P. Blavatsky and Col H. S. Olcott, the Theosophical Society was started in the USA, followed by their headquarters in Bombay, India, which later shifted to Adyar, India. After the death of Col H. S. Olcott, Annie Besant took over as president. Though the Society had no specific religion to be followed, Mrs Besant became popular by preaching the ideals of Krishna and the Bhagavad Gita. Hence, the word of the Society spread all over India. Moreover, it was also working for the development of youth and education. She established the Central Hindu School, which was later named as Central Hindu University by Madan Mohan Malviya. The Society opened schools for both boys and girls of the deprived communities. Mrs Besant worked hard in eradicating the social evils of child marriage and post-puberty marriage. The Society opened more than hundred branches all over India and did commendable work, especially in educating the children and youth. It respected the Indian values and self-respect movement, and hence, Annie Besant was very much respected during her lifetime in India.

### **RAMAKRISHNA MISSION: SWAMI VIVEKANANDA (1863-1902)**

Originally named as Narendranath Dutta, Swami Vivekananda had a great interest in both reading and writing. Like many other youths of his times, Vivekananda was highly influenced by Keshab Chandra Sen and his preaching. Vivekananda's meeting with Ramakrishna completely

changed his ideologies. Though Ramakrishna was not well educated, he had great wisdom and understanding of the scriptures, which influenced Swami Vivekananda to a great extent.

## RAMAKRISHNA MISSION

Sri Ramakrishna Paramahansa (1836–1886) was born in Bengal in a Brahmin family. Ramakrishna was a very pious person and focused on teaching the scriptures. He followed various faiths and was a strong devotee of Goddess Kali. Later, he was initiated into *Sanyasa* by Totapuri. He became an expert in Advaita Vedanta and in the last stages of his life, he followed Islam and even Christianity where he professed the vision of Madonna and Child himself.

Sri Ramakrishna wanted to educate youth to continue his mission and so did Narendra who became a follower of him and changed his name and is famously known as Vivekananda. Vivekananda started the Ramakrishna Math and then Ramakrishna Mission to teach and educate the youth and do social work along with them. Vivekananda became well known by propagating the Hindu religion in the world forum of religion and had introduced Hinduism in the Parliament of Man. He reiterated that widow remarriage will not uplift the society but educating the women will do so. His teaching was that education will make women handle themselves in the right direction. He says, 'Educate your women first and leave them to themselves; then they will tell you what reforms are necessary for them. With such an education they will solve their own problems.' His teaching was very powerful and all the people in the Parliament of Man always applauded his initiatives. He travelled around the world and continuously spread his knowledge on education and development. He mainly focused on spreading the Indian ideologies in the West. Vivekananda also emphasized on reformation in its own nature rather than blindly accepting the Western ideas and following them. He also said that we must grow up in our own culture and environment. He stated that there can be no upliftment leaving away from our own culture. Hence, reformation should be done for the benefit of all the people in the nation. Advaita he spoke about the evils practised in our society and the need for the nation to work for its upliftment rather than on Westernization.

## SATYASHODHAK SAMAJ: MAHATMA JYOTIRAO GOVINDRAO PHULE (1827–1890)

Mahatma Jyotirao Govindrao Phule was born in Satara, Maharashtra. He was a school dropout as his parents were not able to pay for his studies due to poverty. However, his friends noticed his ability and sponsored his education and, hence, he was able to complete his education. Later, he was married to Savitribai Phule at the age of 13. She was from the Maharashtra and was educated and, hence, Jyotirao educated her at home. Jyotirao Govindrao Phule occupies a unique position among the social reformers of Maharashtra in the 19th century. While other social reformers concentrated more on reforming the social institutions of family and marriage, Phule placed special emphasis on the status and rights of women. He revolted against the caste system under which millions of people had suffered for centuries (Dash, 2010).

**SATYASHODHAK SAMAJ****Did You Know?**

Way ahead of Mahatma Gandhi, Jyotirao Phule was given the title of Mahatma on 11 May 1888 by a Maharashtra activist, Vithalrao Krishnaji Vandekar.

He, along with his wife, became very prominent in the upliftment of women as he found them to be the most oppressed humans in the society. He worked for the lower caste people and farmers who suffered badly at that point of time. He was the pioneer in starting a school for girls for which he was asked to leave the house by his parents. He coined the word 'Dalit' which became famous later. He laid the foundation for women's education by opening schools and appointing women teachers for the same.

Savitribai Phule was the first woman teacher in the school and was also the first woman teacher in the whole India as discrimination against women was very high during those times and girls were not allowed to attend schools. She was a pillar of support for Jyotirao Phule in all his endeavours. Phule later opened a school for the untouchables and had a common bath place in front of his house to show unity of all castes. It could be accessed by anyone regardless of their caste. He and his wife together opened a centre for the pregnant rape victims. Mahila Seva Mandal was also started by Savitribai Phule to support women rights and freedom. Phule was the main reason for the government to pass the Agriculture Act, and after his death due to paralysis, the government also introduced a scheme, Mahatma Jyotirao Phule Jan Arogya Yojana, to provide free medical aid to the poor. Until his last breath, he strongly opposed Brahminism and their ritual ideologies, and strived hard for the liberation of the untouchables.

**PRARTHANA SAMAJ: DADOBHA PANDURANG (1814-1882) AND  
ROLE OF MAHADEV GOVIND RANADE (1842-1901)**

The Prarthana Samaj, understood as the prayer house, was founded by Dadoba Pandurang (1814-1882) and his brother Atmaram Pandurang (1823-1898) in 1867 at Bombay with the objective of rational worship and social reform. The two great members of Prarthana Samaj were Mahadev Govind Ranade and R. G. Bhandarkar. M. G. Ranade was a high court judge in Bombay and R. G. Bhandarkar was a great scholar of the time. They followed the ideologies of the Brahmo Samaj and K. C. Sen, but they were unique in instilling Hindu thoughts and in working against the social evils such as polygamy, polyandry and child marriage. Prarthana Samaj, in contrary to the Brahmo Samaj, supported caste system, idol worship and Hindu rituals. They worked for Hinduism to regain its respect as they felt that the caste system was not the problem but oppressing the fellow human beings/or lower caste was the problem. He continuously fought for abolition of child marriage and to stop all unethical and non-meaningful practices.

Ranade devoted his entire life to Prarthana Samaj. He instituted the Widow Remarriage Association (1861) and Deccan Education Society. He secretly started the inter-caste dining method and later, it became more prominent in the society. He also promoted inter-caste marriage, widow remarriage and upliftment of women and depressed classes. He established the Poona Sarvajanic Sabha as well. To Ranade, religious reform was inseparable from social reform. He believed that the reformation comes through various movements and started night schools for the working class and instituted libraries. The Prarthana Samaj has highly influenced a positive approach and growth of life and all fellow human beings. Ranade was the leader of social reformation and cultural renaissance in Western India.

### **YOUNG BENGAL MOVEMENT: HENRY LOUIS VIVIAN DEROZIO (1809-1831)**

Henry Louis Vivian Derozio was a Scottish man and he came to Calcutta to sell watches. Later after observing the society, he went to teach in the Hindu College. He was able to capture the young minds by his liberal speeches and openly pointing out the problems and the needs to be foreseen. The followers were called Derozians and some of his famous followers were R. Krishnamohan Bandopadhyay, Pearychand Mitra, Ramtanu Lahiri and Tarachand Chakraborty who were great contributors to the movement. Derozio promoted radical ideas through his teaching and by organizing an association for debate and discussions on literature, philosophy, history and science. He inspired his followers and students to question all authorities. Derozio and his famous followers, known as the Derozians and Young Bengal, were fiery patriots. They cherished the ideals of the French Revolution (1789 AD) and the liberal thinking of Britain.

Derozio was dismissed from his post at the college as his propaganda was going out of hands. Derozians were absolutely against many Hindu rituals such as polygamy, sati, child marriage, caste discrimination, dowry and pardah system. Hence, most of the followers of the movement were Christians, and they followed Western culture, dress, food and manners. Derozio died of cholera at the young age of 22. Though deprived of leadership, the members of this group continued preaching radical views through teaching and journalism. However, this movement lasted for a very short period.

### **ARYA SAMAJ: SWAMI DAYANAND SARASWATI (1824-1883)**

Swami Dayanand Saraswati, earlier called Mool Shankar, was born in Gujarat and brought up in a Brahmin family. They were strong believers of Lord Shiva and great followers of the Hindu religion. However, after his sister's death, he started questioning his being about the life after death and so on. Being compelled for marriage, he left the house, wandered around and met many gurus and wanted to seek answers to his questions on. Finally, he was enlightened by the teachings of Swami Virajananda. He insisted him to the Vedas and miraculously, Mool Shankar was able to find all his answers in the same. He

that the Vedas contained all the knowledge imparted to man by God and essentials of modern science could also be traced in them. He was opposed to idolatry, ritual and priesthood, particularly, to the prevalent caste practices and popular Hinduism as preached by the Brahmins. He favoured the study of Western science. Later, he instituted the Arya Samaj.

## ARYA SAMAJ

The Hindu reform movement, Arya Samaj, was founded on 11 April 1875. This movement wanted to revive the Hindu religion and its best practices. The movement completely opposed the Westernization of thoughts and wanted to live according to the culture and values of the nation. The main concept of the origin of Arya Samaj was to give Vedic education to all. Swami Dayanand Saraswati made the Vedas available to all the people and insisted them to read the same. The Samaj opposed the evil practices such as sati, pardah, child marriage and idol worship. In addition, it insisted that all acts should be done with a noble cause and we should be ready to denounce any evil practice. The Shuddi movement was one of the best revival measures started to bring back the Hindus who converted to Christianity and Islam. The Arya Samaj tried to inculcate the spirit of self-respect and self-reliance among the people of India. This promoted nationalism. It also instituted many schools and colleges including the very popular Dayanand Anglo Vedic (DAV) schools to understand the society and to spread national consciousness. Today, Arya Samaj is present all over the world and is involved in very prominent activities. Though Dayanand was not a freedom fighter, he has influenced Lala Lajpat Rai, Subhas Chandra Bose, Bhagat Singh, Madam Cama and Ram Prasad Bismil. He died a painful death, where a cook mixed a piece of glass in the milk, on the day of Diwali, 30 October 1883.

## ALIGARH MOVEMENT: SIR SYED AHMED KHAN (1817-1898)

Sir Syed Ahmed Khan was a Muslim reformer born in 1817. He was a loyal judicial worker of the government till his retirement. By 1878, he joined the Imperial Legislative Council and later earned knighthood by 1888. He had a great pursuit in the development of Muslims as he saw them very much deprived of education and jobs. He encouraged his fellow religious mates to get educated to be on par with the fellow Hindus who were greatly empowered. He also stressed on English education as it would fetch lucrative jobs for the Muslims. He realized that unless the Muslims adapted themselves to the changed circumstances of the British rule, they would be deprived of all new opportunities for status and prosperity. He continuously focused on Muslim folks to get enlightened on the concepts of pardah, polygamy, child marriage, women education, slavery, divorce and so on. The orthodox Muslims opposed his ideologies, but he always convinced them and never let his vision in vain.

Syed Ahmed Khan rightly felt that isolation would harm the Muslim community and to prevent that, he did his best to create a link with the progressive cultural forces of the outside world. He worked hard to remove the hostility of the British rulers towards the Muslims whom they considered as their real enemies. His greatest achievement was the formation of

Muhammadan Anglo-Oriental College, later known as Aligarh Muslim University, in 1875. It was meant to be a centre for spreading Western sciences and culture. The college provided education in humanities and science and the medium of instruction was English. The British approved of the institution and provided teachers and administrative support.

The liberal, social and cultural movement started by Syed Ahmad Khan among the Muslims is known as the Aligarh movement as it originated in Aligarh. The Anglo-Oriental College was the centre of this movement. It aimed at promoting modern education among Muslims without weakening the ties with Islam. It became the central educational institution for Indian Muslims.

### WIDOW REMARRIAGE ASSOCIATION: VISHNU SHASTRI PANDIT (1827-1876) AND MAHADEV GOVIND RANADE (1842-1901)

Widow Remarriage Association was founded by Vishnu Shastri Pandit and Mahadev Govind Ranade in Bombay in 1861. It promoted widow remarriage and campaigned against child marriage, the heavy cost of marriages and customs like the shaving of widow's head.

### DEOBAND MOVEMENT: MUHAMMAD QASIM NANAUTAWI (1833-1881) AND RASHID AHMAD GANGOHI (1826-1905)

The Deoband movement was started in 1867 at Deoband, Saharanpur, Uttar Pradesh, by the theologians, Muhammad Qasim Nanautawi and Rashid Ahmad Gangohi. It was an Indian movement that aimed at the upliftment of the Muslims through educational efforts. Two main objectives of Deoband movement were: (a) popularizing the teachings of the Quran and Hadith and (b) initiating jihad against foreign rule. They did not support Western education and culture. They advocated the unity of all religions.

### OTHER SOCIAL REFORMERS AND REVIVALISTS

#### DEBENDRANATH TAGORE (1817-1905)

Debendranath Tagore founded the **Tattwabodhini Sabha** (1839) and also published *Tattwabodhini Patrika*. Tattwabodhini Sabha amalgamated with the Brahmo Samaj in 1856. It also compiled selected passages from the Upanishads, known as **Brahma Dharma**.

#### KESHAB CHANDRA SEN (1838-1884)

Keshab Chandra Sen joined the Brahmo Samaj in 1857 and assumed its leadership in 1862. He established the **Sangat Sabha** for discussing religious and moral questions. He was in favour of radical reforms which were not liked by the older sections of the Samaj. The younger members...

also opposed the wearing of Brahmanical thread. There was an open conflict between the older and the younger sections and as a result of such conflict, Keshab Chandra Sen broke away from the original Brahmo Samaj in 1866 and formed a new organization known as the Brahmo Samaj of India or Bharatiya Brahmo Samaj. The new organization of Keshab Chandra Sen adopted radical reforms such as abolition of pardah, caste system, child marriage and polygamy; and encouraged widow remarriage and inter-caste marriage. He was also a pioneer in starting the Depressed Class movement which is the precursor of the Harijan Movement of M. K. Gandhi. Along with his followers, he set up a number of educational institutions for female education.

### **ISHWAR CHANDRA VIDYASAGAR (1820–1891)**

Ishwar Chandra Vidyasagar was born in Bengal on 26 September 1820. Owing to a great thirst for education, he studied Sanskrit and joined the Fort William College as the head of the department at the age of 21. He was also a philosopher, translator, philanthropist and entrepreneur. Ishwar introduced the concepts of admission and tuition fee and opened a teacher-training school which was used to train teachers to bring about unity and uniformity in their methods of teaching. He wanted the students to imbibe both the Western and Indian thoughts and to use the best practices for development. He was awarded the name 'Vidyasagar' for his knowledge.

A scholar of great depths, he dedicated himself to the cause of the emancipation of women. He specially objected the orthodox Hindu practices. For example, the widow women were supposed to shave their head and cover it. They were also denied the freedom of going out. Ishwar firmly held that when teenage girls or girls of even lesser age were married to much older men, they would become widows at an early age. Hence, he fought for women liberation and empowerment where he wanted them to marry at the right age and with a right aged person. It was due to his sincere efforts that obstacles to the marriage of widows were removed and the Hindu Widow Remarriage Act, 1856, was passed with the support of the British authorities. He made his son marry a widow. He played a leading role in promoting education of girls and started and helped in setting up a number of schools for girls. Vidyasagar did not concern himself much with religious questions. However, he was against all those who opposed reforms in the name of religion. He died due to ill health at the age of 70.

## **SOCIAL REFORM MOVEMENTS ACROSS RELIGIONS**

### **REFORM MOVEMENTS AMONG MUSLIMS**

As reformation took place within the Hindu religion, its practices and social institutions, a similar reform movement was also taking place within Islam. The Muslim upper classes had tended to avoid contact with Western education and culture and it was only after the revolt of 1857 that modern ideas of religious reform began to appear. The beginning was made by the Mohammedan Literary Society founded in Calcutta in 1863 by Nawab Abdul Latif (1828–1893).

It promoted discussion of religious, social and political questions in the light of modern ideas and encouraged upper- and middle-class Muslims to adopt Western education. It also played an important role in Muslim unity. The Muslim masses were also influenced by movements carried on by the Chishti Sufis who preached not only submission to God but also promoted the veneration of saints. Another movement is associated with Shah Waliullah in Delhi, who opposed the unorthodox religious practices and revived the Shia sect and strict monotheism. The philosophical and learned tradition of the Firangi Mahal in Lucknow was incorporated into the new educational syllabus and propagated throughout India during the 18th and the 19th centuries. Shariatullah of Bengal was the leader of the Faraizi movement which took up the cause of the peasants and even spoke against the caste system among the Muslims.

The most notable of the Muslim reformers was Syed Ahmed of Raebareli, in Uttar Pradesh, about whom it has been discussed earlier in this chapter. Syed Ahmed attracted the Muslim artisans of the declining weaving towns of Allahabad and Patna, finding a ready audience and giving the common people dignity and an identity through a common faith at a time of social dislocation. He felt that the religious and social life of the Muslims could be improved only with the help of modern Western scientific knowledge, culture and proper education. As an official, he founded schools at many places. He got many Western books translated into Urdu. The Aligarh movement started by him was largely responsible for the Muslim revival that followed. It provided a focal point for the scattered Muslim population in different parts of the country. Syed Ahmad's efforts extended to the social sphere as well. He worked for social reforms. He wanted women to be educated and advocated the removal of the *pardah*. He was also against polygamy.

There were several other socio-religious movements which in one way or the other helped the national awakening of the Muslims. Mirza Ghulam Ahmad had founded the Ahmadiyya movement in 1899. Under this movement, a number of schools and colleges were opened all over the country, imparting modern education. In the field of religion, the followers of this movement emphasized the universal and humanitarian character of Islam. They favoured the unity among Hindus and Muslims.

One of the greatest poets of modern India, Muhammad Iqbal (1877-1938), also profoundly influenced through his poetry the philosophical and religious outlook of the younger generation of Muslims as well as of Hindus. He urged the adoption of a dynamic outlook that would help change the world. He was basically a humanist.

## REFORM MOVEMENTS AMONG PARSIS

Religious reform began among the Parsis in Mumbai in the middle of the 19th century. In 1851, the Rehnumai Maz'dayasan Sabha or Religious Reform Association was founded by Naoroji Furdunji, Dadabhai Naoroji, S. S. Bengalee and others. They started a journal, *Rast Gofar*, for the purpose of social-religious reforms among the Parsis. They also played an important role in the spread of education, especially among girls. They campaigned against the entrenched orthodoxy in the religious field and initiated the modernization of Parsi social customs regarding the education and marriage of girls and the social position of women in general. In the course of time, the Parsis became socially the most Westernized section of Indian society.

## RELIGIOUS REFORMS AMONG SIKHS

Religious reform among the Sikhs was started at the end of the 19th century when the Khalsa College started at Amritsar. Through the efforts of the Singh Sabhas (1870) and with British support, the Khalsa College was founded at Amritsar in 1892. This college and schools set up as a result of similar efforts, promoted Gurumukhi, Sikh learning and Punjabi literature as a whole.

After 1920, the Sikh reform gained momentum when the Akali movement rose in Punjab. The chief object of the Akalis was to improve the management of the gurdwaras or Sikh shrines that were under the control of priests or mahants who treated them as their private property. In 1925, a law was passed which gave the right of managing gurdwaras to the Shiromani Gurdwara Prabandhak Committee.

## WOMEN REFORMERS

### PANDITA RAMABAI (1858-1922)

Born in the year 1858, Ramabai was an eminent scholar of her time. At a young age, she had to face adverse conditions in her life; however, being a very strong woman, she started to teach and her knowledge in Sanskrit stunned everyone whom she spoke to. Hence, she was awarded the title of Pandita and Saraswati for her meticulous scholarship.

Pandita Ramabai was an educationist even before she had turned 20 and propagated the idea of women's education and empowerment. She started the Arya Mahila Samaj to show her commitment towards education and social transformation. One of her famous statements in her speech is, 'It is not strange, my countrymen, that my voice is small, for you have never given a woman the chance to make her voice strong!' She was invited to America by her cousin for her medical degree graduation and her speeches gained her many followers who later formed the American Ramabai Association which helped in collecting funds for widow education. She wrote a book *The High-caste Hindu Women*, which sold 10,000 copies.

In her later stages of life, she converted to Christianity which shocked India as she had strong foundations of Brahminism. She is the driving source for many women who are working for women empowerment and Dalit empowerment.

### SAROJINI NAIDU (1879-1949)

*As long as I have life, as long as blood flows through this arm of mine, I shall not leave the cause of freedom...I am only a woman, only a poet. But as a woman, I give to you the weapons of faith and courage and the shield of fortitude. And as a poet, I fling out the banner of song and sound, the bugle call to battle. How shall I kindle the flame which shall waken you men from slavery....*

Born on 13 February 1879, in Hyderabad, Sarojini Naidu was the daughter of Aghorenath Chattopadhyay and Varada Sundari, and her father instituted the Hyderabad College, later known as the Nizam College. She was very intelligent and well versed in many languages at an

early age. She was the first woman governor of India and the first woman president of the Indian National Congress. Her meeting with Gopal Krishna Gokhale introduced her to many freedom struggle activists such as Mahatma Gandhi, Rabindranath Tagore and Annie Besant. Gokhale stirred her thoughts by asking to use her knowledge to fight for the freedom of the country and not just for writing. She contributed mainly to Salt Satyagraha where she gathered all women for the protest. She fought against the British in Champaran for the rights of the farmers. She was also a leading freedom fighter and made her contributions in the Civil Disobedience movement and Quit India movement along with other leaders. Sarojini's focus on women empowerment is worth highlighting. She shaped the Indian Women's Association, 1917, along with Annie Besant and also fought for equal voting rights of women. Sarojini lives in many hearts for her selfless contribution to the society.

### SUMMARY

It is a great privilege that India has had so many social reformatory and revivalist movements under intellectual reformers who have worked in shaping the society. These reformers and their movements have greatly contributed to the development and upliftment of the poor and the downtrodden. It has to be understood that all the reformers had mainly used an important weapon, that is, education. They have also insisted on education of the masses to prevent various problems that will affect the growth of the nation.

### TOP 10 TAKEAWAYS/MAIN POINTS

1. The impact of British rule in India led to a number of social and religious reforms.
2. Raja Ram Mohan Roy can be regarded as the central figure of India's awakening for championing the spread of modern education, science and technology and for his relentless fight against many social evils.
3. The Theosophical Society, under the guidance of Annie Besant, promoted studies of ancient Indian religions, philosophies and doctrines.
4. Swami Vivekananda, a great humanist, through his Ramakrishna Mission condemned religious narrow-mindedness, advocated free thinking and emphasized on service for the poor.
5. Jyotirao Phule and Savitribai Phule played a very prominent role in the upliftment of women as they found them to be the most oppressed humans in the society.
6. R. G. Bhandarkar and M. G. Ranade carried out their work of religious reforms in Maharashtra through the Prarthana Samaj by propagating inter-caste marriages, freedom from priestly domination and improvement of women.
7. Swami Dayanand Saraswati founded the Arya Samaj and pleaded for the right of individuals to study the Vedas and free themselves from the tyranny of priests. Besides all this, the organization fought against untouchability and caste rigidity as well as worked for promoting modern education.
8. Syed Ahmed Khan rightly felt that isolation would harm the Muslim community and to prevent that, he did his best to create a link with the progressive cultural forces of the outside world.

9. Religious reforms among the Muslims, Parsis and Sikhs were also carried out to uplift the people of the respective religions.
10. Women reformers such as Pandita Ramabai and Sarojini Naidu worked for the upliftment and empowerment of women as they found it to be important for our nation.

**Keywords:** Social reformer, movements, society, enlightenment

## GLOSSARY

**Reform:** The word reform or reformation means re (again) form (birth). This is used to stop any form of injustice that is happening.

**Social reformer:** Social reformer is a person who is working for change in the society. They can be an advocate, a teacher or a preacher who wants to bring a positive change in the society.



## MULTIPLE CHOICE QUESTIONS

1. Which among the following movements objected idol worship and emphasized on self-repentance?
  - a. **Arya Samaj**
  - b. Brahmo Samaj
  - c. Prarthana Samaj
  - d. Aligarh movement
2. Who were the founders of the Theosophical Society?
  - a. H. P. Blavatsky and Col H. S. Olcott
  - b. **Annie Besant and Col H. S. Olcott**
  - c. H. P. Blavatsky and Annie Besant
  - d. Annie Besant and Pandita Ramabai
3. Match the following:
 

a. Arya Samaj	Raja Ram Mohan Roy
b. Brahmo Samaj	Sir Syed Ahmed Khan
c. Prarthana Samaj	Swami Dayanand Saraswati
d. Aligarh movement	Dadoba Pandurang

**Ans.**

a. Arya Samaj	Swami Dayanand Saraswati
b. Brahmo Samaj	Raja Ram Mohan Roy
c. Prarthana Samaj	Dadoba Pandurang
d. Aligarh movement	Sir Syed Ahmed Khan
4. Which of the following is related with the Young Bengal movement?
  - a. **Derozians**
  - b. Arya Mahila Samaj
  - c. Widow Remarriage Association
  - d. Civil Disobedience

5. Who among the following reformers formed the Arya Mahila Samaj?
- Pandita Ramabai**
  - Sarojini Naidu
  - K. C. Sen
  - Debendranath Tagore
6. Why was the Mukti Mission started?
- To develop vocational training
  - To support education of women
  - To help young widows from deserted and abused families**
  - To help people below the poverty line
7. Who was given the title of Mahatma much before Mahatma Gandhi?
- Savitribai Phule
  - Pandita Ramabai
  - Swami Vivekananda
  - Jyotirao Phule**
8. Which woman reformer had a great contribution in Salt Satyagraha and Civil Disobedience movement?
- Annie Besant
  - Barada Sundari
  - Mahadev Govind Ranade
  - Sarojini Naidu**
9. Which of the following major Indian reformers was one of the reasons for abolishing Sati?
- Raja Ram Mohan Roy**
  - Swami Vivekananda
  - Ishwar Chandra Vidyasagar
  - Henry Vivian Derozio
10. Match the following:
- |                          |                   |
|--------------------------|-------------------|
| a. Brahma Samaj          | 1875              |
| b. Arya Samaj            | 1828              |
| c. Satyashodhak Samaj    | 1892              |
| d. Young Bengal movement | 1860s             |
| e. Aligarh movement      | 1820s             |
| f. Ramakrishna Mission   | 24 September 1873 |
- Ans.**
- |                          |                   |
|--------------------------|-------------------|
| a. Brahma Samaj          | 1828              |
| b. Arya Samaj            | 1875              |
| c. Satyashodhak Samaj    | 24 September 1873 |
| d. Young Bengal movement | 1820s             |
| e. Aligarh movement      | 1860s             |
| f. Ramakrishna Mission   | 1892              |

## REVIEW QUESTIONS

1. Write a note on one Muslim reform Movement and its contributions.
2. Describe the events where Sarojini Naidu has played an important role in the freedom struggle.
3. Write a note on Mrs Annie Besant as a woman reformer.
4. What is Brahma Samaj and what were its major contributions?

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75	A Comparative Analysis On Knowledge Management Practices Of Public And Private Sector Banks In Coimbatore SujithaPaul.H, Dr. R.Murugesan	58
76	Impact Of Training And Development Of Employees Efficiency And Effectiveness – Empirical Evidence Dr.M.Ganesan Alias Kanagaraj, Dr.S.Raja	59
77	Occupational Stress Of College Teachers With Special Reference To Sriperumputhur M. Venkatesan, Dr. R. Venkatesan	59
78	Work-Life Balance Of Women Teaching Fraternity In Bangalore City D.Bhuvaneshwari, Dr.P.Thirumoothi	60
79	A Panoramic Study On Neuro Marketing Dr.R. Karthika, Prof.M. Surya, Dr. E. Saranya	61
80	A Study On Consumers' Attitude Towards Organic Food Products In Salem District K.Prabha, Dr.T.A.Tamilselvi	61
81	A Study On Customer Gratification Towards Service Quality Of Low Cost Airlines In India Dr. S.P. Deepeka, Dr. N. Madhumithan	62
82	A Study On Factors Affecting The Consumer Intention Towards Online Food Delivery Services Dr. K. Vijayakumar, Mr.R. Padmanaban	63
83	A Study On Impact Of Celebrity Endorsement On Purchase Intention Of Fmcg Products Through E-Commerce S.Elango, Dr.M.Suryakumar	64
84	The Impact Of Gender Towards Consumer Preference & Satisfaction With Special Reference To Instamart S. Sairam, S. Vidhya	64
85	A Case Study Analysis On The Digital Nudging Of A Family-Owned Business In Pathanamthitta District. Merliyn Anna Thomas, Justin P. James, Dr. Leena K Cherian	65
86	A Study On consumers Perception And Attitude towards The Usage Of Organic Products In ThiruvallurDist Mr.B.Ravikumar, Dr.P.Raja	66
87	Guerrilla Marketing And Identifying The Factors That Influence Brand Image Namira P N, Dr. M. Kavitha	67
88	Effect Of Advertisement On Children On Their Parents A Study With Special Reference To Confectionary Product In Tirupur City Mrs.B.Jayanthi, Mr. Dr. D. Balamurugan	67
89	Influence Of Perceived Social Media Information Credibility On Online Purchase Decision AswathySadasivan	68

sample size of 150 respondents. In this research used two research instrument research tools have been used for the study, use the Simple Average, Chi-square test. The elements impacting the consumers to purchase some product could be family friends, health consciousness, quality, and price, easy availability of the product etc. In this research to current detailed review of natural food products in present life examine and identify the Attitude of organic food can be exploited by consumer attitudes to organic food products.

**Key words:** Consumer, Attitude, Purchase, Behavior, Organic food product.

### **A STUDY ON CUSTOMER GRATIFICATION TOWARDS SERVICE QUALITY OF LOW COST AIRLINES IN INDIA**

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#### **ABSTRACT**

Customer gratification is the significant tool to increase the number of passengers in airline industry. Low cost airline created a huge revolution in the aviation industry. Low-Cost Carrier (LCC) offers affordable prices with fewer comforts. These are typically described as cheaper, no-frills or budget airlines. The service quality given by these airlines increases its Customers. These airlines use service quality as one of their strategy to increase customers, to retain their customer's patronage and loyalty. Customers expect hygiene and clean environment for their wellbeing and safety. Decrease in customer satisfaction and increase in customer expectations have challenged businesses to come up with unparalleled methods of enhancing their quality of service. AIRQUAL method is utilized by the airline industry for their purpose of Research. This study makes use of SERVQUAL method for analyzing the Service Quality of Low Cost Airlines in India that leads to Customer Satisfaction. This study is based on primary data collected through questionnaire. The sampling method used here is convenient sampling. The tools for analysis used are mean analysis and percentage analysis. **KEY WORDS:** Customer gratification, Indian low cost airlines, service quality.

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06<sup>th</sup> & 07<sup>th</sup> September 2022



**Dr. V.R. PALANIVELU**

47	A Study On Investors Perception And Awareness Towards Impact Investing With Special Reference To Investors In The State Of Tamil Nadu Dr. K. Vijayakumar, Mrs. B. SumaiyaSherin	38
48	Innovative Services And Operational Mechanism Of Neo Banks In India Ajit Kumar B, Dr.Indu G. Krishnan	38
49	Modelling And Forecasting Of Stock Price Volatility Of Nifty 50 Companies Using Arch Model – An Analysis K. Kannan, Dr. S. Balamurugan	39
50	Operational Mechanism Of Repository Syatem (E- Insurance Account) In Insurance Industry Ajosh George, Ashish C Pius	40
51	Assessing Financial Literacy Levels Of Banking And It/Ites Employees Using Logistic Regression Dr.R.Vishal Kumar, Dr.P.Shanmugha Priya	41
52	Risk Management In Indian Financial Market Mrs.P.Revathi	41
53	A Study On Silicon Shortage And Its Impact On Global Economy Mr. S. Saravanan, Mr. M. Aadithyan	42
54	Influence Of Financial Inclusion On Financial Well-Being Of Low-Income Households In Chengalpattu District M. Stella & Dr. T. Ramachandran	43
55	A Study On The Working Conditions Of Construction Workers In Kozhikode District- Kerala Jisha.C.Chandran, Dr.K.Selvaraj	43
56	A Study On Problems And Challenges Of Fishermen In Thoothukudi Dr. B. Baranirani, Maria TherasSantrina. X	44
57	Job Satisfaction Among Lecturers With Relation To Certain Demographic Variables <i>Savitha K, J Venkatachalam</i>	45
58	A Study On The Influence Of Uncivilized Behavior At Work Place And Its Impact On The Performance Of Professionals Towards Discharging Their Services -With Special Reference To Chennai City Ms. K. Lakshmi, Dr. Rao Prashanth Jyoty, Ms. M. Mahalakshmi Priyadharshini	45
59	Enhancing Organizational Work Culture Through Human Value System <i>R Satish, K. Murugabhoopathy</i>	46
60	Developing And Sustaining Employee Engagement Practices And Its Impact On Employee Performance In Private Sector Banks During Pandemic Period R.Shruthi, Dr.J.Senthil Velmurugan	47

## **JOB SATISFACTION AMONG LECTURERS WITH RELATION TO CERTAIN DEMOGRAPHIC VARIABLES**

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**J Venkatachalam, Professor, Dept of Psychology, Periyar University, Salem 636011.**

### **ABSTRACT**

Academicians are crucial in providing the students with knowledge of education. Mostly, highly dedicated lecturers can achieve effective results by producing high-quality students who will contribute to their country in the future. This is only possible where lecturers can only be successfully retained in their jobs if they are happy. Job satisfaction contributes to superior performance and retention. Thus, the current study aims at exploring how age and marital status affect the dimensions of Job Satisfaction of lecturers. Data were collected from 164 lecturers, through purposive sampling method by online mode. Job satisfaction scale by Dr. Amar Singh and Dr. T.R. Sharma (1999) was included for measuring Job satisfaction dimensions. The results are taken and discussed accordingly. Hence there is a genuine need to keep lecturers satisfied with their jobs and careers. They will not only produce future leaders of high calibre, but they will also contribute to the development of any country by educating the next generation.

**Keywords:** Job Satisfaction, Lecturers, Age and Marital Status

## **A STUDY ON THE INFLUENCE OF UNCIVILIZED BEHAVIOR AT WORK PLACE AND ITS IMPACT ON THE PERFORMANCE OF PROFESSIONALS TOWARDS DISCHARGING THEIR SERVICES- WITH SPECIAL REFERENCE TO CHENNAI CITY**

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### **ABSTRACT**

The aim of the study is to define uncivilized behavior and cull out the impact of uncivilized workplace behavior in the performance of professionals those who have the

capability to prioritize, plan and apply strategies. Moreover, they have the ability to think practically, positively, compromise, communicate and address the risk. But even the mighty do slip i.e., emotionally stressed because of uncivilized workplace behavior. In this study we discussed about the profuse uncivilized behavior, how the professionals are handled those issues and get the control of their emotional balance. An online survey was administered and data were collected from 220 professionals like Teachers, Professors, Doctors, Managers, Lawyers, Bankers and so on. Our finding indicate that workplace incivility emerged as one of the significant factors in the relation between emotional intelligence and work-related outcomes. More specifically emotional-intelligence based intervention may represent the close alternative to intervention that targets workplace uncivilized behaviors in increasing the job satisfaction and organization commitment as well as decreasing the counterproductive work behavior.

**Keywords:** Uncivilized workplace behavior, Job Satisfaction, Performance, Emotional Intelligence, Impact

## **ENHANCING ORGANIZATIONAL WORK CULTURE THROUGH HUMAN VALUE SYSTEM**

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### **ABSTRACT**

In today's competitive world, it is imperative for any organization to increase and maintain their efficiency consistently. The efficiency of any organization is determined by various factors which mainly include the organizational culture. Organizational Culture is sometimes misunderstood as the development process, but many times it demands for a complete abolition and development of new cultures. Developing an Organizational culture is a brief process which includes: process of identifying the existing system/culture, analyzing the organization's goals and objectives, checking the effectiveness of the existing culture in line with the goals and objectives and developing a corrective measure/ new road map for building a strong and efficient organizational Culture. Developing and maintaining an Organizational Culture lies mainly in the hands of the workforce. Despite this, human values are mostly ignored when discussing about the organizational culture. This thesis will mainly analyze the importance and impact of



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10.	THE STIPULATION OF TECHNOLOGY FOR THE PREFERMENT OF QUALITY EDUCATION TOWARDS NEP-2020	<i>Sunny Thukral</i>	42-44
11.	A STRATEGIC IMPACT OF INFORMATION TECHNOLOGY FOR INDIAN HIGHER EDUCATION IN CONTEXT OF NATIONAL EDUCATION POLICY 2020	<i>Sapna Kumari</i>	45-48
12.	ONLINE PLATFORMS – MY EXPERIENCES IN THE TEACHING AND LEARNING PROCESS	<i>Madhusudanan S</i>	49-51
13.	NEP: AN INTERPLAY NETWORKING OF EDUCATION AND TECHNOLOGY	<i>Harpreet Kaur Sethi</i>	52-55
14.	SALIENT FEATURES OF NEP-2020	<i>Vibha Madan</i>	56-60
15.	IN PURSUIT OF MAKING EDUCATION GENDER INCLUSIVE: THE NEP 2020 WAY	<i>Gaurav Sharma</i>	61-64
16.	NATIONAL EDUCATION POLICY-2020 AND ITS CHALLENGES IN HIGHER EDUCATION	<i>Jagdish Kaur</i>	65-68
17.	THE USE OF TECHNOLOGY IN TEACHING AND LEARNING PROCESS	<i>Meenal Talus, Anuradha</i>	69-72
18.	MATHEMATICAL MODELS IN THE ROLE OF ARTIFICIAL INTELLIGENCE AND ONLINE TOOLS BOOST OUR TEACHING AND LEARNING GROWTH	<i>Kajal Rani, Shalu Rani</i>	73-78
19.	IMPORTANCE OF EDUCATION: MODERN APPROACH OF NATIONAL EDUCATION POLICY	<i>Rabiabir Kaur, Manpreet Kaur, Ajay Kumar</i>	79-83

## ONLINE PLATFORMS – MY EXPERIENCES IN THE TEACHING AND LEARNING PROCESS

*Madhusudanan S*

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Vaishnav College, Arumbakkam, Chennai, Tamil Nadu.*

### ABSTRACT

“Art is long, but life is short” is the adage and a teacher is no such exception to this adage. As a late twenty-first-century school/college student, I have witnessed a few classroom transitions from blackboard to overhead projectors. However, the present scenario is different, and the teaching and learning process can be written or viewed from pre-COVID-19 and post-COVID-19. The online classes were conducted during the lockdown to have a continual teaching-learning process. This article is based on the premise of my understanding of e-learning as a faculty to survive and sustain in online platforms or web-based learning platforms such as Google Meet, Zoom, MS Teams and Google Classrooms. The article also shares the journey of a teacher becoming a student in exploring these online platforms. The use of Mentimeter, poll everywhere, slido in classroom teaching both online as well as offline has been refreshing to students to have real-time interaction and this paved way for formative assessment too. The article also discusses the pitfalls of using online platforms in teaching-learning.

**Keywords:** *online teaching, Mentimeter, teaching-learning, COVID-19*

### INTRODUCTION

“A learning system based on formalised teaching but with the help of electronic resources is known as E-learning” (The Economic Times, 2023). The teaching-learning process should be student-centric rather than teacher-centric. The role of a teacher has shifted “from sage on the stage to guide on the side” (King, 1993). Purposive, reflective, negotiated, critical, complex, situation-driven and engaged are the key principles of active learning as outlined by Barnes, 1989 (as cited in Yengin et al., 2010). E-learning should promote active learning than pushing the students to passive learning. From a student to becoming a teacher is a career choice, yet the teacher becoming a student again in exploring these online platforms has become a mandate among the tech-savvy students who are digital natives (Prensky, 2005). Nurul Haidah et al., (2020) defined adaptability as “the capacity to transform current behaviour in response to a new situation” (as cited in Basar et al., 2021) and I believe this adaptability is the key to success in adversity. This paper is an attempt to explain a teacher’s endeavour in the usage of online platforms in the teaching-learning process.

### TEACHER AS A STUDENT

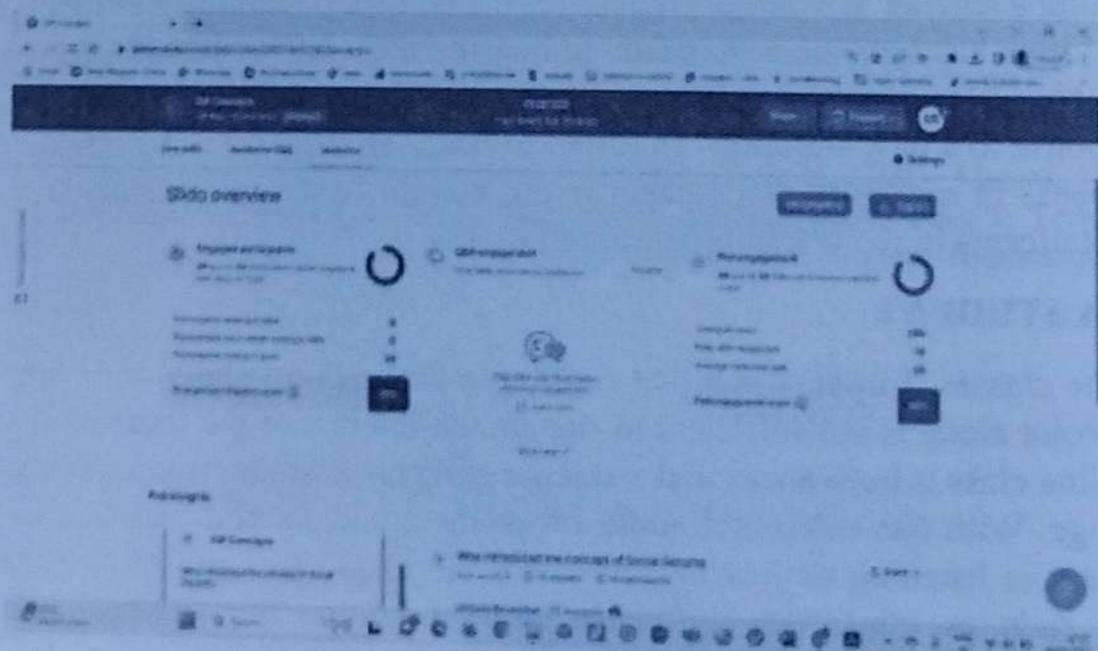
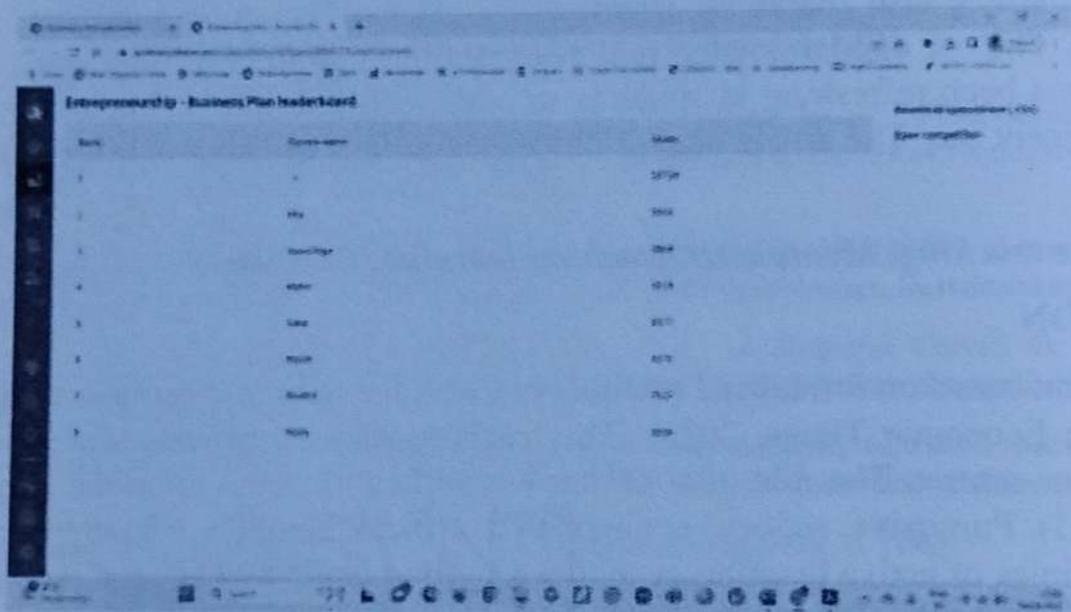
After a few online classes, I understood that running a PowerPoint show or giving a lecture with or without a PowerPoint alone is not sufficient to sustain the interest of the students. I suppose, engaging students in an online class is both an art and a science. Engaging students effectively in an online class is quite a challenge. With the video and audio off at the student’s end, the teacher is clueless about whether the student is listening or just logged in for the class. To sustain the student’s interest few online resources such as <https://wheelofnames.com/> and <https://pickerwheel.com/> were used. The

students' names were typed before the start of the online classes through google meet. At the end of the class or in between the interaction the wheel of names is used to pick the student to explain the concept of discussion or a question posed as part of the formative assessment. If a student is called by the name that student might feel 'why the teacher is calling me?' By using the 'wheel of names' the students were vigil during the class.

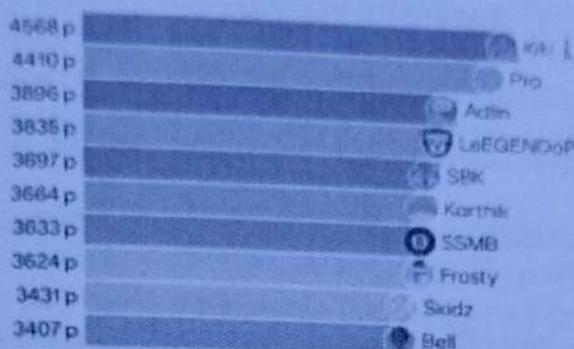
Parkes et al., (2015) said that students have a low level of preparedness towards the use of a Learning Management System (LMS). The teachers have a greater role in preparing the students for the effective use of LMS. Partlow & Gibbs (2003) advocated that the design of online programs should be "creative, interactive, relevant, student-centered, and group-based". The online platforms which I used (in the basic plan) such as Mentimeter, Polleverywhere and Slido during the teaching-learning process supported the views of Partlow & Gibbs (2003).

### BECOMING THE DIGITAL TEACHER

In June 2021, I enrolled in the TCS Ion (<https://learning.tcsionhub.in/courses/career-edge-digital-teacher/>)online learning platform which offered Digital Teacher certification. This course has opened various avenues for me in digital teaching and digital assessments. Besides this program, I enrolled in a few workshops and Faculty Development Programmes (FDPs) on online resources for teaching.



## Leaderboard



Images showing the activities of students in online platforms during the class

## MY EXPERIENCES

The online teaching is not giving lecture as giving lectures in face-to-face scenarios in classroom. The distractions are more for students as teaching was in virtual mode. There is no social control for students in learning on an online platform. The teacher's technical skills, teaching styles, and interaction with students during online learning play a vital role. The teacher should explain the objective behind the use of these platforms. The students interacted better in class during the discussion of the NASW Code of Ethics using the quiz mode in polleverywhere. If the Code of Ethics was taught in a lecture mode the students would have lost interest.

## CONCLUSION

There is no denying that these platforms aided in teaching-learning and students could continue their education without a break even during the pandemic. The National Education Policy (NEP) 2020 advocates for Online and Digital Education: Ensuring equitable use of technology (Part III). In my personal view, online platforms aid the teacher in the evaluation of the performance of students in addition to the traditional approaches. Barring the technical glitches during online learning, the students have expressed interest and the students also tried their hands at these online platforms during their presentations in classes. As we slowly shift to classroom-based teaching post-COVID-19 the blended modes of learning (NEP, 2020) in education will boost student morale.

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## **Editors**

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# Contents

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<i>Acknowledgement</i>	(v)
<i>Preface</i>	(vii)

**Session-I**  
**Information Technology**  
*Session Chairperson: Prof. Urvesh Chaudhery*  
(GIBS, New Delhi)  
*Co-Chair: Dr. Sarita Kaushik*  
(HOD, MCA, DAV Institute of Management, Faridabad)

<b>1. Uncovering the Pros and Cons of Work from Home: A Study on IT Professionals in the Post-Pandemic Era</b>	<b>3</b>
<i>Ridhima Goel &amp; Dr. Jagdeep Singla</i>	
<b>2. Brain Computer Interfaces in Healthcare</b>	<b>12</b>
<i>Bhagvender Singh, Devansh, Ramandeep Suthar &amp; Dr. Kavita Arora</i>	
<b>3. Integration of ICT in Teacher Education</b>	<b>25</b>
<i>Mr. Mohan Gaur</i>	
<b>4. The Impact of Digital India on Society</b>	<b>32</b>
<i>Ms. Vandana Rastogi</i>	
<b>5. Exploring the Impact of Artificial Intelligence on Labour Market Dynamics: An Analysis of the Effects of Automation and Augmentation on Employment, Wages, and Inequality</b>	<b>43</b>
<i>Dr. Padmakar Pulavarthi</i>	
<b>6. Optimized Edge and fog Computing in Mobile Adhoc Networks</b>	<b>53</b>
<i>Vaishali Sehrawat &amp; Dr. Banita</i>	
<b>7. Innovations in Water Management: The Role of Cybersecurity in Achieving Sustainable Development Goals - A Review</b>	<b>61</b>
<i>Reena Yadav &amp; Dr. Priti Sharma</i>	

8. **Solid Waste Management (SWM) – Usage of Information Communication Technologies (ICT), and Internet of Things (IoT)** 77  
*Ajay Kumar Pareek & Hridyansh Pareek*
9. **Blockchain Integrated with IOT Devices in Various Applications** 82  
*Preeti & Dr. Banita*
10. **Chatbots: A Conversational Evolution** 88  
*Shivoam Maini*
11. **Detection of Copy-Move Forgery in Digital Images Using Deep Learning (DL) Techniques** 94  
*Navid Ahmad Dar*
12. **Development and Synthesis Technique to Fabricate Graphene for Schottky Diode** 112  
*Neeraj, Deepti Singh & Meenakshi*
13. **Cloud Kitchen: An Insight into New Taste of India** 116  
*Dr. Nidhi Sheoran*
14. **Advanced Research in Computer Technology and Software Application** 130  
*Dr. Parveen Rani*
15. **A Study of New Entrepreneurship Models in Digital Era Through Bibliometric Visualizing from 2010 to 2023** 139  
*Sanjna*

**Session-II**

**Humanities and Social Science**

*Session Chairperson: Prof. Ajay Pratap Singh*

(Professor & Head, Department of Psychology,  
VBS Purvanchal University, Jaunpur)

16. **Women Leadership and Participation in Rural Area: Comparative Study of Tamil Nadu and Uttar Pradesh** 153  
*Vandana Singh & Dr. Shalini Saxena*
17. **Role of Shgs in Development of Women Entrepreneursip for Streghthening Aatma Nirbhar Bharat in Assam** 163  
*Mrs. Neha Yadav & Dr. Rajpol Bharadwaj*
18. **Depicting Asia: Tracing Discursiveness in *The Tainted*** 177  
*Ms. Manisha*

<b>19. Consumer Awareness Towards Solar Water Pumping System: An Empirical Analysis</b>	<b>183</b>
<i>Pooja Rani &amp; Dr.Garima Dalal</i>	
<b>20. Males and Domestic Violence: In Indian Scenario</b>	<b>190</b>
<i>Geeta Sharma</i>	
<b>21. Legal and Institutional Mechanism for Prevention of Gender Biases at Work Place</b>	<b>199</b>
<i>Sawitri Devi</i>	
<b>22. India's Journey Towards Sustainable Development</b>	<b>208</b>
<i>Rajapurohitham Sadhana &amp; V.S.N.S. Aditya Vedula</i>	
<b>23. Impact of Government Initiative in the Field of Sustainable Development</b>	<b>220</b>
<i>Mr. Rohit Sinha &amp; Mr. Suraj Sharma</i>	
<b>24. Ancient India &amp; Democracy</b>	<b>228</b>
<i>Dr. Yogwati Pareek, Dr. Anita Yadav &amp; Manoj Kumar</i>	
<b>25. Sustainable Development and its Goals in India</b>	<b>235</b>
<i>Stuti Gupta &amp; Dr. Utpala Das</i>	
<b>26. Role of Organic Products in Sustainable Consumption</b>	<b>245</b>
<i>Ms. Nirmala &amp; Dr. Suman Pahal</i>	
<b>27. A Study on the Impact of Population Growth on the Sustainable Livelihood of People in the 21st Century Society</b>	<b>251</b>
<i>Fr. Baiju Thomas</i>	
<b>28. Corporate Social Responsibility and Sustainability in the Higher Education Sector: A Systematic Literature Review and Future Outlook</b>	<b>262</b>
<i>Pravash Ghosh</i>	
<b>29. Worldwide Growth of SDGs with Reference to Quality Education</b>	<b>279</b>
<i>Kapil Bhuker, Dr. Vanita Rose, Shilpi Sindhu, Dr. Savita &amp; Pardeep Malik</i>	
<b>30. A Theoretical Study on the Contribution of Mathematics to a Sustainable World</b>	<b>293</b>
<i>Ms. Kiran Kalia, Dr. Kiran Gupta &amp; Dr. (Prof.) Bishan Singh Nagi</i>	
<b>31. Reforms in Education System in India through New National Education Policy-2020</b>	<b>300</b>
<i>Sarika &amp; Niharika</i>	

**Session-III**

**Humanities and Social Science**

*Session Chairperson: Prof. Ulfat Muhibova,*

**Professor,** Tashkent State University of Oriental Studies South Asian  
Languages Department, Uzbekistan

*Co-Chair: Prof. Parul Jhajharia*

Dean Management, MRIU, Faridabad

32. **Defender and Demolisher: Toni Morrison's Sula as a Modern Black Lady** 309  
*V. Abigail & Dr. M. Rakesh Babu*
33. **A Lacunae: Paucity of Menstrual Knowledge and Practices Among Homeless Adolescents** 314  
*Amreen Farooq & Dr. Rama Srivastava*
34. **A Study on Public Perception and Preferences Towards Urban Street Trees in Bengaluru, Karnataka** 328  
*Tincy Thankachan & Dr. Mahesh E*
35. **Stress Diagnosis among Academic Fraternity using Swarm Intelligence Techniques** 336  
*Ritu Gautam & Manik Sharma*
36. **The European Crisis: An Exhaustive Analysis** 349  
*Ms. Vasundhra*
37. **Non-Disabled SIBLING'S Roles and Perceived Differences Towards Siblings with Disability** 356  
*Dr. S. Madhusudanan*
38. **Effect of 12 Weeks Aqua Aerobic Training on Flexibility Among Middle Age Women of Manipur** 364  
*Bichitra Singha & Prof. T. Inaobi Singh*
39. **Role of Toys in Improvement of Learning of Children** 371  
*Ms. Pooja Rani, Dr. Ashish Kumar & Dr. Pushpdeep Dagar*
40. **Childhood Adversities and Work Disability** 381  
*Deepa K Damodaran*
41. **Issues and Challenges of Migrant Workers in COVID-19** 392  
*Ms. Meenakshi & Dr. Ashima Tandon*

## Non-Disabled SIBLING'S Roles and Perceived Differences Towards Siblings with Disability

Dr. S. Madhusudanan\*

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### ABSTRACT

*The siblings function as important agents of socialization and contribute to socio-emotional development. This article traces the roles and differences as perceived by non-disabled siblings who are biological siblings through Focus Group Discussions (FGDs). Focus Group Discussion (FGD) was conducted with the respondents (non-disabled siblings). In each FGD 10-12 respondents participated and four FGDs were carried out on the themes (1) Roles of non-disabled siblings towards their siblings with disabilities (2) Perceived differences between the respondents and the siblings with disabilities (3) How the non-disabled siblings felt when they heard their sibling(s) have some disability (4) Ways in which the non-disabled siblings are affected because of their siblings with disabilities respectively. The non-disabled siblings expressed their concerns and views on the domains of education, caregiving roles, and the future needs of siblings with disabilities. The article also outlines the feelings of non-disabled siblings when they heard their sibling (either brother or sister) has some disability and how the non-disabled siblings are affected because of their sibling's disability. The sibling relationship is a life-long relationship which plays a vital role between siblings and the sibling relationship is even more pertinent and must be studied among siblings with disabilities and their non-disabled siblings. The article stresses the sibling relationship could be strengthened by the parents discussing the actual condition of the disability and not concealing the facts.*

**Keywords:** *Non-Disabled Siblings, Siblings with Disabilities, Focus Group Discussion, Sibling Relationship, Parental Care.*

---

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## **1. Introduction**

Harriss-White (2003) points out that “disability is a relative term because cultures define differently their norms of being and doing”. Disability is “a structural relationship between people with impairment and a discriminating society” (Shakespeare & Watson, 1998). Social Work Dictionary defines disability as a “temporary or permanent inability to perform normal activities, usually as a result of a physical or mental condition or infirmity” (Barker, 1995). “Siblings are those with whom one most closely shares genetic, family, social class and historical background and to whom one is tied for a lifetime by a network of interlocking family relationships” (White, 2001). Siblings are “attachment figures, antagonists, playmates, protectors and socializers” (Davies, 2002). Non-disabled siblings are those who do not have any form of disability as outlined in the Rights of Persons with Disabilities Act (2016). This article traces the roles and differences as perceived by non-disabled siblings who are biological siblings. The article also outlines the feelings of non-disabled siblings when they heard their sibling (either brother or sister) has some disability and how the non-disabled siblings are affected because of their sibling’s disability. Edwards et al., (2006) have said giving attention to sibling ties can disclose shrouded aspects of their everyday intimacy that are little researched. Powell & Gallagher (1993) notes that “sibling provide a continuing relationship from which there is no annulment”. Sibling relationships can be studied as a ‘dyad relationship’ and can be considered as being composed of two attitudes: that of one towards the other and that of the other towards one. By knowing the views of the non-disabled siblings, the sibling relationship could be strengthened.

## **2. Review of Literature**

Madhusudanan & Nalini (2017) found that even if one of the siblings has some kind of disability, the siblings without a disability do not want to part away from the existing relationship. However, the siblings without disabilities expressed different emotions like worry, anger, guilt, and sadness. The study also pointed out that the siblings without disabilities lacked proper guidance and information about their siblings’ disabilities from their parents which affected their psychological well-being. Talbott (2014) reported that sibling’s disability type has no difference in empathy or compassion in non-disabled siblings, however, non-disabled female children expressed greater empathy than their non-disabled male counterparts. The gender dyads (male-male, male-female, female-female and female-male) whether same or different were also non-significant in showing empathy or compassion in the relationship. Dervishalija & Murati (2014) stated that adolescent non-disabled siblings are involved in caring

for their siblings with disabilities in socializing, walking, physical needs, supervision, entertainment, and education. Living with a sibling with a disability provided experience to be more compassionate, altruistic, tolerant and be more responsible. The non-disabled sibling has not talked about their sibling's disability to others and avoided the talk when someone enquires about the disability. Lam, Solmeyer & McHale (2012) reported that children with closer sibling relationships had higher levels of empathy towards their siblings. The siblings function as important agents of socialization and contribute to socio-emotional development.

### **3. Materials & Methods**

Siblings have an influence on one another's behaviour, learning, and development throughout the life span that is relatively independent of their genetic potential (Cicirelli, 1995). The needs of non-disabled siblings are often ignored by parents and professionals (Vadasy et al., 1984). "The work involved in designing and implementing sibling research is difficult, but the benefits are great" (Stoneman, 2005). To elucidate the qualitative responses, Focus Group Discussion (FGD) was conducted with the respondents (non-disabled siblings). In each FGD 10-12 respondents participated and four FGDs were carried out on the themes

1. Roles of non-disabled siblings towards their siblings with disabilities
2. Perceived differences between the respondents and the siblings with disabilities
3. How the non-disabled siblings felt when they heard their sibling(s) have some disability
4. Ways in which the non-disabled siblings are affected because of their siblings with disabilities

### **4. Responses from the Non-Disabled Siblings**

#### ***4.1 Roles of the non-disabled sibling***

The following are the statements given by the non-disabled siblings when asked about the roles in their sibling's life. Younger sister, age 16 was equivocal and said 'There are roles to play but I don't know what I should do I will make her happy'. One respondent (younger sister, age 12) said 'He will take care of me in the future. One of the respondents (elder brother, age 18) said 'I cannot predict the future the other respondent (elder sister, age 17) said 'I don't know'. Most of the respondents addressed the future needs of their siblings.

**In Education**

*"I will teach him how to do homework and to write. I will buy things for her and I will drop her at the school bus stop (younger sister, age 17)*

*I wish to give him good education (younger brother, age 14)*

*I will make her study well and make her get good employment. I will make her self-reliant (elder sister, age 17)*

*I should make her talk well and make her study well (will make him a doctor) (younger sister, age 10)*

*I will teach good things (younger brother, age 17)"*

**In caregiving roles**

*"Take care and make him cured of the disability (younger brother, age 15)*

*I will take her to hospital and cure her (elder brother, age 18)*

*I will take care of him, and take him to the hospital (younger brother, age 12)*

*Give him a peaceful environment, and take care of him till death (younger sister, age 15)*

*I should look after him, He should not get any difficulty (elder sister, age 12)*

*I will solve his problem. I will keep him with me, I will look after him in a nice fashion (younger brother, age 18)"*

**In addressing the future needs**

*"He is talented. I will make him survive. It is not a disability (younger sister, age 16)*

*I will buy items whichever he asks (elder sister, age 19)*

*I will spend half of my life with him (elder brother, age 14)*

*I will bring her up in a respectable position in society (elder sister, age 11)*

*I will give great attention and help him a lot (elder brother, age 16)*

*As a good friend, I will be supportive (younger brother, age 12)*

*I will take care of her life long (elder brother, age 17)*

*I will do whatever is good for her and nobody should beat him. (Younger sister, age 14)*

*I will buy a house for her, secure her a job, and put her in college (elder sister, age 18)*

*I will take care of him affectionately (elder brother, age 10)*

*I will fulfil her needs (elder sister, age 13 and younger brother, age 12)*

*I will give him a better future (elder sister, age 11)*

*I will take care of him affectionately (elder brother, age 10)*

*I will fulfil her needs (elder sister, age 13 and younger brother, age 12)"*

#### **4.2 Differences between non-disabled siblings and siblings with a disability**

The sister/brother of a sibling with hearing impairment said their sibling could not speak or hear. Apart from that they did not point out any other differences between the two. However, the siblings of children with intellectual disabilities pointed out myriad differences between the two. The differences pointed out by them are as presented below,

##### **On Cognition**

*"I am normal but he has the low mental ability (elder sister, age 16)*

*She behaves like a seven-year-old child and has less mental maturity (elder brother, age 18)*

*He could not understand, and he gets angry quickly (younger brother, age 12)*

*Low in thinking capacity, remembering things and low in memory and poor in expressing things (younger brother, age 10)*

*The activities which are performed are immature concerning age (younger sister, age 13)*

*He stammers while speaking, and mental growth is low (elder brother, age 11)"*

##### **On Health**

*She acquires fits (elder sister, age 13)"*

##### **On daily activities**

*"He cannot speak (elder sister, age 13)*

*He is lazy and will not work (younger sister, age 17)*

*He cannot speak properly and has difficulty in toilet habits and bathing (elder sister, age 15)*

*He does not know what is good and bad. He cannot speak or walk like me (elder sister, age 13)*

*She cannot function like me (younger brother, age 17)"*

##### **On perceiving no difference**

*"The difference is only in age, nothing more than that (younger sister, age 16)*

*My sister is more talented than me (younger brother, age 13)*

*I will not see any difference between us, he is also like me (elder brother, age 19)*

*Everything is equal between us, there is no difference (elder sister, age 13)"*

### **On social relationship**

*"Maintaining relationships with others and going to a normal school (elder brother, age 19)*

*He is more brilliant than me, but he cannot walk (younger brother, age 14)*

*If my mother says do not do it, he will do that. He is adamant and I am not (younger sister, age 13)*

*Whatever he does is all different (elder brother, age 10)"*

### **4.3 Hearing their sibling has a disability for the first time**

The feelings expressed by the non-disabled siblings after hearing for the first time that their sister/brother has a disability are difficulty, pity, sadness, crying, regret, feeling very bad, shock, anger, worry and confusion.

The expression of the respondents is recorded below: -

*"I did not believe at first, but later I understood myself (elder sister, age 11)*

*I prayed to God for his recovery (elder sister, age 15)*

*Why it happened to me (elder brother, age 13)*

*Why it happened to him (younger sister, age 16)*

*I thought my brother could be cured (younger sister, age 16)*

*I am adjusting and controlling my feelings for my brother (elder sister, age 13)*

*Why he is like that, I should only look after him (younger sister, age 17)*

*What could be done to cure him (younger sister, age 16)*

*I was courageous and believed she will be normal (younger brother, age 11)*

*I should not sacrifice my sister, I should only look after her (younger sister, age 13)*

*I did not feel bad (younger sister, age 12)*

*He cannot talk like me (elder sister, age 19)*

*My brother will not be able to speak with me (younger sister, age 14)*

*How he will behave if he grew up? (Elder brother, age 14)*

*I kept quiet as I could not understand (younger sister, age 16)"*

### **4.4 How are non-disabled siblings affected because of the sibling with a disability**

About three-fifths of the respondents (61.2 per cent) said they are not affected by their sibling with a disability. However other non-disabled siblings said they are affected in another way. Their responses are presented below: -

**Perceived differences in Parental care and affection**

*"My mother is not giving attention to me (elder brother, age 18)*

*My mother's affection is less towards me because of my sibling (younger sister, age 17)*

*My sibling loses things and mother scolds me for that act (younger sister, age 15)"*

**Personal relationships between siblings**

*"He disturbs me during examination time. If I get low marks, my mother beats me up. He asks for things which I possess (younger brother, age 17)*

*My sibling beats me and snatches and tears my notebooks (younger sister, age 13)*

*Mother asks me to look after him if we both are alone at home (elder sister, age 11)*

*Sharing things between us became less (younger sister, age 14)"*

**Worries of non-disabled siblings**

*"I am worried thinking when my brother's problem will be cured (younger brother, age 14)*

*My brother is not like other brothers (elder brother, age 10)*

*I cried thinking 'If this disability happened to me, how it would be?' (Younger brother, age 14)*

*I feel disturbed because of him (elder sister, age 16)*

*Often talks indifferently (elder sister, age 13)*

*I am disappointed as my brother cannot walk (younger brother, age 14)*

*I cannot talk or play with my brother (younger sister, age 11)*

*Like other brothers/sisters, my brother could not talk with me (elder sister, age 11)*

*Sister is not talking, I am saddened (elder brother, age 16)*

*He is not understanding what I am telling (younger brother, age 13)"*

**Social Stigma**

*"In public places, people around us mock both of us (younger brother, age 14)"*

**5. Conclusion**

The non-disabled siblings supported their siblings in many ways in their day-to-day activities. They teach the alphabet, arrange the sibling's school bags and lunch bags, and help them with doing homework, bathing, dressing, and feeding food. Siblings have assumed a social-role structure (Buhrmester, 1992).

The non-disabled siblings play together with toys, watch television, help siblings with their studies and homework, interact and fight. The responses from the FGDs showed that the respondents could see the differences but could not understand fully the reasons for the differences between them. The reason for not exactly outlining the differences is that the parents have not discussed the disability condition with the non-disabled siblings. The sibling relationship could be strengthened by the parents discussing the actual condition of the disability and not concealing the facts.

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# NATIONAL CONFERENCE PROCEEDINGS ON MULTIDISCIPLINARY RESEARCH AND INNOVATION

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15	Pandemic Literature: An Outline Drawn Through Jose Saramago's Blindness <b>Mrs. Rini Robert &amp; Dr. P. Bala Shanmuga Devi</b>	86-88
16	Assessment of Entrepreneurial Skills Among Arts And Science College Students <b>V.Regima &amp; Dr. C. Braba</b>	89-94
17	Production of Pepper In India <b>Ratish Mon A.V.</b>	95-100
18	Assessment of Entrepreneurial Skills Among Arts And Science College Students <b>V.Regima &amp; Dr. C. Braba</b>	101-106
19	The Impact of Big Five Personality Traits on Job Performance of Faculties Among Arts and Science Colleges <b>AuslienNanci J.R &amp; Dr. S. Jeevitha</b>	107-111
20	A Study on Addiction to Smartphones among The College Students With Special Reference to Nagercoil. <b>K. SahayaPrincelinGisha &amp; S.Merlin Vista</b>	112-115
21	Policyholders' Perception of Enactment on Insurance Companies <b>Mrs. K. Merlin Chithra Selvi &amp; Dr. Marimuthu, K N</b>	116-126
22	Postcolonial Study on Crossing Physical and Psychical Frontiers in the Select Novels of Salman Rushdie. <b>M. Maria Clastin Dias &amp; M. PrabhaPunniavathy</b>	127-132
23	Impact of Demographic Transition on Economic Growth And Sustainability In India <b>Mamatha M. S &amp; Dr. Uma H R</b>	133-146
24	Impact on Stress Management of Employee in Service Industries With Special Reference To Nagercoil District <b>V. Janani &amp; Dr. N. Suthakar Librarian</b>	147-152
25	Trade Liberalization and Industrial Performance: A Co integration Analysis (1970-2023) <b>Hema Sharma</b>	153-162
26	Modulational Instability Analysis of a (2+1) dimensional ferromagnetic Spin system <b>P. Hema &amp; M. M. Latha</b>	163-168
27	A Study On The Impact Of Artificial Intelligence In Digital Marketing. <b>Dr. B. Devamaindhan &amp; K.S. Felix Aaron</b>	169-174
28	Contextualizing <i>Indulekha</i> - Historical Nuances And Cultural Perspectives <b>Bijesh V Jose</b>	175-179
29	A Study on Labour welfare measures in the Textile industry with Special Reference to Kanyakumari District <b>Arthi.L.N</b>	180-186
30	A Study of Emerging issues of E-Banking in India <b>Amita Sannaki</b>	187-193

A STUDY ON THE IMPACT OF ARTIFICIAL INTELLIGENCE IN DIGITAL MARKETING.

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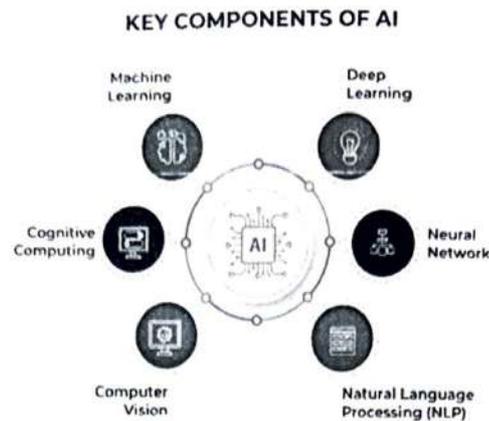
**Abstract:** Information technology and its applications have experienced rapid growth over the past decade. This has contributed to a shift in the way we perceive the world and conduct business. Under the influence of information technology, business and commerce have benefited from increased efficiency, productivity, and profitability. Increased productivity has enabled the rapid and precise production of large quantities. Emerging "third-platform" technologies, such as data analytics, mobile devices, automation, and artificial intelligence (AI), are significantly changing the manner in which society and individuals interact. A good illustration of how new software solutions, machine learning, and big-data analytics are changing the game can be found in the use of marketing.

The present examines the evolving marketing landscape, particularly digital marketing. The chapter proceeds by discussing potential digital marketing sectors where artificial intelligence has made its mark.

**Keywords:** Artificial Intelligence, Digital Marketing, Artificial Intelligence Marketing, Business Forecasting, *Marketing Strategy*, *Personalization*

## INTRODUCTION

Artificial intelligence (AI) is a broad area of computer science concerned with the development of intelligent machines able to perform tasks that ordinarily require human intelligence. Typically, the phrase refers to the objective of creating systems with human-like cognitive abilities, such as the ability to reason, discover meaning, generalise, or learn from experience. Artificial intelligence (AI) marketing is the process of utilising customer data to predict the customer's next action and enhance the customer journey. AI provides the means to bridge the gap between data science and execution by sifting through and analysing previously insurmountable amounts of data. The creation and storage of data is already occurring at a tremendous rate, and each day it grows exponentially. It is predicted that by the end of 2022, the world would have created and consumed over 94 zettabytes of data (1 zettabyte = 1 trillion terabytes), with 80 to 90 percent of it being unstructured. Big data and advanced analytic solutions have enabled marketers to construct a more accurate picture of their target audiences than ever before. Both structured and unstructured data can be processed by artificial intelligence with exponentially greater speed and accuracy than any human could. It is a major point of interest for businesses that struggle to organise their consumer data in a straightforward manner. Marketers are leveraging the capacity of machine learning to establish relationships between data points in order to gain customer base insights. These systems are capable of analysing speech to determine emotion from spoken language, creating visual representations of social media trends, and crunching data to make predictions.



### Literature Review:

The essence of marketing has not changed, but the manner in which we communicate has altered marketing. It is constantly evolving. This is where the major shift has occurred. The key is how we tell the story and the medium through which we tell the story, not the art of storytelling itself. Artificial intelligence and machine learning will bring about major changes in marketing, just as they will in business. – Sanjiv Mehta, CEO & MD of Hindustan Unilever Ltd. (*Corporate citizen*)

It is not difficult to argue that AI will play an increasingly important role in marketing in the future. Even today, most of the components of an AI-based strategy are in place. Increasingly, modern marketing is quantitative, targeted, and tied to business outcomes. Increasingly, advertisements and promotions are tailored to individual consumers in real time. Companies use a variety of channels to reach customers, but all increasingly rely on digital content. Many agencies that work with company marketers have developed their own analytical capabilities. - Thomas H. Davenport (*Artificial Intelligence for Marketing by Jim Sterne*)

In the 21st century, artificial intelligence (AI) has become an important area of study in virtually all disciplines, including engineering, science, education, medicine, business, accounting, finance, marketing, economics, stock market, and law (Halal (2003), Masnikosa (1998), Metaxiotis et al. (2003), Raynor (2000), Stefanuk and Zhzhikashvili (2002), Tay and Ho (1992), and Wongpinunwatana and Goyache (2003) note that it is difficult to keep up with the proliferation of studies in the field of artificial intelligence (AI) (Ambite and Knoblock, 2001, Balazinski et al., 2002, Cristani, 1999, and Goyache, 2003). – S.A.Oke (*International Journal of Information and Management Sciences.*)

How does the human mind function, and can non-humans have minds? are two of the universe's most fundamental questions that philosophers have spent over 2,000 years attempting to answer. Nevertheless, these questions remain unanswered. Some philosophers have adopted the computational approach known as artificial intelligence. According to the father of artificial intelligence, John McCarthy, artificial intelligence is "The science and engineering of making intelligent machines, especially intelligent computer programmes." Artificial intelligence is a method of making a computer, computer-controlled robot, or software think intelligently.

However, there have been numerous myths and criticisms by other scientists claiming that such highly complex behaviours as love, creative discovery, and moral decision-making will always be beyond the capabilities of any machine. Some even believed that artificial intelligence would lead to machine rule. Some argue that artificial intelligence is nothing but

jargon dressed up in technical terms, but it is now an essential foundation for modern technology and solves many difficult computer science problems. While AI will be achieved by studying how the human brain thinks and how humans learn, decide, and work while attempting to solve a problem, and then using the results of these studies as a foundation for creating intelligent software and systems. – Maria Johnsen (*The future of Artificial Intelligence in Digital Marketing*)

#### **Research Methodology:**

This paper examines the various facets of the idea of artificial intelligence marketing. This paper is a descriptive study in which examples are cited based on references from available secondary sources and the author's personal experiences. The study suggests measures that can assist marketers in enhancing their marketing strategies.

#### **Research objective:**

The primary objective of this study is to examine various facets of artificial intelligence and demonstrate the need for marketers to adopt it as a marketing strategy for the promotion of their products and services.

#### **Artificial Intelligence, Machine Learning and Deep Learning:**

Artificial intelligence is a subfield of computer science concerned with the development of machines that can think and behave like humans. The Turing test, suggested by English mathematician Alan M. Turing in 1950, was a test that determined the intelligence of computers and was used to determine whether a computer could perform cognitive tasks at human levels.

Machine learning is a subset of artificial intelligence that enables machines to learn and improve automatically through experience. For this purpose, specialised systems are developed, and no explicit programming is required to add new definitions to the database.

Deep learning is a subset of machine learning that consists of extremely large neural networks and a vast collection of algorithms that can simulate human intelligence. The return of Google's direct answer is enabled by machine learning, while the return of the "people also ask" section is enabled by deep learning. Google is continually learning and emulating human intelligence without requiring humans to input all the answers into its massive database.

#### **How Artificial Intelligence works? :**

AI is currently utilised extensively in the digital marketing industry. AI has revolutionised the digital realm, from Google's Rank Brain and Voice search to Amazon's personalised recommendations. AI comprehends and analyses data and information more thoroughly. In identifying market trends, AI is surpassing humans. Marketers and brands are utilising Machine Learning and Artificial Intelligence to save resources and time.

#### **MARKETING STRATEGIES IN DIGITAL ERA:**

As a result of the availability of assistive technologies in the current era, many businesses are expanding at a rapid rate. Social media is the most popular application of technology in marketing. Social media has been a vital asset in the evolution of marketing and is essential for business expansion. Not only because we live in the digital age, but also because it's simple. With all of these new technologies, there are new marketing strategies available to business owners to promote their products. Several of them are discussed in the following section.

**Content Marketing** – The crucial role that content marketing plays in social media, multimedia, and mobile search has made it a prominent emphasis for many brands in recent years. Many businesses are still unaware of the significance of trends and how content

marketing underpins nearly all forms of digital advertising. Actually, spreading brand awareness is crucial.

- **Mobile Marketing** – Many individuals now use smartphones and tablets because they are convenient and time-efficient because they can take them wherever and use them whenever they want. The need for marketing material on mobile platforms is driven by the steadily rising number of people using smartphones and tablets. Businesses should redesign their websites to make them mobile device responsive.
- **Integrated digital marketing** – Integrated marketing is essential for ensuring that all marketing messages and communication tactics are united and customer-centric. For instance, Google created Google+ for a variety of purposes, one of which is to detect social signals and patterns.
- **Continuous Marketing** – Actively and persistently reminding the customer about the product is currently one of the most prevalent marketing methods. However, it is equally vital to promote the product offline in a balanced manner.
- **Personalized Marketing** – Due to media saturation, the marketing strategy utilising traditional media such as television becomes less effective. Personalized marketing is a new marketing concept that has recently emerged. Utilizing computer software to read and compose certain messages. The computer will analyse client behaviour and deliver relevant information.
- **Visual Marketing** – Instagram, Pinterest, Slideshare, and many other platforms can be utilized for this strategy. The ability to embed a marketing message and signal in an object or image is required. This new marketing trend is being used to increase the participation of digital marketing.

### **Ways to pump up digital marketing efforts using AI:**

#### **1. Propensity modelling and Predictive analytics to forecast customer behaviour:**

Propensity models are statistical scorecards designed to identify prospects with a higher likelihood of responding to an offer. It links consumer attributes with expected behaviour. In this step, the target audience and campaign objectives are specified, and the software then proposes tactics for achieving those objectives.

Predictive analytics enables marketers to extract information from data and use it to forecast purchasing trends and patterns of user behaviour. This programme examines vast volumes of data and aids in identifying the most influential insights. It operates using the following steps:

- Determining the objectives and examining the extracted data to identify patterns or models that meet our requirements.
- creation and validation of models. In this phase, data mining is employed to refine and choose a final model. The models are validated against the specified objectives.
  - The use of the model results in business decisions, and the models are continuously refined to produce better outcomes.

#### **2. Accelerated Mobile Pages to reduce load time:**

An open source project called Accelerated Mobile Pages enables content creators to develop mobile-friendly material just once and have it quickly load on all devices. In order to significantly improve the speed of the mobile web, such as reducing page load times to improve user experience, Google announced AMP web pages, which are a lighter version of the

conventional web pages. The likelihood of AMP pages appearing in Google's top three search results increases.

### **Using AI-powered chatbots to improve user experience:**

The majority of organisations are already aware of and utilising live chatbots, or AI platforms that allow for instant messaging-style communication. This distinguishes our website from others and makes it special, valuable, or entertaining.

### **Advantages in adapting Artificial Intelligence systems:**

#### **To customers:**

- AI systems can offer 24-7 customer support.
- Search sessions become simpler as a result of AI's ease of user behaviour tracking and prediction of future web activity and decisions, which improves keyword selection and even promotes the usage of semantic keywords.
- They don't need to repeat themselves after every interaction because they can save client data.
- They are amiable and always show patience and courtesy to customers.
- The waiting time is eliminated since they can handle multiple consumer requests at once.

#### **To Marketers:**

1. AI is the foundation of digital assistance. Digital marketers may significantly improve the effectiveness and return on investment of their campaigns by using big data insights.
2. Requires little manual labour and allows for fewer mistakes.
3. It makes sure the proper message is sent via the preferred channel to the right person at the appropriate time.
4. It improves the number of potential customers and enhances the company's brand image, increasing sales of products and services.
5. To increase sales, customized adverts might be made for the users.
6. They have the ability to monitor consumer spending habits, which enables the company to improve its current marketing plan and boost sales.
7. It serves as a useful method for developing a deep and pertinent relationship with customers.

### **Risks and Limitations in Artificial Intelligence Marketing:**

1. The sole constraint on AI is the availability of data.
2. While repetitive jobs can readily be transferred to AI systems, duties that require human involvement will continue to fall on individuals.
3. Like any new technology, there may be a considerable expense for both purchase and upkeep. Before implementing an AI system, our organisation needs to carefully assess the return on investment.
4. Putting AI systems into place takes time.
5. Since algorithms cannot be created by computers alone, they may be incorrect.
6. Customer privacy is not taken into account.

### **Necessity of adapting AI as a marketing strategy:**

An internet business will be successful if its marketing approach entails the appropriate judgements. To establish a successful marketing plan, it is vital to stay abreast of new social trends and maintain client interaction. Thus, the strength of artificial intelligence systems in digital marketing techniques enables a marketer to successfully promote his products or services and advance his business operations.

**Conclusion:**

We must establish one-on-one relationships with consumers. This is the current imperative; it is what will ensure our survival in the new world. Marketing is fundamentally concerned with the mind and heart. It concerns intellect and emotion. In addition to providing functional benefits, we must also occupy the emotional space in the consumers' minds. The manner in which we interact with consumers has altered marketing. It is constantly changing, and this is where the major shift has occurred. Artificial intelligence and machine learning are transforming the marketing industry dramatically. It creates new storytelling and marketing opportunities. It will alter how individuals interact with data, technology, brands, and services. Thus, marketers must incorporate artificial intelligence systems into their marketing strategies to be successful in the digital marketing era of today. It saves time and money for marketers, customers, and prospects, and it engages customers' thoughts without human intervention.

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# ஜெயராஜ் அன்னபாக்கியம் மகளிர் தன்னாட்சிக் கல்லூரி

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இணைந்து நடத்திய

பன்னாட்டுக் கருத்தரங்கம்

## சான்றிதழ்

திரு. சி. சதாசிவம்.....

கலைகள் "சுவந்தியங்கியில் சுவந்தியங்கை" எனும் பொருண்மையில் 19.12.2022 அன்று நடைபெற்ற தலைப்பு

புனைபெயர் கருத்தரங்கில் பங்கேற்று, விதைத்தவரையும், விதைகளும், புதினத்தில் வெளியிடப்பட்டன

என்று தலைப்பில் அழகாகக் குறை வாகித்தான் என்று சான்றளிக்கப்படுகிறது.

மா. சுவந்தியங்கை  
கலைகள் தலைப்பு  
பெரியகுளம்

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கலைகள் தலைப்பு  
பெரியகுளம்

# இராஜபாளையம் இராஜுக்கள் கல்லூரி

(இருபாலர் மற்றும் மொழி வழிச் சிறுபான்மையினர் கல்லூரி, மதுரை காமராசர் பல்கலைக் கழக இணைவு பெற்றது, தேசியத்தர மறுமதிப்பீட்டின் B++ தகுதி (2.93புள்ளிகள்) பெற்றது)



இராஜபாளையம்.

தமிழ்த்துறை (சுயநிதி)

பன்னாட்டுக் கருத்தரங்கம்

தமிழ் ஆளுமைகளும் படைப்புகளும்

சான்றிதழ்



முனைவர் சூ. அருண்பாண்டியன்

அவர்கள்

இராஜபாளையம் இராஜுக்கள் கல்லூரி, தமிழ்த்துறையின் சார்பில் 24.02.2023 அன்று “தமிழ் ஆளுமைகளும் படைப்புகளும்” என்னும் பொருண்மையில் நடைபெற்ற பன்னாட்டுக் கருத்தரங்கில் கலந்துகொண்டு தமிழ் ஆளுமை ஆளுமையும் படைப்பும்

என்ற தலைப்பில் ஆய்வுக் கட்டுரை வழங்கினார் என்று சான்றளிக்கப் பெறுகின்றது.

துறைத்தலைவர் (சுயநிதி)

துணை முதல்வர்

முதல்வர்



# தமிழ் ஆளுமைகளும் படைப்புகளும்

பொன்விழாவினை முன்னிட்டு நடைபெற்ற  
பன்னாட்டுக் கருத்தரங்கில்  
வாசிக்கப் பெற்ற கட்டுரைகளின் தொகுப்பு

தொகுதி இரண்டு



தமிழ்த் துறை (சுய நிதி)  
இராஜபாளையம் இராஜீக்கள் கல்லூரி  
இராஜபாளையம்

## உள்ளடக்கம்

### நவீன இலக்கியம்

1. தமிழ் ஒளியின் ஆளுமையும் படைப்பும்  
முனைவர் து. அருண்பாண்டியன் 10
2. கி.ராஜநாராயணன் 15  
ரா. அழகுராஜ்
3. கவிஞர் சக்தி ஜோதி பார்வையில் சமூகம் 25  
முனைவர் வி. அன்னபாக்கியம்
4. பாரதியின் கடல் பயணம் 34  
பா.கண்ணன்
5. சாத்தூர் சேகரர் வாழ்வும் வரலாறும் 42  
முனைவர் நா.கவிதா
6. எஸ்.ரா படைப்பில் மகளிர் நிலை 53  
திருமதி.மு.கற்பகச் செல்வி
7. பாரதியின் பார்வையில் சுதந்திரம் 61  
முனைவர். ப. காந்திமதி
8. நா.காமராசுவின் படைப்பாளுமையும் கவிதையாக்கமும் - 65  
ஒரு மொழியியல் ஆய்வு  
முனைவர் இரா.கீதா
9. கலைஞரின் சங்கத்தமிழ் மொழிநடை 71  
பா. கௌசிகா
10. அணையாத சுடரேற்றுவேன் நூல் மதிப்புரை 77  
திருமதி சு.சத்யா
11. இடக்கை - நூல் விமர்சனம் 83  
முனைவர் செ.சாந்தி
12. இயற்கையின் நேசர் கவிப்பேரரசர் வைரமுத்து 91  
முனைவர் செ.சிதம்பரநாதன்
13. தமிழாற்றுப்படையில் அறக்கருத்துக்கள் 96  
ரா.செல்வராணி

## தமிழ் ஒளியின் ஆளுமையும் படைப்பும்

முனைவர் து.அருண்பாண்டியன்

உதவிப்பேராசிரியர்,

தமிழ்த்துறை, துவாரகதாஸ் கோவர்தன்தாஸ் வைணவக் கல்லூரி,  
அரும்பாக்கம், சென்னை - 106.

### அறிமுகம்

கம்ப்யூனிசத்தைத் தம் படைப்புகளுள் பெரிதும் பாடியவர் தமிழ்ஒளி ஆவார். உலகளவில் இவரது கம்ப்யூனிசப் பார்வை பரந்து விரிந்திருந்ததை இவரது கவிதைகள் வாயிலாக அறியலாம். இந்தியாவில் இருந்த தொழிலாளர் அவல நிலையை தம் கவிதைகளில் குறிப்பிட்டு தொழிலாளர் முன்னேற்றத்தை உருவாக்கப் பாடுபட்டவர். கம்ப்யூனிசத்தின் மாபெரும் ஆளுமையான கவிஞரை மக்கள் அறிந்து கொள்ளவில்லை. மகாகவி பாரதியார் தாம் வாழும் காலத்தே தம்மவரால் புறக்கணிக்கப்பட்டது போல் கம்ப்யூனிச தமிழ் ஆளுமையை இந்திய கம்ப்யூனிச அரசியல் புறக்கணித்துவிட்டது. அதன் வாயிலாக தமிழகத்தில் கம்ப்யூனிசம் வலுவான நிலை பெறவில்லை. இத்தகையை மறக்கப்படும் மறைக்கப்படும் தமிழ் ஒளியின் ஆளுமையையும் படைப்பையும் இவ்வாய்வின் மூலம் அறியலாம்.

### தமிழ் ஒளியின் வாழ்வும் படைப்பும்

21.09.1924 இல் குறிஞ்சிப்பாடியை அடுத்த ஆடூர் கிராமத்தில் பொ.சின்னையா செங்கேணியம்மாள் தம்பதியருக்கு மகனாகப் பிறந்தவராவார். இயற்பெயர் விஜயரங்கன், செல்லப் பெயர் பட்டராசு. பாவேந்தரின் கவிதை வாக்கியமான 'தமிழ்ஒளி' என்ற பதத்தை தம் பெயராக ஏற்றுக்கொண்டார். தமிழ் ஒளியின் தந்தையின் பூர்வீகம் புதுவை என்பதால் புதுவை மண்ணின் மைந்தர். தொடக்கக் கல்வியை புதுவை முத்தியாலுப் பேட்டையிலும் உயர் கல்வியை கல்வே கலா சாலையிலும் பயின்றார். பாவேந்தரின் மகன் மன்னர் மன்னனின் வாயிலாக பாவேந்தரின் அரவணைப்பைப் பெற்றார். சிறிதுகாலம் அவருக்கு உதவியாளராகவும் விளங்கினார்.

இராஜபாளையம் இராஜலுக்கள் கல்லூரியின்  
பொன்விழாவினைக்  
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வாசிக்கப் பெற்ற கட்டுரைகளின் தொகுப்பு

**தமிழ் ஆளுமைகளும் படைப்புகளும்**  
தொகுப்பு 2

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பதிப்பாசிரியர்கள்

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வெளியீடு:

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**க**மிழநாட்டிற்கு வெளியிலிருந்து வந்த பாரதக் கதையின் அடிப்படையில் உருவாகிய திரௌபதி வழிபாடு பெண் தெய்வ வழிபாடாகவே விளங்குகிறது. இதற்கான அடிப்படையையும் திரௌபதி வழிபாடு எவ்வளவான வழிபாடாக விளங்குகிறது? இந்த வழிபாட்டைப் பின்பற்றும் மக்கள் யாவர்? இதில் பின்பற்றப்படும் சடங்குகள் யாவை? புதிதாகத் தோன்றிய இந்த வழிபாட்டிற்கான சடங்குகள் மாதிரிகள் எந்த வழிபாட்டிலிருந்து உள்வாங்கப்பட்டன? முதலான வினாக்களை எழுப்பிக்கொண்டு விளக்குவது இந்த ஆய்வின் நோக்கம்.

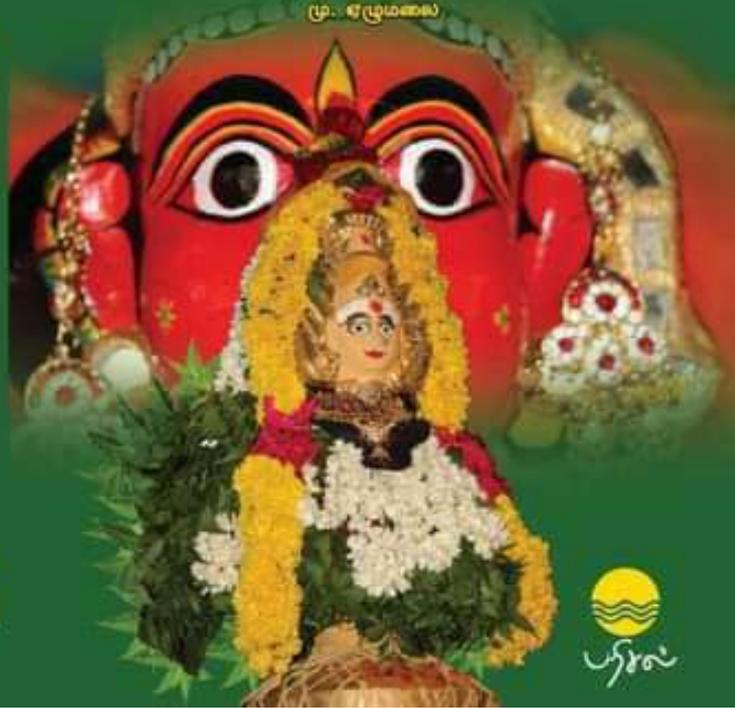


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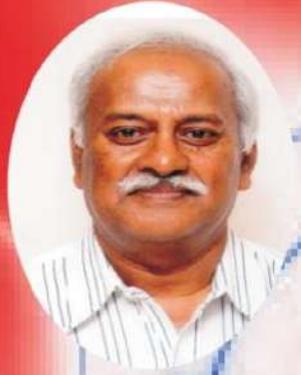
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# தமிழ்ப் பண்பாட்டில் **திரௌபதி** வழிபாடு

இரா. சீனிவாசன்  
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**பேராசிரியர் சா. வளவனாரின்  
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சென்னை-600 030.

முனைவர் வெ. இராமராஜ்  
உதவிப் பேராசிரியர், தமிழ்த்துறை,  
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அரும்பாக்கம், சென்னை-600 106.

**பேராசிரியர் சா. வளவனாரின்  
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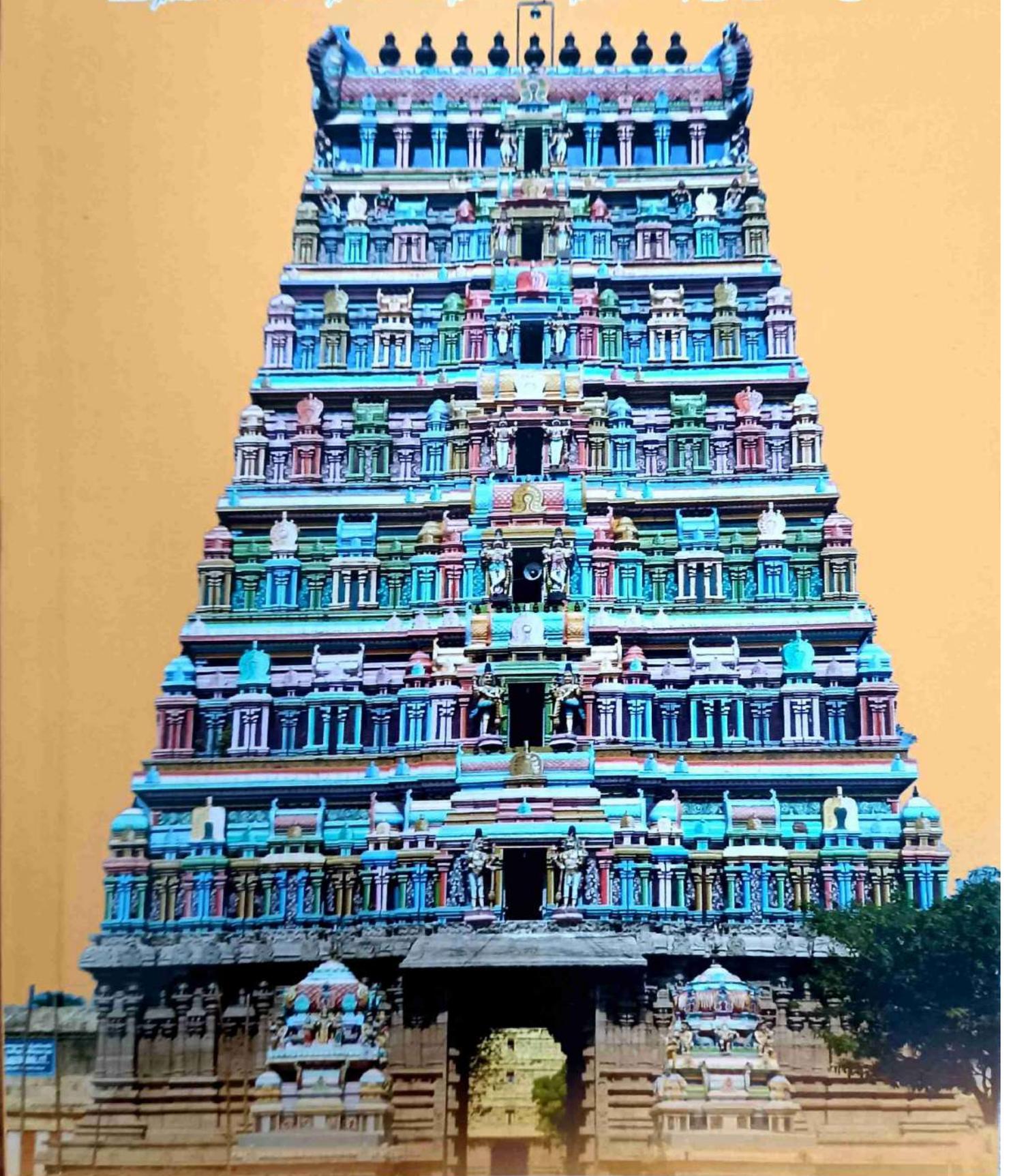
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## பொருளடக்கம்

1. திருவள்ளுவரின் வாழ்வியல் சிந்தனைகள்  
- பேராசிரியர் முனைவர் க.ப. அறவாணன் 7
2. வெள்ளிவிழா சொற்பொழிவுகள்  
- முனைவர் அ.மு. பரமசிவானந்தம் 9
3. இலக்கண விருந்து  
- பேராசிரியர் முனைவர் வித்துவான்  
வீ. சேதுராமலிங்கம் 11
4. மொழிப் பயிற்சி  
- முனைவர் பெ. அர்த்தநாரீசுவரன் 12
5. அ.மு.ப.வின் சிந்தனைகள் - ஆய்வுரை  
- முனைவர் மு.அ. மாணிக்கவேலு 15
6. பெண் படைப்பாளர் தம் படைப்புகள்  
- முனைவர் கி. மைதிலிவளவன் 18
7. இறையியல் சிந்தனைகள்  
- Dr. பத்மஜா 22
8. புதினங்கள் காட்டும் சமூக மதிப்புகள் -  
திறனாய்வு  
- முனைவர் மு. சற்குணவதி 23
9. பேராசிரியர் சா. வளவனாரின் சமய நூல்கள் -  
திறனாய்வு  
- முனைவர் வெ. இராம்ராஜ் 26
10. என்றும் நினைவில்  
- முனைவர் வே. திருநாவுக்கரசு 35
11. பேராசிரியர் வளவனாரின்  
“ஆனந்தரங்கம் பிள்ளை நாட்குறிப்பு - ஆய்வு”  
- முனைவர் ம.ஏ. கிருட்டினகுமார் 41

12. பேராசிரியர் சா.வளவன் பார்வையில் மு.வ. - முனைவர் ம.ஏ. கிருட்டினகுமார்	44	25. பயணக் கட்டுரைகள் - பேராசிரியர் சா.வளவன் - திரு. க. ஜெயபால்	116
13. பேராசிரியர் முனைவர் சா. வளவன் அவர்களின் 'சிந்தனை வளம்' நூலாய்வு நம்பிக்கை ஊட்டும் சிந்தனை வளம்! - முனைவர் பா. சுதிரவன்	48	26. வளவனார் 13 நூல்கள் - ஓர் ஆய்வு - முனைவர் வெ. இராம்ராஜ்	120
14. தமிழ்க் கலையியல் - முனைவர் சு. உமா மகேஸ்வரி	51	27. தமிழ்க் கற்றல் கற்பித்தல் - நூல் விமர்சனம் - திரு. ஏ. விஸ்வநாதன்	133
15. அம்மாவும் ஆறுமுகமும் - சுதை - முனைவர் கு. விஜயலட்சுமி	58	28. நாட்டுப்புறவியல் ஆய்வுகள் - திருமதி பு.சி. சுமதி	136
16. முனைவர் சா. வளவனின் பார்வையில் அறிஞர் அண்ணா - திரு. மா. விநாயகம்	63	29. அறம் வளர்த்த அண்ணல் - திருமதி த. சுசீலா	139
17. பேராசிரியர் சா. வளவனின் தமிழ்ப்பணி - திரு. சீ. அருண்குமார் & முனைவர் தி. நெல்லையப்பன்	68	30. பெண்களை முன்னிறுத்தும் பேராசிரியப் பெருந்தகை வளவனார் - முனைவர் ம.ஏ. கிருட்டினகுமார்	141
18. நாட்டுப்புறவியல் கட்டுரைகள் - திருமதி த. சுசீலா	77	31. தமிழ் கற்றல் கற்பித்தல் - திருமதி சுசீலா	143
19. இருந்தமிழ் - முனைவர் கி. மைதிலிவளவன்	85	32. பேரா. தெ.பொ.மீயின் மொழியியற் கட்டுரைகள் - முனைவர் வாணி அறிவாளன்	144
20. பிள்ளைத்தமிழின் தோற்றமும் வளர்ச்சியும் - முனைவர் கு. விஜயலட்சுமி	88	33. ஓ! தமிழே உனக்கு நன்றி! - முனைவர் வீ. ஆதிபராசக்தி	147
21. இலக்கியப்போக்கு - திருமதி அருணாம்பிகா	101	34. திருக்குறள் திறனாய்வு - முனைவர் வீ. ஆதிபராசக்தி	150
22. அகவுரை - முனைவர் கு. காமராஜ்	103	35. அயல்நாட்டுப் பயணங்கள் பத்ரி நாராயணா வோல்டு டிராவல்ஸ் - திரு. என்.எஸ். சுனில்குமார்	152
23. சிற்றிலக்கிய ஆய்வுகள் - முனைவர் வீ. ஆதிபராசக்தி	109	36. பொதுமொழியியல் - பொதுப்பார்வை - டாக்டர் ஆனந்த நாயகி	153
24. இயக்கமாகிய இயற்கைக்கும், அனைத்துமாகிய ஆன்மாவிற்கும் - என் வணக்கங்கள்! - திருமதி இரா. சுவர்ணா	112		

தருக்தரகோசமங்கை  
மங்கலேசுவர் பள்ளைத்தமிழ்



பதிப்பாசிரியர்  
முனைவர் கு.வடிவேல்முருகன்

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## வொருளடக்கம்

பக்கம்

1. அணிந்துரை . . . . . 5
2. பதிப்புரை . . . . . 8
3. திருஉத்தரகோசமங்கை கோயில் . . . . . 11
4. திருஉத்தரகோசமங்கை மங்களேசுவரி  
பிள்ளைத்தமிழ் . . . . . 29
5. பிள்ளைத்தமிழ் நூல்கள் . . . . . 100
6. உத்தரகோசமங்கை கல்விவட்டுகள் . . . . . 104

### திருஉத்தரகோசமங்கை கோயில்

திருஉத்தரகோசமங்கை கோயில் தென்தமிழ்நாட்டில் இராமநாதபுரம் மாவட்டத்தில் அமைந்துள்ளது. இங்கு அருள்மிகு மங்களேசுவரி உடனுறை மங்களநாதர் வீற்றிருந்து அருள்பாலிக்கிறார். மதுரை - இராமநாதபுரம் தேசிய நெடுஞ்சாலையில் பரமக்குடி, சத்திரக்குடி முதலியவற்றைத் தாண்டி, இராமநாதபுரத்திற்கு 10 கி.மீ. முன்பாகவே (உத்தரகோசமங்கை விளக்கு) வலப்புறமாக பிரிந்து செல்லும் தூத்துக்குடி - திருச்செந்தூர் சாலையில் 7- கி.மீட்டர் சென்றால் இக்கோயிலை அடையலாம்.

திருஉத்தரகோசமங்கையில் அருள்பாலிக்கும் மூலவர் மங்களேஸ்வரர் சுயம்பு லிங்கமாகத் தோன்றியவராவார். உலகில் முதன்முதலில் தோன்றிய சைவத் தலமாக உத்தரகோச மங்கை கருதப்படுகின்றது. எனவேதான் உத்தரகோசமங்கையைச் சிவபெருமானின் சொந்த ஊர் என்றும் பாண்டிய நாட்டைச் சிவனது பதியாகவும் மாணிக்கவாசகர் பாடுகின்றார்.

இறைவனுக்கு மங்களேஸ்வரர், மங்களநாதர், காட்சி கொடுத்த நாயகர், பிரளயாகேசுவரர் என்ற பெயர்களும் இருக்கின்றன. இறைவிக்கு மங்களேஸ்வரி, மங்களாம்பிகை, மங்களநாயகி, சுந்தரநாயகி ஆகிய பெயர்களும் வழங்கப்படுகிறது.

#### ஊர் - பெயர்க்காரணம்

உத்தரகோசமங்கையில்தான் ஈசன் பிரணவத்தின் பொருளை உமையன்னைக்கு உபதேசம் செய்தார். உத்திரம் எனில் உபதேசம். கோசம் எனில் இரகசியம். மங்கைக்கு இரகசியமாய் உபதேசித்த இடமானதால் உத்திரகோசமங்கை எனப்பெயர் பெற்றது. இது பின்னாளில் உத்தரகோசமங்கை என மருவியது.

ஆதிகாலத்தில் இத்தலம் சிவபுரம் தெட்சிண கைலாயம், சதுர்வேதி மங்கலம், பத்ரிகா ஷேத்திரம், பிரம்மபுரம், வியாக்ரபுரம், மங்களபுரி, பதரிசயனசத்திரம், ஆதிசிதம்பரம்

ஜெய் ஸ்ரீ கிருஷ்ணா Jai Shri Krishna

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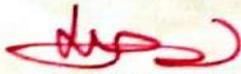
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நாள் : 21.04.2022 - வியாழக்கிழமை

**சான்றிதழ் - CERTIFICATE**

துவாரகதாஸ் கோவர்தன்தாஸ் வைணவக் கல்லூரித் தமிழ்த்துறை மற்றும் தமிழ் இலக்கியத்துறையால் 21.04.2022 ஆம் நாளன்று நடத்தப் பெற்ற பன்னாட்டு நவீனத் தமிழ்இலக்கிய மாநாட்டில் முனைவர் ம.பிரபு, உதவிப்பேராசிரியர், தமிழ்த்துறை, துவாரகாதாஸ் கோவர்தன்தாஸ் வைணவக் கல்லூரி (தன்னாட்சி), அரும்பாக்கம், சென்னை - 600106. அவர்கள் கலந்து கொண்டு விகைத்தவனும் விகைகளும் புதினம் உணர்த்தும் வாழ்வியல் எனும் தலைப்பில் கட்டுரை அளித்தார். இக்கட்டுரை பிரணவ் தமிழியல் ஆய்விதழின் சிறப்பிதழிலும் மின்னிதழிலும் (Peer Reviewed Journal - ISSN : 2582 - 9599) பிரசுரிக்கப்பட்டுள்ளது எனச் சான்றளிக்கப்படுகிறது.

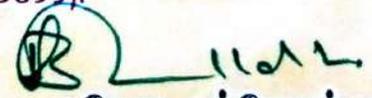
This is to certify Dr. M. PRABHU, Assistant professor, Department of Tamil, Dwaraka Doss Goverdhan Doss Vaishnav College (Autonomous), Arumbakkam, Chennai - 600 106 has participated in International Tamil Modern Tamil Literary Conference on April 21, 2022 organised by the Department of Tamil and Tamil Literature of Dwaraka doss goverdhan doss vaishnav college, and presented a paper entitled VIDHAITTHAVANUM VIDHAIKALUM PUTHINAM UNARTHUM VAZHVIYAL. This article is published in both the special issue of Pranav Tamil Research journal and pranav e-journal (Peer Reviewed Journal - ISSN : 2582 - 9599).



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விளையாட

வேண்டிய குழந்தைகளுக்கு

வாயிலிருந்து வார்த்தை

வருவதற்குள்

காதுகளை நோக்கி

கை

செல்லும் காலம்!

வீட்டில்

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யாரும் யாருடனும்

பேசுவதில்லை

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வருகின்ற மறதி

வெளியே

செல்லும்போது

செல்போனை

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வருவதில்லை

அப்படி ஒரு

படிப்பினையை

எப்படிப் பெற்றேன்

செல்போனிடமிருந்து?

உலகம்

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மறுக்க முடியாத

உண்மை!

உன்னை மறந்து

நோத்தைக் கழித்து

சிந்தனையை அழித்து

நிற்கும் நீ

யாருடைய கையில்?

நூலகம் மறந்தோம்

நாளிதழ் மறந்தோம்

கடிதம் மறந்தோம்

வாழ்த்து அட்டைகள்

மறந்தோம்

உணர்வுகளை இழந்தோம்

இயல்பாகவே மொழியை

மறக்கிறோம்

செல்போன் தந்த

வாயா? சாயமா?

உண்மையாக

இருந்த

உறவுகளும்

உணர்வுகளும்

காட்சிநிம்பக்

கதைகளாகிய போமோ?

ஊட்டல் மறந்தோம்

கழித்தல் மறந்தோம்

பெருக்கல் வறத்தையும்

சேர்த்தே மறந்தோம்

மறக்காத செல்போன்

அருகிலிருப்பினால்!

வேகம் கொடுத்தது

விரைகம் கொடுத்தது

சந்தோஷம் கொடுத்தது

சந்திப்பு கொடுத்தது

அறிவு கொடுத்தது

நேடல் கொடுத்தது

வழிகாட்டியது

விளக்கேற்றியது

என

எல்லாம் கொடுத்து

என்னையே!

என் லிட்டிரும்பு

எடுத்துக்கொண்டது

செல்போன்!

வங்கிக் கணக்கில்

பணம் இருக்கிறதோ

இல்லையோ

நீ இருக்கிறாய்!

வீட்டில் அரிசி

இருக்கிறதோ இல்லையோ

சேஷன் அட்டையில்

நீ இருப்பாய்!

ஆதர்ச அட்டையில்

நான்

பெறிகிறேனோ

இல்லையோ

நீ

பெறிகின்றாய்!

அடையாள அட்டையில்

காட்டிக் கொடுக்கும்

ஊட்டாளியாய்

இருக்கிறாய்

அப்படி என்ன

அக்கறை

93. வயலினை! உன்னை யார் அழிவார்? ..... 180  
பா. சசிகலா
94. செல்போன் குழந்தாயம் ..... 182  
முனைவர் கு. கலைவாணன்
95. தமிழ் மது பருகு ..... 187  
முனைவர் து. அருண்பாண்டியன்
96. 1. பேரண்டப் பறவை, 2. உளர்க்கதைகள்,  
3. சமீக்கை விளக்கு (சீக்னல்) ..... 189  
அ. வீரமணி

**நூல் விவரம்**  
தலைப்பு : கவியுலா  
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# உலகம்



கோவை  
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சீகூதா தேநீ  
வெள்ளா ரதுநீ  
விஜய் சேபோ  
காநே  
கூமிலுமா  
உம  
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சமுதாயத்தின்மீது  
உனக்கு மட்டும்?  
தண்டனை  
கைதிகளுக்கு  
மட்டுமே  
அடையாள எண்கள்  
வழங்கப்பட்ட  
சமூகத்தில்  
சமூகத்தையே  
பத்து இலக்க  
எண்கொண்ட  
கைதியாய்  
மாற்றிவிட்டாயே!  
நீதான்  
சூப்பர் டீப்பர்  
போலிஸ்காரன்!.

கவிபுனைவு - செல்போன் உருவாக்க  
சமுதாயத்தில் என்னைத் தேடியபோது.

முனைவர் கு. கலைவாணன்

உதவிப் பேராசிரியர்

தமிழ்த்துறை

## சைவ அச்சுப்பண்பாட்டு வக்பாகம் : தமிழகமும் இலங்கையும்

முனைவர் கு. கலைவாணன்

இன்றைய நடைமுறை உலகினில் தொழில்நுட்ப உதவியின்றி ஒருவர் வாழ்ந்துவிட முடியுமா? என்றால் இல்லை என்றுதான் கூறமுடியும். பொருள் படைத்தவர் பொருள் இல்லாதவர் என யாராக இருந்தாலும் ஏதேனும் ஒரு வகையில் தொழில் நுட்பத்துடன் தொடர்பு கொண்டிருப்பார். நாம் விரும்பியோ விரும்பாமலோ தொழில் நுட்பத்தோடு இணைந்து வாழவேண்டிய தேவையுள்ளது. இதுபோன்ற ஒரு தன்மை அச்ச ஊடகம் பரவலான காலகட்டத்தில் நிலவியது. அப்போது அச்ச ஊடகம் சமூகத்தில் எத்தகைய மாற்றங்களை ஏற்படுத்தியது என்பதை கவனத்தில் கொள்வது அறிவுடைச் சமூகத்தின் கடமையாகிறது. அச்ச ஊடகமானது நம்முடைய பழைய கல்விமரபை நவீன ஊடகத்தின் தன்மைக்கேற்ப மாற்றியது. அதன்வழியே எழுத்து, வாசிப்பு, புத்தகம், கல்வி கற்றல், கற்பித்தல், அன்றாட வாழ்வியல் என அனைத்துத் துறைகளிலும் அச்ச ஊடகம் பயன்படுத்தப்பட்டது. குறிப்பாகச் சைவ சமயத்தில் எத்தகைய மாற்றத்தை ஏற்படுத்தியது என்பது பற்றிய உரையாடலை நோக்கமாகக் கொண்டு இக்கட்டுரை அமைகின்றது.

சைவ வாழ்வியல் நெறிமுறையில் அச்ச ஊடக வருகைக்கு முன்பான நமது பழக்க வழக்கங்கள் அனைத்தும் அச்ச வடிவம் பெற்று சைவ மரபில் மிகப்பெரிய மாற்றங்களை ஏற்படுத்தின. இதற்கு ஆங்கிலேயர்களின் ஆட்சிமுறையும் கிறித்தவர் களின் சமயப் பரப்பலும் முக்கிய காரணங்களாயின. இது இங்குள்ள சைவர்களையும் ஊடகப் பண்பாட்டை நோக்கிச் செயல்பட வைத்தது. இதன் விளைவாகச் சைவ சமயத்தைச் சார்ந்தவர்கள் பல்வேறு முறைமைகளில் அச்ச ஊடகத்தின் வழியாகச் சைவ அச்ச நூல்களை வெளியிட்டுக் கொண்டே இருந்தனர். 1800க்கும் 1950க்கும் இடைப்பட்ட காலத்தில் தோன்றிய சைவ அச்ச நூல்களைத் தொகுத்து நோக்குவதின் ஊடாக அச்ச ஊடக செயல்பாட்டின் முக்கியத்துவத்தை உணர முடியும். இதில் தமிழகம் மற்றும் இலங்கையில் சைவம் சார்ந்து செயல்பட்டவர்கள் உருவாக்கிய சைவ அச்ச

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அக்க நூற்களைவிட இயிரதீபைய இறைத்தன்மையுடன் பார்க்கின்ற பார்நிலையும் உருவாகிறது.

குறைந்த விலை மற்றும் சைவ விழாக்களை நிறைவுக்கும் வகையில் நூல்கள் அச்சுக்கம் பெற்றுள்ளன. கடவுளுக்குப் புகழை செய்தல், வறுப்பெடுதல் என்பவற்றோடு நின்றுவிடாமல் பிறர்வலத்தில் அதை நிறைவுக்கும் வகையிலும் தொடர்ச்சியாகப் பின்பற்றுவதற்கான கையேடுகளும் ஆவணமாகவும் தன்மையிலும் அபிவிருதிக்கும் முக்கியத்துவம் பெறுகின்றன. இதில் சைவ விழாக்களோடு அக்கப்பிரதீபம் இரண்டறக் கலந்து விடுகின்றன. அறிவும் குறைந்த விலைக்குச் சைவ அக்க நூல்களை அனைவரும் பெற்றுப் படிக்க வேண்டும் என்பதை ஒரு இயக்கமாகவே நிகழ்த்தியுள்ளனர். இதனை 1931 ஆம் ஆண்டு சைவ சித்தாந்த சமூகத்தின் மூலம் வெளிவந்த திருஞானசம்பந்தர் தேவாரப்பதிப்பின் (1931) வழி அறிய முடிகின்றது. அதில் மிகக் குறைந்த விலைக்குத் தரவேண்டும் என்பதே இவ்வெளியீட்டின் நோக்கமாகையால் எவரும் பிரதி ஒன்றுக்கு ஒரு ரூபாவுக்கு மேல் கொடுத்து வாங்கவும் பெற்று விற்கவும் கூடாது (மேலது, ப. 54) என்று குறிப்பிடப்பட்டிருந்து அதன் முக்கியத்துவத்தையும் வெளியிட்டவர்களின் நோக்கத்தையும் அறிய முடிகின்றது.

பன்னிரு திருமுறைகளைச் சார்ந்த பன்னிரு நோக்கிலான சைவப் பிரதிகள் எத்தனையு விளைவுகளைச் சமூகத்திற்குள் நிகழ்த்திச் சென்றுள்ளன என்பதைப் பின்வருமாறு தொகுத்துக் கொள்ளலாம்.

- பன்னிரு திருமுறைகளைச் சேடறக் கற்புத்தற்கு உதவுகிறது.

- அசாதிவியல், இலக்கணவியல், பாட ஆய்வியல் போன்ற பிற துறைகளைப் பொருத்தப் பாட்பதனாலும் மேற்கண்ட துறைகளைப் புரிந்து கொள்வதற்கும் வளப்படுத்துவதற்கும் ஆதார நூல்களாகச் சைவ இலக்கியங்கள் திகழ்கின்றன.

- பூ, பழம், வெற்றிலை பாக்கோடு ஓலைக்கவியகளிநுதல் இடத்தில் சைவ அக்கப்பிரதிகள் இடம்பெற்றுள்ளன. இதில் அபிவிருதிபானது சைவர்களின் வாழ்வியல் மற்றும் பண்பாட்டோடு இயைந்த தன்மையைப் பெறுகின்றது.

- ஆங்கிலேயர்களின் வடுகையும் அவர்களது சமயப் பிரச்சாரமும் இங்குள்ள சைவர்களைத் தங்களது சமயத்தைப் பரவலாக்கவும் நினைபுத்தரும் வேண்டியுள்ள அவசியத்தை உணர்த்தின. அதன் விளைவாகவே குறைந்த விலை மற்றும் விழாப்பதிப்பு போன்ற அக்கப்பிரதிகளின் வெளியீட்டைச் சைவம் செயல்பாடாக மாற்றினர். இது சைவ சமயப் பரவலாக்கம் மற்றும் பண்பாட்டை வளர்த்தெடுப்பதில் மிக முக்கியப் செயல்பாடாகும்.

## 2. எளிமையை நோக்கிய சைவ சித்தாந்த அச்சப்பிரதிகள்

சைவ சமயக் கருத்துகளை அறிந்தவர்கள் அதனைத் தத்துவ நோக்கிலும் அறிந்துகொள்ள வேண்டும் என்பதை நோக்கமாகக் கொண்டு உருவானவையே சித்தாந்த அச்சப்பிரதிகள். இங்கு சித்தாந்தக் கருத்துகளை எளிமை நோக்கில் கூற வேண்டிய தேவை என் ஏற்பட்டது என்ற கேள்வி தவிர்க்க இயலாது. சாந்திரங்களைக் கூற்ற சைவ சித்தாந்தவியலாளர்கள் அதன் கடினத்தன்மையை உணர்ந்து சைவ சித்தாந்தத்தை எளிமையாக்கி வெளியிட்ட வரலாற்றுத்திரை. இது குறித்து சைவ சித்தாந்த விளக்கம் (1913) என்றும் நூலில் கப்பிரமணியம் பிள்ளை "சாந்திரங்களை

புளர்த்து அவை கடினமான சூத்திரச் செய்திச் சுவைகளை இடையறாது மூக்கி இவ்வாறாக உணர்ந்து கொண்டு வளை வடிவானவச் சைவ விளக்கரைப் பத்திச் சூத்திரமும் விளக்கமும் சில நூல்களையுட்பட்டு வெளியிடவே சைவ சித்தாந்த உபநாசனம்" (மேலது, ப. 59) என்று குறிப்பிட்டுகின்றார்.

எளிமையாக்குவதற்கும் என்னும் செயல் எப்படிச் செயல்படுத்தப்பட்டது என்பதைப் பற்றி பின்வரும் கருத்துகளிலிருந்து அறியலாம்.

சைவ சித்தாந்தத்தைப் பற்றிய சொற்பொழிவுகள் நிகழ்த்தல் ஆகவே அச்சுவடிவமாகினர். அவ்வாறு உருவாக்கப்பட்ட நூல் சிவஞானபோத உபநிப்பாச பாடம் (1918). இதில் சிவஞான சித்தாந்தம் உள்ள சூத்திரங்கள் ஒவ்வொன்றையும் பல பாடங்களாக உள்நடையில் VP களாற்றியுள்ளன எழுதியுள்ளார்.

மூல நூலினைப் புரிந்துகொள்ள பொழிப்புணையும் பொழிப்புணையும் புரிந்துகொள்ள பதவுணையும் எழுதி வெளியிட்டுள்ளனர். சிவஞான சித்தியார் நூலுக்கு சிவஞான கவாமிகள் எழுதிய பொழிப்புணைக்கு கப்பிரமணிய தேசிக கவாமிகள் பதவுணர் எழுதியுள்ளார்.

- வினா வெண்பா ஆராய்ச்சி (1950) என்ற நூல் சைவசித்தாந்த வித்தகக் வீ. குமாபிள்ளை என்பவரால் உருவாக்கப்பட்டுள்ளது. அதில் வினா எழுதற்கு கேட்டல் நிகழ வேண்டும் எனவே சித்தாந்தத்தை வெளியிடுதற்கும் வெண்பா மீள் தெரிய வேண்டிய செய்தியை முதலில் கொடுத்து, இலைய விளைவை எழுதி, அதற்கு விடை கூறுவதுபோல் இந்நூல் உருவாக்கப்பட்டுள்ளது.

- சிறியவர்களுக்கும் சைவ சித்தாந்தத்தை அறிய வேண்டும் என்ற நோக்கம் 'சித்தாந்த படவிளக்க' பாலபோதம் (1930) என்றும் நூல் வெளியிடப்பட்டுள்ளது. வசனாலங்கார தீபம் (1916) என்ற நூலில் ஒவ்வொரு சிவஞானபோத சூத்திரத்திற்கும் விளக்கம் கூறி சூத்திரத்திற்கான விளக்கம் 'சூத்திர பரிஷே விளக்கங்கள்' என்ற தலைப்பில் கொடுத்து, வினாவிற்கு பக்கத்திலே நூலின் எந்தப் பக்கத்தில் விடை இருக்கிறதோ அந்தப் பக்க எண்ணும் கொடுக்கப் பட்டிருக்கும்.

- குறள் வடிவிலும் சைவ சித்தாந்தக் கருத்துடைய குறட்பாக்கள் எழுதப்பட்டுள்ளன. அட்டாங்கியோகக்குறள் வகுத்தமறவடிவம் வழி (1906) என்றும் நூலில்,

"அட்டாங்கியோக சமாதி யடைந்தோருக் கட்டமா சித்திகளுண் டால்" (மேலது, ப. 67)

மொழியொப்பு மூலமாகவும் எளிமையாக்கும் பணி நிகழ்த்துகின்றது.

இவ்வாறாக சைவ சித்தாந்தத்தை எளிமையாக்குவதற்கு அக்க கட்டகத்தின் துணைகொள்ளப் பல்வேறு முயற்சிகள் மேற்கொள்ளப்பட்டுள்ளன. அக்கப்பிரதி களிலிருந்து அறிய முடிகிறது. எளிமையாக்குதல் என்னும் செயல்பாடு அக்க கட்டகத்தைச் சார்ந்தே நிகழ்ந்துள்ளனதைத் தரவுகள் உறுதிபடுத்துகின்றன.

## 3. வாழ்வத்தை முறையிடும்படுத்தும் சைவ அச்சப்பிரதிகள்

எந்தவொன்றையும் மக்களிடம் கொண்டு சேர்க்க வடிவம் முக்கியப்பங்கு வகிக்கிறது. பொருளை மையமில்லாமல் வெறும் வடிவத்தை மட்டும் மக்களிடம் கொண்டு

அக்க நூற்களைவிட இயிரதீசய இறைத்தன்மையுடன் பரக்கின்ற பன்மீசையையும் உருவாகிறது.

குறைந்த விலை மற்றும் சைவ விழாக்களை நிறைவுக்கும் வகையில் நூல்கள் அச்சுக் கம் பெற்றுள்ளன. கடவுளுக்குப் புகழை செய்தல், வறுப்பெடுதல் என்பவற்றோடு நின்றுவிடாமல் பிறர்வலத்தில் அதை நிறைவுக்கும் வகையிலும் தொடர்ச்சியாகப் பின்பற்றுவதற்கான கையேடுகளும் ஆவணமாகவும் தன்மையிலும் அபிவிருத்தியும் இராட்டரக் கைந்து விடுகின்றன. இதில் சைவ விழாக்களோடு அக்கப்பிரதீசய இராட்டரக் கைந்து விடுகின்றன. அறிவும் குறைந்த விலைக்குச் சைவ அக்க நூல்களை அனைவரும் பெற்றுப் படிக்க வேண்டும் என்பதை ஒரு இயக்கவாகவே நிகழ்த்தியுள்ளார். இதனை 1931 ஆம் ஆண்டு சைவ சித்தாந்த சமூகத்தின் மூலம் வெளிவந்த திருஞானசம்பந்தர் தேவாரப்பதிப்பின் (1931) வழி அறிய முடிகின்றது. அதில் மிகக் குறைந்த விலைக்குத் தரவேண்டும் என்பதே இவ்வெளியீட்டின் நோக்கமாகையால் எவரும் பிரதி ஒன்றுக்கு ஒரு ரூபாவுக்கு மேல் கொடுத்து வாங்கவும் பெற்று விற்கவும் கூடாது (மேலது, ப. 54) என்று குறிப்பிடப்பட்டிருந்து அதன் முக்கியத்துவத்தையும் வெளியிட்டவர்களின் நோக்கத்தையும் அறிய முடிகின்றது.

பன்னிரு திருமுறைகளைச் சார்ந்த பன்னிரு நோக்கிலான சைவப் பிரதிகள் எத்தனையு விளைவுகளைச் சமூகத்திற்குள் நிகழ்த்திச் சென்றுள்ளன என்பதைப் பின்வருமாறு தொகுத்துக் கொள்ளலாம்.

- பன்னிரு திருமுறைகளைச் சேடறக் கற்புத்திரு உதவுகிறது.

- அசாதிவியல், இலக்கணவியல், பாட ஆய்வியல் போன்ற பிற துறைகளைப் பொருத்தப் பாட்பதனாலும் மேற்கண்ட துறைகளைப் புரிந்து கொள்வதற்கும் வளப்படுத்துவதற்கும் ஆதார நூல்களாகச் சைவ இலக்கியங்கள் திகழ்கின்றன.

- பூ, பழம், வெற்றிலை பக்கோடு ஒலைக்கவியகளிநுந்த இடத்தில் சைவ அக்கப்பிரதிகள் இடம்பெற்றுள்ளன. இதில் அபிவிருத்தியானது சைவர்களின் வாழ்வியல் மற்றும் பண்பாட்டோடு இயைந்த தன்மையைப் பெறுகின்றது.

- ஆங்கிலேயர்களின் வருகையும் அவர்களது செயல் பிரச்சாரமும் இங்குள்ள சைவர்களைத் தங்களது செயல்ததைப் பரவலாக்கவும் நிலைப்படுத்தவும் வேண்டியதன் அவசியத்தை உணர்த்தின. அதன் விளைவாகவே குறைந்த விலை மற்றும் விழாப்பதிப்பு போன்ற அக்கப்பிரதிகளின் வெளியீட்டைச் சைவம் செயல்பாடாக மாற்றினர். இது சைவ சமயப் பரவலாக்கம் மற்றும் பண்பாட்டை வளர்த்தெடுப்பதில் மிக முக்கியப் செயல்பாடாகும்.

## 2. எளிமையை நோக்கிய சைவ சித்தாந்த அச்சப்பிரதிகள்

சைவ சமயக் கருத்துகளை அறிந்தவர்கள் அதனைத் தத்துவ நோக்கிலும் அறிந்துகொள்ள வேண்டும் என்பதை நோக்கமாகக் கொண்டு உருவானவையே சித்தாந்த அச்சப்பிரதிகள். இங்கு சித்தாந்தக் கருத்துகளை எளிமை நோக்கில் கூற வேண்டிய தேவை என் ஏற்பட்டது என்ற கேள்வி தவிர்க்க இயலாது. சாந்திரங்களைக் கூற்ற சைவ சித்தாந்தவியலாளர்கள் அதன் கடினத்தன்மையை உணர்ந்து சைவ சித்தாந்தத்தை எளிமையாக்கி வெளியிட்ட வரலாறுகின்றன. இது குறித்து சைவ சித்தாந்த விளக்கம் (1913) என்றும் நூலில் கப்பிரமணியம் பிள்ளை "சாந்திரங்களை

புளர்த்து அவை கடினமான சூத்திரச் செய்திச் சுவைகளை இடையறாது மூக்க இவருகளை உணர்ந்து கொட்டு வளை வடிவானவச் சைவ விவகளைப் பத்திச் சூத்திரமும் விளக்கமும் சில நூல்களையுட்பட்டு வெளியிடுவதை சித்தாந்த உபநாசனாந்த" (மேலது, ப. 59) என்று குறிப்பிட்டுகின்றார்.

எளிமையாக்குவதும் என்னும் செயல் எப்படிச் செயல்படுத்தப்பட்டது என்பதைப் பற்றி பின்வரும் கருத்துகளிலிருந்து அறியலாம்.

சைவ சித்தாந்தத்தைப் பற்றிய சொற்பொழிவுகள் நிகழ்த்தல் ஆகளை அக்கவடிவமாகினர். அவ்வாறு உருவாக்கப்பட்ட நூல் சிவஞானபோத உபநிப்பாச பாடம் (1918). இதில் சிவஞான சித்தாந்தம் உள்ள சூத்திரங்கள் ஒவ்வொன்றையும் பல பாடங்களாக உள்நடையில் VP களத்தில்கொண்ட எழுதியுள்ளார்.

மூல நூலினைப் புரிந்துகொள்ள பொழிப்புணையும் பொழிப்புணையும் புரிந்துகொள்ள பதவுணையும் எழுதி வெளியிட்டுள்ளனர். சிவஞான சித்தியார் நூலுக்கு சிவஞான கவாமிகள் எழுதிய பொழிப்புணைக்கு கப்பிரமணிய தேசிக கவாமிகள் பதவுணர் எழுதியுள்ளார்.

- வினா வெண்பா ஆராய்ச்சி (1950) என்ற நூல் சைவசித்தாந்த வித்தகக் வீ. குமாபிள்ளை என்பவரால் உருவாக்கப்பட்டுள்ளது. அதில் வினா எழுதற்கு கேட்டல் நிகழ வேண்டும் எனவே சித்தாந்தத்தை வெளியிடுதற்கும் வெண்பா மீய தெரிய வேண்டிய செய்தியை முதலில் கொடுத்து, இலைய விளைவை எழுதி, அதற்கு விடை கூறுவதுபோல் இந்நூல் உருவாக்கப்பட்டுள்ளது.

- சிறியவர்களுக்கும் சைவ சித்தாந்தத்தை அறிய வேண்டும் என்ற நோக்கம் 'சித்தாந்த படவிளக்க' பாலபோதம் (1930) என்றும் நூல் வெளியிடப்பட்டுள்ளது. வசனாலங்கார தீபம் (1916) என்ற நூலில் ஒவ்வொரு சிவஞானபோத சூத்திரத்திற்கும் விளக்கம் கூறி சூத்திரத்திற்கான விளக்கம் 'சூத்திர பரிஷே விளக்கங்கள்' என்ற தலைப்பில் கொடுத்து, வினாவிற்கு பக்கத்திலே நூலின் எந்தப் பக்கத்தில் விடை இருக்கிறதோ அந்தப் பக்க எண்ணும் கொடுக்கப் பட்டிருக்கும்.

- மூன் வடிவிலும் சைவ சித்தாந்தக் கருத்துடைய குறட்பாக்கள் எழுதப்பட்டுள்ளன. அட்டாங்கியோக்களுள் வருத்தமற்றவையும் வழி (1906) என்றும் நூலில்,

"அட்டாங்கியோக சமாதி யடைந்தோருக் கட்டமா சித்திகளுண் டால்" (மேலது, ப. 67)

மொழியொப்பு மூலமாகவும் எளிமையாக்கும் பணி திகழ்த்துகின்றது.

இவ்வாறாக சைவ சித்தாந்தத்தை எளிமையாக்குவதற்கு அக்க கட்டகத்தின் துணைகொள்ளப் பல்வேறு முயற்சிகள் மேற்கொள்ளப்பட்டுள்ளன. அக்கப்பிரதி களிலிருந்து அறிய முடிகிறது. எளிமையாக்குதல் என்னும் செயல்பாடு அக்க கட்டகத்தைச் சார்ந்தே நிகழ்ந்துள்ளனதைத் தரவுகள் உறுதிபடுத்துகின்றன.

## 3. வாழ்வத்தை முதன்மையாக்கும் சைவ அச்சப்பிரதிகள்

எந்தவொன்றையும் மக்களிடம் கொண்டு சேர்க்க வடிவம் முக்கியப்பங்கு வகிக்கிறது. பொருளை மையமில்லாமல் வெறும் வடிவத்தை மட்டும் மக்களிடம் கொண்டு







வீ. அரசு தமிழ் அச்சுப் பண்பாடு : வரையறை - வரலாறு	05
மு. வையாபுரி பத்தொன்பதாம் நூற்றாண்டு அச்சுப்பண்பாடு : பத்திரிகைகளும் சமய கருத்தாடல்களும் (உதய தாரகை (1841), ப் பிரம்மனித்தியா (1886)	12
சுஜா சுயம்பு காலணிய ஆவணங்கள் : தமிழகம், ஈழம்	22
வி. தேவேந்திரன் கண்டன வெளியீடுகள் : அருட்பா மருட்பா	33
அ. மோகனா நாடகப் பனுவல் உருவாக்கம் : ஈழம் - தமிழகம் (1850 - 1900)	41
கு. கலைவாணன் சைவ அச்சுப்பண்பாட்டு வகிபாகம் : தமிழகமும் இலங்கையும்	57
சு. பிரபாவதி அச்சுப் பண்பாட்டில் தமிழ்ச் சித்திரக்கதைகள் : தமிழகம் - இலங்கை	65
வீ. அரசு தமிழியல் : வரையறை - வரலாறு காடுணாளி உரையின் அச்சு வடிவம்	74

A TEXT BOOK OF

# **DATA WAREHOUSING AND DATA MINING**



**Konda Hari Krishna  
Dr. Subbarao Kolavennu  
Dr. Sudheer Manawadi  
Dr. U. Latha**

# DATA MINING AND DATA WAREHOUSING

Konda Hari Krishna,

Dr. Subbarao Kolavennu,

Dr. Sudheer Manawadi,

Dr.U. Latha

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# Contents

1. DATA MINING .....	1
INTRODUCTION .....	1
Qualitative Attributes .....	3
STEPS INVOLVED IN KDD PROCESS.....	6
SYSTEM ARCHITECTURE .....	10
DATA MINING FUNCTIONALITIES .....	14
DATA MINING SYSTEM CLASSIFICATION .....	16
INTEGRATING A DATA MINING SYSTEM.....	22
Major Issues In Data Warehousing And Mining .....	23
DATA PREPROCESSING .....	28
DATA MINING APPLICATIONS .....	31
2. DATA WAREHOUSING .....	41
DATA WAREHOUSING COMPONENTS.....	41
DATA WAREHOUSE COMPONENTS .....	45
BUILDING A DATA WAREHOUSE.....	54
MULTI DIMENSIONAL DATA MODEL.....	63
OLAP OPERATIONS .....	70
THREE-TIER DATA WAREHOUSE ARCHITECTURE .....	77
SCHEMAS FOR MULTI-DIMENSIONAL DATA MODEL .....	82
OLAP (ONLINE ANALYTICAL PROCESSING) .....	86
INTEGRATED OLAP AND OLAM ARCHITECTURE .....	91
3. ASSOCIATION RULE MINING.....	97
MINING FREQUENT PATTERNS.....	97

ASSOCIATIONS AND CORRELATIONS.....	99
MINING METHODS .....	104
Mining Frequent Patterns With Candidate	
Generation .....	104
Mining Frequent Item Set Without Candidate	
Generation.....	107
MINING VARIOUS KINDS OF ASSOCIATION RULES.	109
MINING MULTI-LEVEL ASSOCIATIONS.....	111
CORRELATION ANALYSIS .....	117
CONSTRAINT-BASED ASSOCIATION MINING.....	119
4. CLASSIFICATION AND PREDICTION.....	125
Issues Regarding Classification And Prediction.....	128
CLASSIFICATION BY DECISION TREE INDUCTION ...	131
BAYESIAN CLASSIFICATION.....	141
BAYESIAN THEOREM .....	141
BAYESIAN CLASSIFICATION.....	143
NAÏVE BAYESIAN CLASSIFICATION.....	144
BAYESIAN BELIEF NETWORKS.....	145
RULE BASED CLASSIFICATION.....	147
CLASSIFICATION BY BACK PROPAGATION.....	150
SVM—SUPPORT VECTOR MACHINES.....	155
PREDICTION .....	159
LINEAR REGRESSION.....	160
5. CLUSTERING APPLICATIONS AND TRENDS IN DATA MINING	163
WHAT IS CLUSTER ANALYSIS? .....	163
TYPES OF DATA IN CLUSTERING ANALYSIS.....	165
CATEGORIZATION OF MAJOR CLUSTERING METHODS	167

PARTITIONING METHODS.....	171
HIERARCHICAL METHODS .....	176
DENSITY-BASED METHOD .....	181
GRID-BASED METHOD .....	184
MODEL-BASED METHODS .....	187
CONSTRAINT-BASED METHOD .....	190
WHAT IS OUTLIER DISCOVERY .....	192
SOCIAL IMPACTS OF DATA MINING .....	196
MINING WWW (WORLD WIDE WEB).....	199
MINING TEXT DATABASE.....	202
MINING SPATIAL DATABASES.....	206
6 CASE STUDY .....	210
PENTAHO OLAP TOOL.....	210



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**AVIT**  
AARUPADAI VEEDU INSTITUTE OF TECHNOLOGY

**3<sup>rd</sup> NATIONAL CONFERENCE ON  
RECENT INNOVATIONS  
IN BIOTECHNOLOGY – 2022  
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***Proceeding Of***National Conference on **RECENT INNOVATIONS IN BIOTECHNOLOGY-2022*****Conducted on*** 29-09-2022***Paper Code*** **RIBT OP 22-34****Title****Extraction of chitin and chitosan from Cephalopoda, Brachyura and its Application****Authors****Santhosh Kumar T<sup>1</sup>, Indumathi Parameswaran<sup>3\*</sup>**<sup>1</sup>Department of Biotechnology, Dwaraka Doss Goverdhan Doss Vaishnav College, Arumbakkam, Chennai – 600 106, Tamilnadu, India.<sup>3\*</sup>Assistant professor, Department of Biotechnology, Dwaraka Doss Goverdhan Doss Vaishnav College, Arumbakkam, Chennai – 600 106, Tamilnadu, India.**Correspondence\***: Indumathi Parameswaran<sup>3\*</sup>**ABSTRACT**

Biopolymers is found in the extracellular matrix of sponges, mollusks, nematodes, arthropods, and fungi, among other invertebrates. It is a common component of protective or supporting extracellular matrices that cover the tissue that makes it or the entire organism body. Chitosan is chitin is said to be the second most abundant natural biopolymer on the planet after cellulose, and it is found in arthropods, crustaceans, fungi, and yeast. The extraction of chitin and chitosan from *Brachyura* shell and *Cephalopoda* backbone was carried out by chemical method such as deproteinization, demineralization and decolourization for chitin and in case of chitosan further the sample was deacetylated. Chitin and Chitosan are consider as a potent antimicrobial effect against *Staphylococcus aureus* and *Escherichia coli*. The functional group detected using FTIR and confirms the structure of chitin and chitosan. X-ray diffraction was done to confirms the determination of structure of crystalline materials. Production of starch from *Manihot esculenta*. Production of starch from *Manihot esculenta* and used for bioplastic preparation. Preliminary work was carried out for bioplastic production. Chitin and chitosan can be used as fiber, biofilm, affinity chromatography column matrix, gas-selective membrane, plant disease resistance promoter, anti-cancer agent, wound healing promoting agent, antimicrobial agent, preservation of fruit, cosmetics, artificial organs and in pharmaceuticals.

**Key words:** Biopolymer, Bioplastic, Chitin, Chitosan, FTIR

***Proceeding Of***National Conference on **RECENT INNOVATIONS IN BIOTECHNOLOGY-2022*****Conducted on*** 29-09-2022***Paper Code*** **RIBT OP 22-35****Title****Isolation, identification, antibiotic and antagonistic activity of *Lactobacillus fermentum* against various pathogens****Authors****Janani Sri L<sup>1</sup>, Indumathi Parameswaran<sup>3\*</sup>**<sup>1</sup>Department of Biotechnology, Dwaraka Doss Goverdhan Doss Vaishnav College, Arumbakkam, Chennai – 600 106, Tamilnadu, India.<sup>3\*</sup>Assistant professor, Department of Biotechnology, Dwaraka Doss Goverdhan Doss Vaishnav College, Arumbakkam, Chennai – 600 106, Tamilnadu, India.**Correspondence\***: Indumathi Parameswaran<sup>3\*</sup>**ABSTRACT:**

*Lactobacillus fermentum* was isolated from fermented milk on Nutrient agar medium and screened by carbohydrates fermentation test. Isolated organism was identified based on morphological, biochemical and physical characterization. The genomic DNA was isolated using the lysis method the samples were further amplified using PCR technique for 25cycles and used for sequencing of 16s rRNA. The sequence obtained from 16s rRNA was blast and run using NCBI tool and phylogenetically analysed as *Lactobacillus fermentum*. The isolated *Lactobacillus fermentum* has both the antibiotic and antagonistic property against the pathogens such as *Escherichia coli*, *klebseilla pneumonia*, *Staphylococcus aureus*, *Proteus vulgaris*, *Pseudomonas aeruginosa*, *Vibrio cholera*, *Salmonella typhii*. *Lactobacillus fermentum* has a property of producing bacteriocins substances it has the ability to inhibit the growth of an organism either they are species related are different organism. Using the microbes available in the environment probiotics can be prepared and it has beneficial effect for the human. The most common problem occurring in women's is urogenital infection it can be prevented by *Lactobacillus fermentum* probiotics. *Lactobacillus*, human origin, non-pathogenic having high resistance to passing through the intestine and being beneficial to the immune system.

**Key Words:** PCR, NCBI, Probiotics and Bacteriocins

***Proceeding Of***National Conference on **RECENT INNOVATIONS IN BIOTECHNOLOGY-2022*****Conducted on*** 29-09-2022***Paper Code*** **RIBT OP 22-36****Title****Phytochemical, Antioxidant, Antimicrobial and GC MS analysis of *Hylocereus undatus*****Authors****Priya S<sup>1</sup>, Haritha S<sup>2</sup>, Indumathi Parameswaran<sup>3\*</sup>**<sup>1,2</sup> Department of Biotechnology, Dwaraka Doss Goverdhan Doss Vaishnav College, Arumbakkam, Chennai – 600 106, Tamilnadu, India.<sup>3\*</sup> Assistant professor, Department of Biotechnology, Dwaraka Doss Goverdhan Doss Vaishnav College, Arumbakkam, Chennai – 600 106, Tamilnadu, India.**Correspondence\*:** Indumathi Parameswaran<sup>3\*</sup>**ABSTRACT**

*Hylocereus undatus* is typically the most cultivated vine cactus belonging to the family of cactaceae. It is native to Mexico and America, Commonly known as dragon fruit. It is rich in polyphenolic components. The present study was carried out to determine the phytochemical constituents of both aqueous and ethanol extract. Ethanol extracts of *Hylocereus undatus* shows the strong presence of phenols, flavonoids, carbohydrates, amino acids, protein, saponin and the aqueous extracts has the presence of carbohydrates, protein and saponin compounds. The quantitative analysis of phenol, flavanoid, caratenoid and protein was also determined. Reducing power serves as a significant indicator of potential antioxidant. The result indicates that the ethanol extract of white pulp shows higher reducing power. The ethanol extract has antimicrobial and antioxidant properties. The functional groups present in the ethanol fruit extract of *Hylocereus undatus* were determined using Fourier-transform infrared (FTIR) Spectroscopy and the bioactive compounds by GC-MS analysis. Besides its attractive colouration, the fruits of *Hylocereus undatus* are being prevailed globally because of its rich source of polyphenolic components and their antioxidant activity.

**Key words:** Antioxidant, Antimicrobial, FTIR, Bioactive compounds, GC-MS

***Proceeding Of***National Conference on **RECENT INNOVATIONS IN BIOTECHNOLOGY-2022*****Conducted on*** 29-09-2022***Paper Code*** **RIBT OP 22-11****Title****Evaluation of antioxidant activity from the floral extract of "*Melia dubia*": *in vitro* studies****Authors****<sup>1</sup>Hema.S, <sup>2</sup>Gokul raj.D, <sup>3</sup>Uma.S\***<sup>1, 2 & 3</sup> Department of Biotechnology, Department of Biotechnology, Dwaraka Doss Goverdhan Doss Vaishnav College, Chennai, Tamil Nadu, India.**Correspondence\*** [umas@dgvaishnavcollege.edu.in](mailto:umas@dgvaishnavcollege.edu.in)**ABSTRACT**

Herbal plants are known to contain a wide range of natural antioxidants that protect and maintain their physical and metabolic integrity, as well as their heredity via their seeds. The use of herbs and herbal extracts for their healing powers can be traced back to the earliest myths, traditions, and writings used to codify those plants that can relieve pain and treat diseases. Significant evidence has accumulated, indicating that reactive oxygen species (ROS) and other oxidants play important roles in the development of a variety of disorders and diseases. The antioxidant present in the medicinal plants contributes to the disease protection. *Melia dubia* is an endemic species of Southeast Asia and Australia in the *Meliaceae* family. The aim of our study is to focus on the *in vitro* evaluation of the antioxidant activity from the floral extract of *Melia dubia*. Antioxidant activity of *Melia dubia* was investigated using DPPH radical scavenging method, ABTS radical scavenging assay, hydroxyl radical scavenging assay and superoxide anion scavenging assay. The study showed that the flowers of *Melia dubia* significant antioxidant potential.

Key words: antioxidant floral extract *Melia dubia*

***Proceeding Of***National Conference on **RECENT INNOVATIONS IN BIOTECHNOLOGY-2022*****Conducted on*** 29-09-2022***Paper Code*** **RIBT OP 22-20****Title****Evaluation of antioxidant activity from the floral extract of "*Solanum trilobatum*": in vitro studies****Authors****<sup>1</sup>Megala.P, <sup>2</sup> Ruban Chakrvarthy R G, <sup>3</sup>Uma.S\***<sup>1, 2 & 3</sup> Department of Biotechnology, Department of Biotechnology, Dwaraka Doss Goverdhan Doss Vaishnav College, Chennai, Tamil Nadu, India.**Correspondence\*** [umas@dgvaishnavcollege.edu.in](mailto:umas@dgvaishnavcollege.edu.in)**ABSTRACT**

Medicinal plants are playing an important role in the health of millions of people lives in many villages of India in their day to day life by their traditional usage. Nature acts as a source of medicinal plants for thousands of years and an impressive number of modern drugs has been isolated from natural sources is based on their use in traditional medicine Even now, approximately 80% of the third world population is almost entirely dependent on traditional medicines for maintaining general health and combating many diseases. The antioxidant present in the medicinal plants contributes to the disease protection. *Solanum trilobatum* is an endemic species of Southeast Asia and Australia in the *Solanaceae* family. The aim of our study is to focus on the in vitro evaluation of the antioxidant activity from the floral extract of *Solanum trilobatum* . Antioxidant activity of *Solanum trilobatum* was investigated using DPPH radical scavenging method, ABTS radical scavenging assay, hydroxyl radical scavenging assay and superoxide anion scavenging assay. The study showed that the flowers of *Solanum trilobatum* significant antioxidant potential.

Key words: antioxidant floral extract *Solanum trilobatum*

***Proceeding Of***National Conference on **RECENT INNOVATIONS IN BIOTECHNOLOGY-2022*****Conducted on*** 29-09-2022***Paper Code*** **RIBT OP 22-21****Title****Repeated Dose 28 Days Oral Toxicity Study of 2-Thiohydantoin on Wistar Albino Rats****Authors****<sup>1</sup>Uma.S , <sup>2</sup> Dr.P.T.Devika**<sup>1</sup>PG Department of Biotechnology, Dwaraka Doss Goverdhan Doss Vaishnav College, Chennai, Tamil Nadu, India. & PG & Research Department of Biochemistry, Mohamed Sathak College of Arts & Science, Chennai-119, Tamilnadu, India<sup>2</sup>PG & Research Department of Biochemistry, Mohamed Sathak College of Arts & Science, Chennai-119, Tamilnadu, India.**Correspondence\*** [umasbiochem@gmail.com](mailto:umasbiochem@gmail.com)**ABSTRACT**

The principal purpose of toxicology studies in the drug discovery progression is to assess the safety of possible drug choices. This can be achieved by the use of pertinent animal models and proper methodologies. The crucial goal is to apply the results of animal responses to human beings. Toxicological studies are for conducted for the safety and evaluation of the drug thereby fixing the appropriate drug dose level for the infusion and therapeutic purpose. The aim of this study is to assess the repeated 28 Days Oral Toxicity toxicity dose of 2-Thiohydantoin on Wistar Albino rats. The visual observations included skin changes, mobility, aggressiveness, sensitivity to sound and pain, as well as respiratory movements. Behavioral signs, hematological parameters and histopathology of the vital organs were done. In repeated dose 28-day oral toxicity study, test drug 2-Thiohydantoin has did not have any major toxic effects at therapeutic dose level in Wistar albino rats.

**Key words:** Repeated drug dose oral toxicity 2-Thiohydantoin

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## Review on *Citrus aurantifolia* and its Secondary Metabolites

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### Abstract:

Plants are essential to human survival and can be used as a source of medicine to heal illnesses and promote wellbeing that are caused by microorganisms including viruses, bacteria, and fungi. In the past, plant sources were the only method for people to endure illnesses. Herbal medicines were utilized to cure human illnesses as well; plants have been employed as traditional medicines for a very long time. Plants, however, contain phytochemicals, which are useful in the field of medicine. Here, *Citrus aurantifolia* belongs to the Citrus hybrid is incredibly nourishing and has numerous health advantages. It is one of the plants that is grown all over the world and utilized as food in addition to being regarded as a medicinal herb. The leaves, fruits, and peels of *Citrus aurantifolia* were the sources of the substances that have a variety of benefits against human diseases, including antibacterial, anti-diabetic, anti-inflammatory, anticancer, and antilipidemic. *Citrus aurantifolia* contains alkaloids, carotenoids, coumarins, essential oils, flavonoids, phenolic acids, and triterpenoids. Hence it possessed to have Antiseptic, antiviral, antifungal, anthelmintic, astringent, diuretic, mosquito bite prevention, constipation relief, headache relief, arthritis relief, cold and flu relief, and appetite stimulants due to presence of secondary metabolites. The novel compounds present in *Citrus aurantifolia* are apigenin, hesperetin, kaempferol, limonoids, quercetin, naringenin, nobiletin, and rutin that can be studied for its medicinal application through *in vivo*, *in vitro* and *in silico* approaches.

**Keywords:** *Citrus aurantifolia*, Herbal medicine, secondary metabolites, medicinal values, *In silico* analysis.

## Review on *Solanum virginianum* and its Secondary Metabolites

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Arumbakkam, Chennai.

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### Abstract:

Indian night shade or yellow berried night shade plant is the common name for *Solanum virginianum* L. The Ayurvedic medicinal herb's leaves, branches, blooms, and fruits are all beneficial components. to investigate the antibacterial properties of chloroform-extracted plant parts from *S. virginianum*. All of the investigated plant extracts showed varying degrees of antibacterial activity toward the examined microorganisms. The study of medicinal plants led to the identification of numerous bioactive substances with exceptional therapeutic capabilities. Traditional medicine frequently employs the perennial wild-growing medicinal plant *Solanum virginianum*. The scientific validity of folklore claims and *S. Virginianum's* traditional use to treat a variety of ailments is confirmed by recent literature on the pharmacological activity of the plant. The goal of the current review is to provide a comprehensive summary of all the information on pharmacological activities, which serves as a foundation for further investigation of its unexplored therapeutic effects, such as immunomodulation, antipiles activity, antianaphylactic activity, and folkloric claims of sexual behaviour. The bioactive compounds present in *Solanum virginianum* are phenolic acids, Alkaloids, flavonoids, carotenoids, Saponins. *Solanum virginianum* compounds have antidiabetic, anticancer, antiulcer, anti-inflammatory and antioxidant properties. Bioactive substances like the glycoalkaloid solanosine, the steroidal compound cholesterol, and the steroidal alkaloids caffeic acid, coumarins, and triterpenoids. The steroidal alkaloids solanocarpine, solamorgine, and solanocarpidine are present in the fruits of *solanum virginianum*. Due to the presence of secondary metabolites it has widely used in the treatment of cough, chest pain, against vomiting, hair fall, leprosy, itching scabies, skin diseases and cardiac diseases associated with edema.

**Keywords:** *Solanum virginianum* L, Ayurvedic medicine, pharmacological activity, secondary metabolites, therapeutic effects.

## ROLE OF HUMAN MICROBIOME IN THE TUMOR ENVIRONMENT

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### ABSTRACT:

Tumor may be considered as a swelling or morbid enlargement that results from an overabundance of cell growth and division. Cancer is the leading cause of death worldwide, accounting to nearly 10 million deaths. Human microbiome contains over 100 trillion microbes which are found to be beneficial. It plays a vital role in immune response. Gut resident bacteria are able to produce a number of metabolites and byproducts necessary to protect hosts and gut's homeostasis. The microbiota is essential in regulating fundamental biological events and this relationship has evolved into a symbiosis. Disruption of this balance leads to dysbiosis, which leads to disease conditions such as cancer and autoimmune disease. The immune system and the gut microbiome interact to maintain the homeostasis of the gut and alteration in the microbiome composition lead to immune dysregulation promoting chronic inflammation and development of tumors. The environmental factors are crucial determinants whose alteration induces changes in the host gene expression, metabolic regulation and local and systemic immune response, thereby influencing cancer development. The altered microbiome identified within the tumor microenvironment, tumor tissue, and even nonadjacent environments shows a strong correlation between the microbiome and tumor. Some bacteria help fight tumors by activating immunity, while some mediate immunosuppression to help cancer cells escape from the immune system. The role of microbiome is crucial in immunotherapy. More and more studies revealed that the effects and complications of tumor immunotherapy are related to the composition of gut microbiome. The microbiome affects tumor initiation and progression through direct effects on the tumor cells and indirectly through manipulation of immune system. It can also determine responses to cancer therapies and predict disease progression and survival. Microbiome based therapies proves to be a future for therapies related to tumor.

**Keyword:** Tumor, Dysbiosis, Immunotherapy

## A REVIEW ON STRUCTURE AND CLINICAL APPLICATIONS OF BOTULINUMNEUROTOXIN

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### ABSTRACT:

Botulinum neurotoxin, also referred to as BoNT, is a neurotoxic-protein produced by an anaerobic, gram-positive, rod shaped bacterium called *Clostridium botulinum*, commonly found in plants, soil, intestinal tract of animals. It prevents the discharge of neurochemical neurotransmitters from nerve fibre endings at the fascicle junction, thereby inflicting flaccid paralysis. It was initially used to treat hemifacial spasm, strabismus and blepharospasm and was approved by United States Food and Drug Administration in the year 1989. Later it was used for cosmetic uses and also for the treatment of many other diseases. Botox is greatly known for its ability to lower the appearance of facial wrinkles, neck spasms and excessive sweating. The toxin is released as a single chain by the bacterium, but in its activated form, it is converted into a two chain protein comprising a 100 kDa heavy chain and a 50 kDa light chain joined together by a disulfide bond. It is also called as "Miracle Poison". It is of that much toxicity that at most 1 nanogram per kilogram can kill a human being. It weakens or paralyses the muscles and affects nerves which are a part of nervous system, and causes Muscle Weakening. This review focuses on the structure, pharmaceutical and clinical uses, diagnostic, cosmetic, and other uses of Botulinum neurotoxin.

Keywords: Botulinum, Hemifacial spasm, Neurotoxin, Neurochemical Transmitters.

## ANTIVIRAL AND ANTIFUNGAL DEFENCE MECHANISMS OF MOSQUITO: EXPLORING THEIR IMMUNE SYSTEM

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### **Abstract:**

Mosquitoes have gained notoriety for their nature and the harmful diseases that they cause. These tiny creatures themselves have a sophisticated immune system to combat other pathogens like fungi and viruses.

They utilize the physical (their exoskeleton) and physiological (midgut and salivary gland) barriers to filter out pathogens. To counter these pathogens several signalling pathways like Toll and IMD pathways are employed. The hemocele houses hemolymph which carries various proteins and pattern recognising receptors in charge of initiating phagocytosis when they detect foreign materials that are toxic to the host. When it comes to the antifungal and antiviral responses, the immune system of mosquito recognizes fungi and boost up its humoral and cellular immune responses in the hemocele and epithelial immune responses in the gut. The regulation of antiviral and antifungal responses are regulated through multiple signal transduction pathways transcriptional. Proteolytic protease cascades furnish additional regulation of antifungal immunity. Together, these immune responses give an effective hedge to fungal and viral infections which need to be overcome by entomopathogens. Antimicrobial peptides are employed when encountering gram positive and negative bacteria.

**Keywords:** Mosquito, innate immunity, cellular immunity, Antifungal, Antiviral, signal transduction pathways.

## FOOD ALLERGY AND FOOD INTOLERANCE

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### ABSTRACT:

Food allergies encompass both IgE-mediated and cell-mediated allergies. Symptoms of IgE-mediated food allergies range from mild to severe and life threatening. Peanuts, tree nuts, crustacean shellfish, fish, milk, eggs, soybeans, and wheat are the most common causes of IgE-mediated food allergies. Food intolerance involves the digestion system not the immune system so it is different from food allergy. When a person eats a meal that causes food intolerance, it means the food is not broken down correctly in the body and causes stomach distress. Symptoms of an allergy and an intolerance can appear similar, but one clear difference is how they affect your body. The prevalence of food allergies is rising and the standard of care is not optimal, consisting of food-allergen avoidance and treatment of allergen-induced systemic reactions with adrenaline. All adverse food reactions are erroneously labeled as "Food Allergy." This has to be recognized and avoided to make a proper evaluation, diagnosis and management. Surveys have shown that the prevalence of food allergy based on public perception runs as high as 60%, whereas the true prevalence is around 2–8%. Food allergy is more common in children (6–8%) compared to adults (1–2%). The only way to avoid an allergic reaction is to avoid the foods that cause signs and symptoms. However, despite your best efforts, you may come into contact with a food that causes a reaction. While there's ongoing research to find better treatments to reduce food allergy symptoms and prevent allergy attacks, there isn't any proven treatment that can prevent or completely relieve symptoms. One treatment currently being studied as a treatment for food allergy is oral immunotherapy. The therapy of food intolerance is a corresponding diet. This requires a careful diagnosis and identification of the causative foods.

Keywords: Food allergy, Food intolerance, Immune system, Survey report and Immunotherapy.

# Regulatory B cells (Bregs) and T cell regulation (Tregs) in Cancer

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## ABSTRACT:

The regulation and roles of Bregs and Tregs in cancer and the roles of B cells in tumor immunity with a focus especially on the T cell response. It selectively depleting regulatory B cells as a potential therapeutic strategy for patients with cancer. Tumour immunity against cancer is promoted by B cells and as part of a tumour therapy becomes increasingly attractive as more studies shown an inhibitory role of host B cells on anti tumor immune responses. Regulatory B cells (Bregs) can inhibit other immune cells through cytokines secretion and antigen presentation, which give them the role in the pathogenesis of cancers. More researches focused on the roles of Bregs and the cytokines such as Interleukin-10 (IL-10) and transforming growth factor beta (TGF- $\beta$ ) secreted by Bregs. A technology called CART therapy in which T cells are engineered to attack specific cancer cells. A patient's T cells are collected and genetically engineered to produce chimeric antigen receptor. This is designed to allow T cells to recognize a specific protein on tumour cell. Regulatory T cells (Tregs) have been shown to suppress natural killer cell mediated cytotoxicity in epithelial tumours such as lung, breast and colorectal. Tregs suppress activation, proliferation and cytokine production of CD4+ T cells and CD8+ T cells, and are thought to suppress B cells and dendritic cells. Increase in Tregs within tumour and circulation of cancer patients, observed in early studies implied their involvement in pathogenesis and disease progression. Treg cells have opened up opportunities for their selective targeting in cancer with the goal of alleviating their suppression of antitumor immune responses while maintaining overall immune homeostasis.

**Key words:** Cancer, Bregs and Tregs, Diseases and CART Therapy

## **Isolation of Collagen from *Oreochromis niloticus***

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### **Abstract:**

Collagen acts as the glue which keeps the body together. Collagen is a fibrous protein which is found in the bodies of human and other animals. It is referred to be the most abundant protein in human bodies, constituting 30% of the protein in our bodies. It is used in health care, medical and nutrition. Scales in fishes are one of the best sources of collagen. It is also widely used in food, pharmaceutical and biomedical industries. But its use is limited due to the high cost. Fish waste is one of cost-effective source of collagen. Nile tilapia (*Oreochromis niloticus*) is one of the species of freshwater fish consumed in India. From *Oreochromis niloticus*, Acid-soluble collagen (ASC) was extracted. ASC was extracted from demineralized scales, where the scales was demineralised by treating it in EDTA. The isolated collagen was found to be denatured at 37°C. Sodium dodecyl sulphate-polyacrylamide gel electrophoresis (SDS-PAGE) determined the molecular mass of the extracted collagen. The presence of bands corresponding to the collagen extracted was shown by the Fourier transform infrared (FTIR) spectrum. SDS-PAGE and FTIR verified the isolated protein as collagen.

**Keywords:** Collagen, scales, SDS-PAGE, FTIR.

## Potential Role of Silver Nanoparticles in Dye Degradation

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### **Abstract:**

To create nanomaterial, a variety of physical, chemical, and biological techniques have been employed. Specific technologies have been developed to synthesize noble metal nanoparticles of a particular shape and size. They are nonetheless pricey and employ dangerous chemicals. Consequently, there is an increasing need to create sustainable and environmentally beneficial approaches. A green chemistry strategy that links Microbial Biotechnology with nanotechnology is the microbial production of nanoparticles. Generally speaking, fungus can withstand higher metal concentrations than bacteria. Due to the high yields, abundance of proteins produced, simplicity of handling, and low toxicity of the residues, fungi are interesting candidates for use as stabilizing and reducing agents in the biological synthesis of silver nanoparticles. Additionally, the nanoparticles are coated with fungus-derived biomolecules throughout this production process, which can increase stability and perhaps bestow biological activity. It was discovered that biologically created nanoparticles might destroy harmful pigments. The biosphere is now seriously threatened by dye wastewater. The toxic effects of the textile dye effluent cannot be mitigated without adequate treatment. Since the difficulty of getting rid of these harmful non-biodegradable colours has emerged, hence this research focuses on dye degradation using silver nanoparticles.

**Keywords:** nanoparticles, fungus, stabilizing agents, textile dye effluent, degradation.



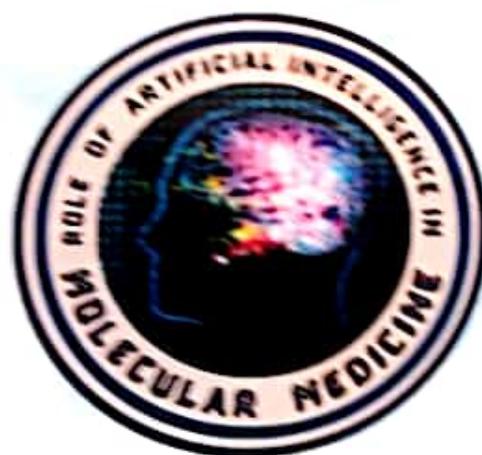
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**IN-VITRO ANTIOXIDANT AND CYTOTOXIC ANALYSIS AND IN-SILICO NETWORK PHARMACOLOGY STUDY ON BAUHINIA PURPUREA TO IDENTIFY BIOACTIVE COMPOUNDS AGAINST NEUROLOGICAL DISORDERS**

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**ABSTRACT**

The advantage of Herbal medicine is due to the presence of natural constituents which are highly effective right from ancient times. Natural compounds derived from plants or animals have huge therapeutic properties. The reason behind the activities of the plant is due to the biological activities of the metabolites present. The secondary metabolites such as flavonoids, phenols, saponins etc are responsible for a variety of diseases. This current study focuses on the specific plant Bauhinia purpurea, and the ethanolic leaf extract of this plant is extracted by the Soxhlet apparatus. Antioxidant activity is performed using DDPH assay and the inhibition percentage is observed. The molecular mechanism of Bauhinia purpurea against neuropathway and associated pathways is understood by the network pharmacology and by Molecular docking studies. Binding database, STRING database, KEGG, Cytoscape and AutoDock4.2 were used in this study. The study identifies that the compounds such as lanosterol, stigmast-5-en-3-ol, stigmasterol and beta sitosterol and were found to be in interaction with proteins molecules like GABRA4, GRIN1, GRIN2B and F2 which is involved in the neurological disorders.

**KEYWORDS:** Bauhinia purpurea, Natural compounds, Network pharmacology, neurological disorders, Antioxidant activity.

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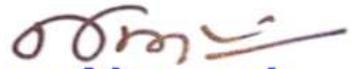


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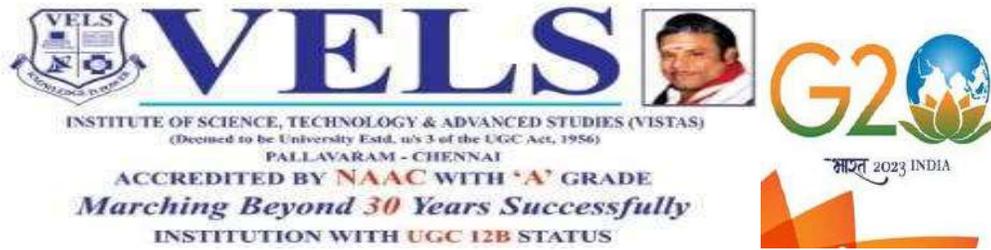
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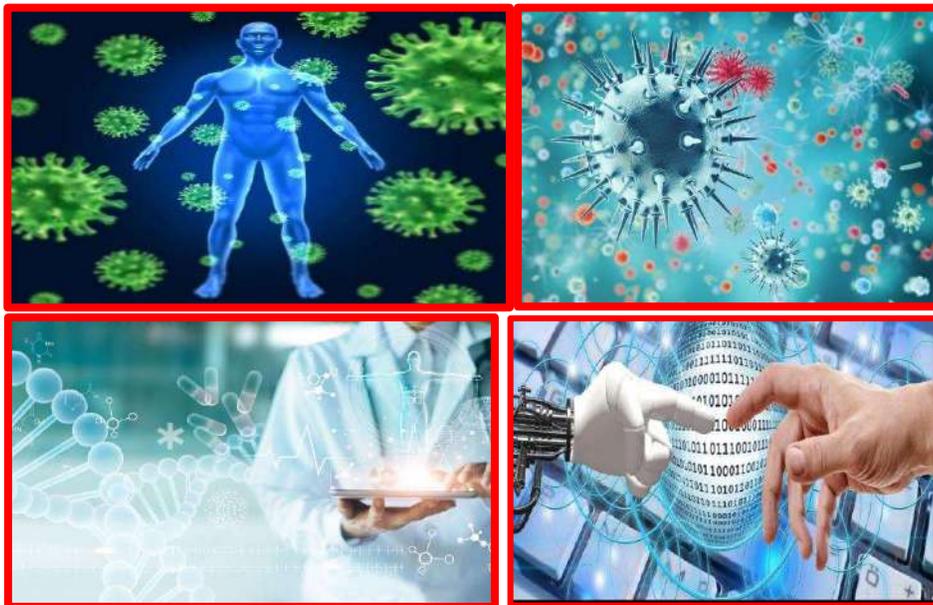
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## BIOINFORMATICS APPROACHES TO INFECTIOUS DISEASE



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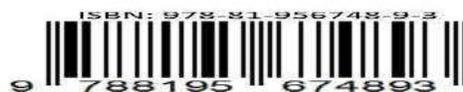
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## Bioinformatics Approaches to Infectious Disease



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**VIRTUAL EVALUATION OF NATURAL DEPRESSION COMPOUNDS FROM  
INDIAN MEDICINAL PLANTS.**

**Suganya J<sup>1\*</sup> and G.Shoba<sup>2</sup>**

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<sup>2</sup>Guest Lecturer, Department of Biotechnology Dwaraka Doss Goverdhan Doss  
Arumbakkam, Chennai - 600106, Tamil Nadu, India.

**ABSTRACT:**

Depression is one of the most disabling diseases, depression represents a major public health problem, and the successful long-term treatment of individuals. Effective preventive treatment requires continued pharmacologic management of depression. There are most important traditional plants like *Nardostachy jatamansi*, *Clitoria ternaiea*, *Acorus clamus* whose previous pharmacological studies were reported to possess Antidepressant activity, Anticonvulsant activity, Nootropic activity, Antioxidant activity, Antidiabetic activity, Anticancer activity, Antimicrobial, Anti-ulcer activity. The 11 phytochemical compounds were identified from the plant *Nardostachy jatamansi*, *Clitoria ternaiea*, *Acorus clamus* through literature survey. The anti-depression activity of protein 1gos was responsible for depression caused to human. 11 compounds were analyzed for its anti-depression activity against 1gos protein using docking studies to explore the binding interaction between the compounds of *Nardostachy jatamansi*, *Clitoria ternaiea*, *Acorus clamus* and the protein. The docking result revealed that only one compound Clomiphen citrate exhibited the best binding interaction of -8.68 Kcal/mol with binding site of the anti-depression protein. Further in vitro studies on Clomiphen citrate compound can lead to discovery of novel potential drugs against depression (anti-depression activity)

**Keywords:** *Nardostachy jatamansi*, *Clitoria ternaiea*, *Acorus clamus*, Phytochemical compounds, 1GOS (protein), Docking.

## IDENTIFICATION AND ANALYSIS OF NATURAL FERTILITY COMPOUNDS FROM 3 MEDICINAL PLANT USING *INSILICO* ANALYSIS

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Arumbakkam, Chennai - 600106, Tamil Nadu, India.

### ABSTRACT:

In humans, infertility is the inability to become pregnant/impregnate or carry a pregnancy to full term. Estimates from 1997 suggest that worldwide about five percent of all heterosexual couples have an unresolved problem with infertility. Many more couples, however, experience involuntary childlessness due to female infertility which is about 20-35%. The most common cause of female infertility is ovulatory problems which generally manifest themselves by sparse or absent menstrual periods. There are most important traditional plants like *Achyranthe saspara* (vaikoal poo), *Justica adhatoda* (adhatoda), *Punica grantum* (pomegranate) whose previous pharmacological studies were reported to possess anti-fertility, anticancer, antidiabetic, antifungal and antimicrobial actions. The 9 phytochemical compounds were identified from the plant *Achyranthe saspara*, *Justica adhatoda*, *Punica grantum* through literature survey. The estrogenic protein 1A52 was responsible for infertility caused to human. Further 9 compounds were analyzed for its estrogenic activity (infertility) against 1A52 protein using docking studies to explore the binding interaction between the compounds of *Achyranthe saspara*, *Justica adhatoda*, *Punica grantum* and the protein. The docking result revealed that only one compound Clomiphene citrate exhibited the best binding interaction of -15.68 Kcal/mol with binding site of the estrogenic protein. Further *in vitro* studies on Clomiphene citrate compound can lead to discovery of novel potential drugs against infertility (estrogenic activity).

**Keywords:** *Achyranthes aspera*, *Justica adhatoda*, *Punica grantum*, Phytochemical compounds, 1A52 (protein), Docking.



## பான் செக்கர்ஸ் மகளிர் கல்லூரி



தேசிய மதிப்பீட்டுத் தரநிர்ணயக் குழுவின் 'A++' தரச் சான்றிதழ் பெற்றது  
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# தமிழ் இலக்கியங்களில் சீறுதானியங்கள்

(பன்னாட்டுக் கருத்தரங்க அய்யங்க அட்டுரைகள்)



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தமிழ் கல்வியறிவு, மான் வக்கிளி மகளிர் கல்வியறிவு  
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**Dr. V.R. PALANIVELU**

47	A Study On Investors Perception And Awareness Towards Impact Investing With Special Reference To Investors In The State Of Tamil Nadu Dr. K. Vijayakumar, Mrs. B. SumaiyaSherin	38
48	Innovative Services And Operational Mechanism Of Neo Banks In India Ajit Kumar B, Dr.Indu G. Krishnan	38
49	Modelling And Forecasting Of Stock Price Volatility Of Nifty 50 Companies Using Arch Model – An Analysis K. Kannan, Dr. S. Balamurugan	39
50	Operational Mechanism Of Repository Syatem (E- Insurance Account) In Insurance Industry Ajosh George, Ashish C Pius	40
51	Assessing Financial Literacy Levels Of Banking And It/Ites Employees Using Logistic Regression Dr.R.Vishal Kumar, Dr.P.Shanmugha Priya	41
52	Risk Management In Indian Financial Market Mrs.P.Revathi	41
53	A Study On Silicon Shortage And Its Impact On Global Economy Mr. S. Saravanan, Mr. M. Aadithyan	42
54	Influence Of Financial Inclusion On Financial Well-Being Of Low-Income Households In Chengalpattu District M. Stella & Dr. T. Ramachandran	43
55	A Study On The Working Conditions Of Construction Workers In Kozhikode District- Kerala Jisha.C.Chandran, Dr.K.Selvaraj	43
56	A Study On Problems And Challenges Of Fishermen In Thoothukudi Dr. B. Baranirani, Maria TherasSantrina. X	44
57	Job Satisfaction Among Lecturers With Relation To Certain Demographic Variables <i>Savitha K, J Venkatachalam</i>	45
58	A Study On The Influence Of Uncivilized Behavior At Work Place And Its Impact On The Performance Of Professionals Towards Discharging Their Services -With Special Reference To Chennai City Ms. K. Lakshmi, Dr. Rao Prashanth Jyoty, Ms. M. Mahalakshmi Priyadharshini	45
59	Enhancing Organizational Work Culture Through Human Value System <i>R Satish, K. Murugabhoopathy</i>	46
60	Developing And Sustaining Employee Engagement Practices And Its Impact On Employee Performance In Private Sector Banks During Pandemic Period R.Shruthi, Dr.J.Senthil Velmurugan	47

## **JOB SATISFACTION AMONG LECTURERS WITH RELATION TO CERTAIN DEMOGRAPHIC VARIABLES**

**Savitha K, PhD Research Scholar, Dept of Psychology, Periyar University, Salem 636011.**

**J Venkatachalam, Professor, Dept of Psychology, Periyar University, Salem 636011.**

### **ABSTRACT**

Academicians are crucial in providing the students with knowledge of education. Mostly, highly dedicated lecturers can achieve effective results by producing high-quality students who will contribute to their country in the future. This is only possible where lecturers can only be successfully retained in their jobs if they are happy. Job satisfaction contributes to superior performance and retention. Thus, the current study aims at exploring how age and marital status affect the dimensions of Job Satisfaction of lecturers. Data were collected from 164 lecturers, through purposive sampling method by online mode. Job satisfaction scale by Dr. Amar Singh and Dr. T.R. Sharma (1999) was included for measuring Job satisfaction dimensions. The results are taken and discussed accordingly. Hence there is a genuine need to keep lecturers satisfied with their jobs and careers. They will not only produce future leaders of high calibre, but they will also contribute to the development of any country by educating the next generation.

**Keywords:** Job Satisfaction, Lecturers, Age and Marital Status

## **A STUDY ON THE INFLUENCE OF UNCIVILIZED BEHAVIOR AT WORK PLACE AND ITS IMPACT ON THE PERFORMANCE OF PROFESSIONALS TOWARDS DISCHARGING THEIR SERVICES- WITH SPECIAL REFERENCE TO CHENNAI CITY**

**Ms. K. Lakshmi, Assistant Professor, Department of BBA, Dwaraka Doss Goverdhan  
Doss Vaishnav College,**

**Dr. Rao Prashanth Jyoty, Assistant Professor, Department of BBA, Dwaraka Doss  
Goverdhan Doss Vaishnav College,**

**Ms. M. Mahalakshmi Priyadharshini, Assistant Professor, Department of BBA, Dwaraka  
Doss Goverdhan Doss Vaishnav College,**

### **ABSTRACT**

The aim of the study is to define uncivilized behavior and cull out the impact of uncivilized workplace behavior in the performance of professionals those who have the

capability to prioritize, plan and apply strategies. Moreover, they have the ability to think practically, positively, compromise, communicate and address the risk. But even the mighty do slip i.e., emotionally stressed because of uncivilized workplace behavior. In this study we discussed about the profuse uncivilized behavior, how the professionals are handled those issues and get the control of their emotional balance. An online survey was administered and data were collected from 220 professionals like Teachers, Professors, Doctors, Managers, Lawyers, Bankers and so on. Our finding indicate that workplace incivility emerged as one of the significant factors in the relation between emotional intelligence and work-related outcomes. More specifically emotional-intelligence based intervention may represent the close alternative to intervention that targets workplace uncivilized behaviors in increasing the job satisfaction and organization commitment as well as decreasing the counterproductive work behavior.

**Keywords:** Uncivilized workplace behavior, Job Satisfaction, Performance, Emotional Intelligence, Impact

## **ENHANCING ORGANIZATIONAL WORK CULTURE THROUGH HUMAN VALUE SYSTEM**

R Satish, Research Scholar, DOMS, Periyar University, Salem  
K. Murugabhoopathy, Research Scholar, DOMS, Periyar University, Salem

### **ABSTRACT**

In today's competitive world, it is imperative for any organization to increase and maintain their efficiency consistently. The efficiency of any organization is determined by various factors which mainly include the organizational culture. Organizational Culture is sometimes misunderstood as the development process, but many times it demands for a complete abolition and development of new cultures. Developing an Organizational culture is a brief process which includes: process of identifying the existing system/culture, analyzing the organization's goals and objectives, checking the effectiveness of the existing culture in line with the goals and objectives and developing a corrective measure/ new road map for building a strong and efficient organizational Culture. Developing and maintaining an Organizational Culture lies mainly in the hands of the workforce. Despite this, human values are mostly ignored when discussing about the organizational culture. This thesis will mainly analyze the importance and impact of



Sakthi Institute of Information and Management Studies, Pollachi, Tamilnadu  
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# Contemporary Approaches to Empower Smart Future Through Digitalization

Dr. K. VEERAKUMAR & Mr. M. SELVA KUMAR



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### Conference Objective

Conference aims to provide development culture among faculties, research scholars and students at different disciplines in the field of contemporary approaches in current era

### Date of Conference

24<sup>th</sup> & 25<sup>th</sup> November, 2022



13.	A Study on the Sustainable Environment of Corporates by using Green HRM Practices <b>Dr.A.Giri Prakash</b>	98-108
14.	Open Educational Resources (OER) in the Education Environment: Opportunities and Challenges <b>Dr.A.K.Kavitha</b>	109-116
15.	Implementation of Green Human Resources Management Practices in Private Companies – Opportunities And Barriers <b>Kavitha.M</b>	117-124
16.	A Study On The Authority Of Green HR Practices On Employee Fulfillment Among Selected Scheduled Banks <b>Dr.R.Thiyagu &amp; Dr.S.Shanmugapriya</b>	125-132
17.	Impact of Digital Transformation on Corporate Social Responsibility (CSR) Practices <b>R.Jayaravitha</b>	133-137
18.	Design and Application of $\bar{X}$ And $\bar{S}$ Fuzzycontrol Charts for Monitoring Industrial Manufacturing Process <b>Dr. V. Nirmala &amp; Dr. R. Sharmila</b>	138-153

## IMPLEMENTATION OF GREEN HUMAN RESOURCES MANAGEMENT PRACTICES IN PRIVATE COMPANIES – OPPORTUNITIES AND BARRIERS

**Kavitha.M**

Assistant Professor,

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Chennai-106

### Abstract:

Business leaders all over the world have shown a strong desire to implement green initiatives in order to support sustainable practices and boost employee commitment to the issue of environmental sustainability. As a result, the modern HR managers have been tasked with adopting green HR policies in the organisations as well as playing a crucial part in putting the organisation's entire environmental strategy into practice. This paper aims at the implementation of Green Human Resources Management Practices and their barriers to implementation in Private companies in Chennai Region both Manufacturing and Service organisations. Convenience sampling method was adopted to get the primary data. Questionnaires were collected among the employees on Implementation of Green HRM practices and their barriers to implementation. The top impediment that are being faced during the implementation of green human resource management practices includes "High implementation cost", "Resistance of Staff to adopt green human resource management practices" and "Lack of Prior planning to implement green human resource management practices".

Keywords : Green Human Resources Management, Implementation of Green Human Resources Management Practices.

### Introduction:

Nowadays, there is a growing interest in environmental issues in almost every country and sector of society, regardless of politics, the general public, or business. Countries around the world are now very concerned about the severe negative effects of environmental pollution caused by numerous chemicals and industrial waste. Therefore, in order to reduce the harmful effects of environmental pollution on society and on humanity as a whole, governments and non-governmental organisations

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(NGOs) are now developing and promoting policies and regulations to slow down and, to some extent, stop the destruction of natural resources.

Green human resource management is a philosophy that encourages organisations to incorporate or modify existing strategies in their organisation through policies that are more focused on sustainable growth. Green HRM is defined as a more environmentally friendly approach to human resource management policies. Human resource management policy begins with the option, recruitment, training, and advancement of workers and continues through retirement and compensation policies. The goal of implementing this shift in human resource management is to instill in employees the habit of making the best use of society's resources. Digital India makes a significant contribution to the organization's green initiatives. Businesses have already opted for a paperless economy in order to achieve the goals of digital India.

### **Research Gap**

Today, the term "Green Human Resource Management" has become a buzzword. Globally, there is a significant need for environmental management drive. Human Resources are an important component of the system that can contribute significantly to achieving sustainability. To effectively implement environmental management, proactive environmental approaches are required. Green HRM has already practicing in western countries. But in India it is in implementing stage only. So, there is research gap to study about Green HRM in Indian Context.

### **Objectives of the Research**

- To determine the implementation level of Green HRM practices in private organization in Chennai
- To find out the barriers in implementing Green Human Resource Management.

### **Scope of the Study**

A good human resources policy would encourage employees to be more productive while also enjoying various aspects of their job. As a result, the green environment is becoming a critical human resource issue in the private sector. Effective human resource policies and practices are required to provide a green HR environment for private company employees. The current research study was designed and planned to determine the significance of green HR management and green HR practices in order to promote environmental issues by adopting them.

This study would also assist management and employees in seriously considering the harm that severe pollution would cause to the environment, society, and its own people. The employees and members of society will become more aware of how to use natural resources wisely. Green HR initiatives would also assist the organisation in identifying alternative ways to reduce costs and paper usage by implementing digital processes. This would result in substantial cost and energy savings.

## Research Methodology

The Study is primarily based upon both Primary data and secondary Data. Online Questionnaires were used for collecting the data and in order to get more reliable and accurate responses. The questionnaire will circulated among the private employees consists of Manufacturing and Services Organisation. Convenience sampling is adopted to collect the data. The secondary data were collected through literature related to the topic from various sources like Journals, Websites and other available sources.

## Review of Literature& Theoretical Framework

### A. Review of Literature

Mukherjee, S. et al (2020) Since from the last few decades, many environmental issues are arising, the government of various nations has directed the industries and organizations to focus on an environmental management program along with their business operations. Mehta, K., and Chugan, P. K (2015) .Environmental sustainability is generating increased concern among business executives, governments, consumers, and management scholars. Amidst the stakeholders' struggle and the challenges and opportunities from environmental concerns, HRM function joins the ongoing discussions and debates. The business domain sees the genesis of Green HRM with the expanding role of the HRM function in pursuit of environmentally sustainable business. Zubair, D. S., and Khan, M. (2019) To ensure that this world remains a good place to live in, environment friendly policies should be adopted. Organizations may be public or private and can contribute significantly in ensuring a greener environment if they integrate different basic environment friendly initiatives into their operations.

Gunasekare, D. U (2016) Green initiatives within the HRM perspectives proactively support this mission and further create a knowledge gap pertaining to this area for the scholars to promote consciousness towards the environment. The purpose of this study is to explore the Green Human Resource Management Practices (GHRMP), from the light of existing theoretical and empirical research done by the scholars in this field. Renwick, D et al (2012) The findings of the review suggest that understanding of how GHRM practices influence employee motivation to become involved in environmental activities lags behind that of how organizations develop Green abilities and provide employees with opportunities to be involved in EM organizational efforts. Organizations are not using the full range of GHRM practices, and this may limit their effectiveness in efforts to improve EM. Suharti, L., & Sugiarto, A.(2020) In particular, individual employees had better green and non-green work outcomes. Meanwhile, at the organizational level, the benefits of

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the implementation of Green HRM were the creation of environmentally friendly organizational culture and work climate, the increased efficiency of various resources, the formation of a positive corporate image and increased economic and eco-performance. It is expected that this study contributes to extend the literature on the implementation of Green HRM and its benefits to companies.

## **B. Ways to Implement Green Human Resources Management Practices in an Organisation**

- Online advertisement and Invitation of Application Online.
  - Green Recruitment and Selection
  - Green Orientation
  - Green Performance and Evaluation
  - Green Learning and Development
  - Maintenance of Employee Relations
  - Green Employee Discipline Management
  - Green Health and Safety Management
  - Green Leadership Management
  - Green Compensation and Rewards.
1. **Green Recruitment and Selection:** Green Recruitment and Selection includes attraction and retention of high-quality staff that should be environmentally aware. As only pro-environmental employees can incorporate green human resource management practices effectively.
  2. **Green Training and Development:** Green talent attraction and retention is meaningful only if green training is provided to green talents for activities of environmental protection. Green training includes imparting skills among human resource to cope up with the challenges faced during the implementation of Green human resource management practice into the organization.
  3. **Green Performance Management and Appraisal:** This practice comes under motivational aspect of AMO Framework. Positive as well as negative measures are being used to motivate employees to enable them to use environmental practices. Performance indicators are being set at departmental level to effectively measuring environmental goals.
  4. **Green Pay and Reward:** This function has high capacity to motivate employees to follow environmental management practices into the organization. Financial as well as non-financial rewards can be provided to employees to ensure their effective involvement in environmental management activities. Sometimes, this practice will motivate employees to so much higher

level that make them to use green practices voluntary at organizational as well as their individual level.

5. **Green Involvement:** Successful results require high level of participation of employees in environmental management activities. In other words, they must participate in environmental management rather than restricting its implementation. Only then, it can result in better results and good image of the organization.

**C. Barriers in implementing Green human resource management:** Numerous barriers are being faced by the organizations in implementing green human resource management practices. The barriers that are being faced by the companies includes Lack of Comprehensive conception of the Green Human Resource Management Concept (Likhitkar & Verma, 2017), Difficulty in changing attitude of workers, lack of skilled and qualified workers (Cheema et al., 2015), High initial cost of Implementation and requirement of long time (Hosain & Rahman, 2016), Difficulty arises in recruiting green employees, problem arises in evaluation of environmental performance (Deshwal, 2015).

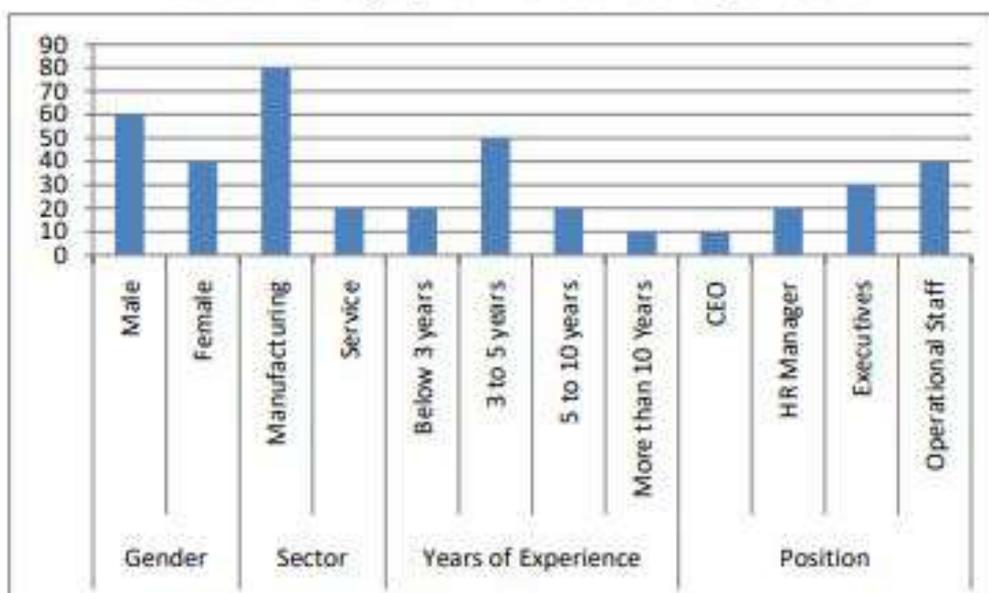
#### **Data Analysis and Interpretation**

##### **A) Demographic Profile of the Respondents**

From the following table 60% of the respondents are male and 40% of the respondents are female. 80% are manufacturing sector whereas 20% are from service Sector. Experience wise data classifications 20% of the employees are having below 3 years of experience and 20% of the employees are having more than 10 years of experience. 10% of the respondents were CEO and 40% of the respondents to operational Staff Category.

**Table 1: Demographic Profile of the Respondents**

Particulars	Category	Frequency	Percentage
Gender	Male	60	60%
	Female	40	40%
Sector	Manufacturing	80	80%
	Service	20	20%
Years of Experience	Below 3 years	20	20%
	3 to 5 years	50	50%
	5 to 10 years	20	20%
	More than 10 Years	10	10%
Position	CEO	10	10%
	HR Manager	20	20%
	Executives	30	30%
	Operational Staff	40	40%

**Chart 1: Demographic Profile of the Respondents****B) Implementation Level of Green Human Resources Management Practices**

With regards to implementation Level of Green Human Resources Management Practices only 25% of the organisation has following Green HRM practices out of which 10% are from manufacturing Sector and 15% are service sectors.

**Table 2: Implementation Level of Green Human Resources Management Practices**

Sector	Implementation			Total
	Implemented	Planned to Implement within a Year	Not Yet Planned	
Manufacturing	10	13	2	25
Services	15	7	3	25
Total	25	20	05	50

**C) Barriers faced by the organisations to implement Green Human Resources Management practices.**

The respondents were asked that whether they these factors as barriers and to what extent. The respondents the following factors on 5 point rating scale ranging from 1 to 5 (Disagree to Agree). The following table represents the mean ranking and the rating of the barriers. The most important barrier was found as High cost of implementation and least factor is Difficulty in Changing attitude and Behaviour.

**Table 3: Barriers to Implementation of Green HRM Practices.**

Factors	Percentage	Mean	Standard	Rank
---------	------------	------	----------	------

			Deviation	
Difficulty in Changing attitude and Behaviour	63.8	8 3.569	1.1765	6
Lack of Awareness Regarding Green Human Resources Management	65.42	3.7931	1.25041	5
Lack of Prior planning to implement green human resource management practices	67.3	3.569	1.148	4
Lack of full support from Top Management to adopt green practices	72.4	3.7414	1.23911	3
High Cost of Implementation	76.1	3.7414	1.25041	1
Resistance of Staff to adopt green human resource management practices	74.2	3.8621	1.04944	2

### Conclusion:

With reference to first objective of the study, Green Human Resources Management practices are implemented more in Service sector when compare to Manufacturing Sector. The barriers to the implementation of the Green Human Resources Management High cost on Implementation of Green Human Resources Management practices. In order to overcome the barriers of implementation the organisation need to allocate budget for implementing Green Human Resources Management for Sustainable growth and eco-friendly HR practices and also Proper infrastructure should be provided to the employees to enable them to follow Green Human Resources Management practices.

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**AWARENESS AND IMPACT OF GST AMONG SMALL SCALE  
INDUSTRIES IN AMBATTUR INDUSTRIAL ESTATE, CHENNAI.**

**Kavitha.M** ,Assistant Professor, Department of Business Administration , Dwaraka Doss  
Goverdhan.Doss Vaishnav College. Chennai-106.

**Abstract**

From 1 July 2017, a comprehensive dual Goods and Services Tax (GST) replaced the previous multiple indirect tax structure. It is India's most significant tax reform. The primary goal of instituting GST in India is to eliminate the variety of indirect taxes, the cascading impact, and the tax burden, which can only be accomplished by levying GST. As the name implies, the GST can be collected on both goods and services. GST is a tax that must be paid for the provision of goods and services. GST is payable by anybody who presents or provides goods and services. This paper highlights the impact of GST on Small Scale Industries. Small scale industries (SSI) are a key economic driver in India, generating almost 40% of the country's industrial production, 42% of exports, and 65% of job possibilities. As a result, an effort was undertaken to reduce the impact of GST adoption on SSIs. This study summarizes the benefits of GST on SSIs as well as the issues that SSIs face as a result of GST implementation.

**Key Words**

GST, Small Scale Industries,

**Introduction**

GOODS AND SERVICES TAX (GST) is a single tax to be levied on the supply of goods and services. It will be borne by each part of the goods and services supply chain, right from the manufacturer to the consumer. Taxes paid on the purchase of goods or services (called Input Tax), whether for resale or for producing/ manufacturing a new item, will be utilised as credits to offset the tax to be paid on sale of the said goods. This process will be repeated as many times as the said goods change hands in the original form or in a new form.

**MEANING:** GST is known as the Goods and Services Tax. It is an indirect tax which has replaced many indirect taxes in India such as the excise duty, VAT, services tax, etc. The Goods and Service Tax Act was passed in the Parliament on 29th March 2017 and came into effect on 1st July 2017. Goods and Services Tax Law in India is a comprehensive, multi-stage, destination-based tax that is levied on every value addition. GST is a single domestic indirect tax law for the entire country.

**VALUEBASEDADDITION:**



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### COMPONENTS of GST:

- **CGST:** It is the tax collected by the Central Government on an intra-state sale (e.g., a transaction happening within Maharashtra)
- **SGST:** It is the tax collected by the state government on an intra-state sale (e.g., a transaction happening within Maharashtra)
- **IGST:** It is a tax collected by the Central Government for an inter-state sale (e.g., Maharashtra to Tamil Nadu)

### **Taxes are merged with GST**

The new GST will subsume or merge within itself the following Central, and State taxes  
Central taxes: Central Excise Duty (CENVAT), Service Tax, Additional Excise Duties, Additional Customs Duty or Countervailing Duty (CVD), Special Additional Duty (SAD) on Customs, all Surcharges and Cess, Central Sales Tax (CST). State Taxes: State VAT or Sales Tax, Central Sales Tax (CST), Luxury Tax, Entry Tax (all forms), Entertainment and Amusement Tax (except when levied by the local bodies), Taxes on advertisements, Purchase Tax, Taxes on lottery, betting and gambling, State Surcharges and Cess so far as they are related to supply of goods and services.

### **Taxes will still remain outside the purview of GST:**

The following Taxes will continue to be levied as before: Central Taxes (outside GST): Basic Customs Duty, Duties on imports such as Anti-dumping Duty, Safeguard Duty, etc. or Export Duty. State Taxes (outside GST): Property Tax, Road and Passenger Tax, Toll Tax, Stamp Duty, Electricity Duty, Tax on Entertainment and Amusement levied and collected by local bodies such as Panchayats/ Municipality/ Regional or District councils.

This study analyses the awareness and impact of GST on Small scale Industries (SSI) at Ambattur Industrial Estate Chennai. This study is useful in understanding how GST would broaden the taxable base. Previously, any firm with a turnover of Rs 1.5 crore or less was exempt from excise duty laws. However, with the amalgamation of all State and Central level taxes under GST, any manufacturer with a turnover of Rs 20 lakhs (others) /10 lakhs (Special category states) or more would be required to comply with GST and its processes. All GST compliance procedures — Registration, Payments, Refunds, and Returns — will now be carried out strictly through online portals, eliminating the need for SMEs to interact with department officers to carry out these compliances, which are currently considered a headache in the current tax regime.

### **Statement of the Problem**

Small Scale Industries (SSIs) are a key factor in the Indian economy, generating for about 40% of the country's industrial production, 42% of exports, and 65% of job opportunities. However, the Government of India introduced GST, which was a significant reform in the indirect taxes structure. From then on, considerable developments and problems emerged in the operation of SSIs. As a result, this study focused on how GST caused problems and generated prospects for the SSIs industry in India.

### **Objectives of the Study**

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- Identify the awareness level of GST among Small Scale Industries in Ambattur Industrial Estate, Chennai.
- To know about the challenges faced by small-scale Industries after GST implementation.
- To assess the impact of GST among Small Scale Industries in Ambattur Industrial Estate, Chennai.

### Review of Literature

Banujam K.V. (1998) this study enabled, "Poverty Improvement through Rural Development" recommended that suitable knowledge should be industrialized to promote the rustic small industries. Gholam Ali (1999) this study enabled, "Help makes small scale industries feasible" exposed that big and small productions have their share in the growth of a state and the wealth of its crowds.

### Research Methodology

#### Sampling:

This study is based on primary data collected with the help of structured questionnaire. Convenience sampling method has been adopted for the selection of sample.

#### Sample Size:

Data has been collected from 64 respondents. All the respondents were Small Scale Industries(SSIs) are mostly into manufacturing of very diverse products like machine tools components, industrial chemicals, automobile components etc., the area of study Ambattur Industrial Estate which is the heart of Industrial Activities in Chennai city.

#### Tools Used

- Simple percentage method

### Analysis and Interpretation PART-A

Table 1 Demographic Characteristics

Factor	No. of Respondents	Frequency in Percentage
<b>Gender</b>		
Male	54	84.375%
Female	10	15.625%
<b>Age of the Firm</b>		
Less than 10 years	15	23.43%
Between 10 years to 20 years	25	39.07%
More than 20 years	24	37.5%
<b>Total No. Of Employees</b>		
less than 10 employees	20	31.25%
11-30 employees	18	28.125%
More than 30 employees	26	40.625%
<b>Turnover</b>		

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20 lakhs	22	34.7%
21-40 lakhs	36	56%
41-50 lakhs	3	4%
Above 50 lakhs	4	5.3%

**Inference:**

From the above table it was found that 84% of respondents are male and 16% are female. Around 23.43% of the firms have the age of less than 10 years, 39.07% has Between 10 years to 20 years of age and 37.5% of firm has More than 20 years of age. About 31.25% of the firm has less than 10 employees, 28.125% has 11-30 employees and 40.625% More than 30 employees. Around 34.7% of the firms have 20 lakhs of Turnover, 56% of the firms have 21-40 lakhs turnover and 5.3% of the firms have more than 50 lakhs turnover.

**PART-B**

**Table 2 – Awareness about GST**

Factor	No. of Respondents	Frequency in Percentage
<b>GST awareness</b>		
Yes	64	100%
No	0	0%
<b>Firm registered with GST</b>		
Yes	64	100%
No	0	0%
<b>Knowledge about GST online portal</b>		
Yes	64	100%
No	0	0%
<b>Available legislation in relation to propose GST is satisfying</b>		
Yes- Satisfactory	12	18%
No-Needs more Clarity	52	82%
<b>Current Software equipped is capable enough to handle the proposed GST</b>		
Yes	35	55%
No	29	45%
<b>Need Assistance in Filing GST</b>		
Required	39	60%
Not Required	25	40%

**Inference**

From the above table it is found that all the firms have GST awareness, all the firms have registered with GST and they have knowledge about GST online portal. 82% of the firms needs

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clarity about Available legislation in relation to propose GST is satisfying, Almost 55% of the firm has Current Software equipped is capable enough to handle the proposed GST and 60% of the firm needs assistance in Filing GST.

**Part-C**

**Table.3 Impact of GST in Business**

Turnover Status	No. of Respondents	Frequency in Percentage
Increased	8	12%
Decreased	41	64%
No Change	15	24%

**Inference**

From the above table it is found that 64% of the firm has decreased in their turnover, 24% of the respondents has no change in turnover after implementation of GST.

**Findings**

- Majority of the firms has awareness about GST.
- Majority of the firms needs assistance for GST Filing.
- Most of the firms have a negative impact in terms of Turnover after implementation of GST.

**Suggestions**

- The firm needs to understand the Procedure of Filing GST.
- Government needs to take necessary steps to reduces the GST threshold to safeguard the Small Scale Industries (SSIs).

**Conclusion**

The entire GST system must be stabilised; confusions must be clarified so that industries may benefit from the advantages of GST more effectively. To attract industries, the Reverse Charge Mechanism and Composition Scheme must be reformed or revised. Furthermore, macroeconomic policy should be modified in order to improve the performance of small-scale industries. Thus the study is conducted and majority of the firms were well aware and the new ordinance of online filing has saved much of the time and reduced paperwork but requires more clarity as suggested in the study. GST council should continue with efforts to boost the Indian Economy.

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1<sup>st</sup>  
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*On Artificial Intelligence in E- Commerce*

**ICAIE - 2022**

7<sup>th</sup>  
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**2022**



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# *Proceedings of the*

## **First One Day Multi-Disciplinary International Conference on Artificial Intelligence in E-Commerce**

# **ICAIE - 2022**

**7<sup>th</sup> December 2022**



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## **Chief Patron's Message**

I am very much delighted to know that our college is organizing a **First One Day Multi-Disciplinary International Conference on Artificial Intelligence in E-Commerce on 7<sup>th</sup> December 2022.**

Success is no accident. It is Hard work, Perseverance, learning, studying, sacrifice and most of all, love of what you are doing or learning to do. I hope that this International Conference will serve as a platform for fruitful interaction among research scholars, scientists, academicians and students. This conference will bring in research ideas of various people from different countries in a single forum.

The presentation of innovative findings of the researchers is required for the growth of our society, particularly in research and development, since the researches play a pivotal role for the technology development and thereby ensuring improvement in the economical status of the country.

“Predicting the future isn't magic, it's Artificial Intelligence”. I hope that the proceedings of Conference will be a valuable resource in professional, research and academic activities. The takeaway for the participants would prove to be a great value-added in their lives and research career.

The passion and zeal of the organizing committee is praiseworthy. I congratulate the principal, vice-principal, convener and team members for their efforts towards organizing this first one day multi-disciplinary International conference.

**Hon'ble. Justice Shri.K. Venkataraman  
Former Judge – High Court, Madras  
Judge Administrator,  
R.B.Gothi Jain College for Women**

## Patron's Message



R.B.Gothi Jain College for Women, a prestigious college with towering dreams to be conquered, always strive towards success. I am very much happy to share that our college is organizing a **First One Day Multi-Disciplinary International Conference on Artificial Intelligence in E-Commerce**.

On behalf of the faculties, committee members and students, I would like to thank our Honourable Judge Administrator sir for giving an opportunity to conduct this first International Conference. I feel extremely grateful to our Honourable Judge Administrator Justice Shri.K.Venkataraman sir for his enormous support, guidance and compassion. It has not been an easy transition for any of us, but our Judge Administrator sir leadership and positive attitude have helped pull us through. Our Judge Administrator sir has fostered sense of support and appreciation that allows us as educators to improve our practice daily. The leadership, vision and hard work of our Judge Administrator sir make such a difference to ensure the learning and growth of both our students and faculties.

Knowledge is increased by sharing; not by saving. This International Conference provides the perfect platform and a forum for global knowledge sharing. It elicits the assorted ideas of research scholars, industrialists, academicians and students to accomplish the theme of the conference. I believe that this multidisciplinary conference will be finest opportunity for all from various disciplines to share and express their views. It is overwhelming to see the responses received for the Conference from the research community.

It is praiseworthy to share that this conference will also give opportunity to young researchers to make papers and presentations with their innovative idea.

“Technology can become the “wings” that will allow the educational world to fly farther and faster than even before – if we will allow it. The theme of the conference was aptly chosen keeping in conformance with the industry demands and proliferation in the fields of AI in E-Commerce. The power of Artificial Intelligence is so incredible; it will change society in some very deep ways. Keeping in cognizance of the importance of research, the conference committee of R.B.Gothi Jain College for Women took an initiative to provide platform for all to exchange of novel ideas amongst stalwarts in research.

“Education is not the learning of facts, But the training of the mind to Think”. I take this opportunity to welcome and thank the distinguished Chief Guest, Guest speakers, Subject experts for fruitful outcomes of the brainstorming deliberation. I also thank our Vice-principal Mrs.K.Geetha for her contribution in successfully managing this event.

The success of this Conference is solely on the dedication and efforts of conference committee members who started working on the preparations for almost 6 months in many ways to make this Conference become a reality. I congratulate the convenor, co-convenor, organizing committee members and student coordinators of the International Conference for their untiring efforts and I wish the conference a grand success.

**Dr.(Smt).M.Mahalakshmi**  
**Principal**

## Co-Patron's Message



Warm and Happy greetings to all. I am immensely happy that our R.B Gothi Jain College is **organizing One day multi-disciplinary International conference on Artificial Intelligence in E- Commerce on 7<sup>th</sup> December 2022** and is going to present a collection of various technical papers in the proceedings.

The Conference aims to bring different ideologies under one roof and provide opportunities to exchange ideas face to face, to establish research relations and to find global partners for future collaboration. The themes for this conference are indicative of relevant research areas to give the prospective authors innovative prepositions about the ambit of discussion. We have invited eminent dignitaries from different sectors to get a better understanding of these pillars of the Education System and the several strategies involved.

Under the able guidance of our Chief Patron, Honorable Judge – Administrator, Thiru.K.Venkataraman Sir, our College continues to march on the way of success with confidence. The sharp, clear sighted vision and precise decision making powers of our Judge – Administrator has benefited our college to stay competitive. Our respected Principal Dr.(Smt).M.Mahalakshmi, who is Patron of this conference is a dynamic personality, whose hard work and perseverance has made this Conference a successful one, more than 100 papers are presented in this Conference because of our Patron continuous efforts.

I express my sincere gratitude to our Chief Guest, Guest speakers and subject experts for their presence on this occasion. I also congratulate Organizing Committee members, students Co-ordinators, Participants from our college and other colleges for their efforts in organizing and participating in this conference and hope that this conference will act as a medium for all of us present here to ponder upon the topic of discussion, challenge us to strive towards it and inspire us at the same time.

**Smt. K. GEETHA**  
**Vice-Principal**

## **CONVENOR'S MESSAGE**

It is my privilege and honor to welcome you all to the “**One Day Multi-Disciplinary First International Conference on Artificial Intelligence in E-Commerce (ICAIE-2022)**”.

The main goal of organizing this conference is to share and enhance the knowledge of each and every individual in this fast-moving information period. We have given a good opportunity for those who have thirst in knowledge, the present technological developments and also share their ideas.

The conference aims to bridge the researchers working in academic and other professionals through research presentations and keynote addresses in current “Artificial Intelligence in E-commerce” trends.

I am grateful to the Honourable Judge Administrator Justice Shri.K.Venkataraman sir, Principal, Vice Principal and the Conference Committee members for extending their valuable time in organizing the program and all the authors, reviewers and others for their sparkling efforts and their belief in the excellence of “**ICAIE-2022**”.

I cordially invite all the enthusiasts to participate with full strength in this celebration event which can give immense exposure and global opportunities to all.

**Mrs. M. EZHILRANI**  
**CONVENOR**  
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**Science**

## **ACKNOWLEDGEMENT**

We would like to express our sincere gratitude to our Chief Patron **Hon'ble Justice K.Venkataraman** sir for the great support, guidance and encouragement in the smooth conduct of this First International conference.

We express our heartfelt thanks to our Principal and Patron **Dr.Smt.M.Mahalakshmi** mam who had stood by our side shouldering all the responsibilities and providing enormous efforts in making this conference an astounding Success.

We convey our sincere thanks to our vice principal and Co-Patron **Mrs.K.Geetha** mam for the valuable support and motivation.

Our Special thanks to the Guest Speaker and Subject Expert **Dr.M.Jawaharlal Nehru**, Assistant Professor & Head, Department of Computer Science, D.R.B.C.C.C.Hindu College, Pattabiram, **Dr. G.Ramesh** Assistant Professor, Department of Commerce, Sir Theagaraya College, Chennai, **Dr.M.Pushpa**, Assistant Professor, PG & Research, Department of Computer Science, Quaid E-Millath Government College for Women(Autonomous), Chennai-02 and our Guest speaker **Mr. Vinoth Thiruvengadam**, Airbus Test Strategy and Transformation Leader, France, so graciously accepted our invitation and enlightens the knowledge with their remarkable speech.

We have a great pleasure to thank our subject experts **Dr.G.Sundar**, Prof & Head, Department of Computer Application, Sindhi College and **Dr.S. Sujatha** Prof & Head, Department of Economics for their laudable and fantastic contribution in this conference.

We extend our special thanks to our advisory board members **DR.PREETHI ANANTHACHARI**, Assistant Professor, Endicott College of International Studies, AI & Big Data Department, Woosong University, South Korea, **DR.M.SUNDARARAJAN**, Assistant

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## TABLE OF CONTENTS

S.No	Title	Page No
1	A STUDY ON CUSTOMER PREFERENCES TOWARDS COUPON CODE PROMOTIONAL ACTIVITIES IN DIGITAL MARKETING. Dr.R.krishnaveni	1
2	BLOCK CHAIN TECHNOLOGY IN THE E-COMMERCE SECTOR-A SYSTEMATIC REVIEW S.Suganthi, Dr.T.SreeKala	4
3	TENSORPRODUCTONROUGH PATHGRAPH R.ArunaDevi, K.Anitha	7
4	ROUGHTENSOR PRODUCT ONROUGH CYCLEGRAPHS R.Nithya,K.Anitha	11
5	CYBER SECURITY ISSUES IN E-COMMERCE AND ITS IMPACT ON CUSTOMER SATISFACTION, GROWTH AND DEVELOPMENT IN INDIA Dr.SushmaS.Chawla	15
6	EMOTIONAL INTELLIGENCE AND ITS OUTCOMES AT WORK PLACE:A STUDY WITH SPECIAL REFERENCE TO AUTOMOBILE INDUSTRY Mrs.NarvekarAruna,NarendraKaushika, Dr.Y.LokeswaraChoudary	18
7	EFFECTS OF GENDER ON STUDENTS' ENTREPRENEURIAL INTENTIONS- A THEORY OF PLANNED BEHAVIOUR AMONG THE GOVERNMENT ARTS AND SCIENCE COLLEGE STUDENTS FROM CHENNAI, TAMILNADU PERSPECTIVE Mr.R.,Raj Kumar	26
8	REVOLUTIONARY EFFECT OF INTERNET OF THINGS (IOT) IN E-COMMERCE LOGISTICS INDUSTRY Ms.MutyalaSridurga	36
9	INTERNET OF THINGS:CHALLENGES AND FUTURE SCOPE Ms.T. Tamilarasi	39
10	TRENDS IN MOBILE COMMERCE Mrs. A.Devi	44
11	ENTREPRENEURIAL INTENTION AMONG THE FAMILY BUSINESS MEN TRADITIONAL WEAVING INDUSTRY: A STUDY AMONG THE SELECTED FAMILY BUSINESS MEN FROM TAMILNADU Dr.K.Gunasekhar	48
12	OPPORTUNITIES AND CHALLENGES OF INDIAN STOCK MARKETS-AN OVERVIEW Dr.S.Jayalakshmi, Dr.R.Suganthi.	54
13	SKIN CANCER CLASSIFICATION OF DERMOSCOPIIC IMAGE USING DEEP LEARNING AND CUCKOO SEARCH WITH 3DSHEARLET TRANSFORMATION METHOD K. Gowthame, K.Geetha	58
14	K <sub>4</sub> -MATRIXCORDIAL LABELING A.SudhaRani, S.SinduDevi	63

<b>15</b>	A STUDY ON CUSTOMER'S AWARENESS ON DIGITAL FINANCE IN PUBLIC AND PRIVATE SECTORS BANK WITH SPECIAL REFERENCE TO THIRUVALLUR DISTRICT Dr. H. Arul, Mrs. S. Ebilet	<b>70</b>
<b>16</b>	CYCLIC GROUP DIFFERENCE CARDINAL LABELING FOR JELLYFISH GRAPH. S.ChithraandH.A.Bhavithra	<b>75</b>
<b>17</b>	AN EXTENSIVE PROBE OF BONE MARROW TUMOR BASED ON MANUAL SCREENING SYSTEMS G. Deepa, Dr. Y. Kalpana	<b>78</b>
<b>18</b>	CHILD PESTER BEHAVIOUR IN SHOPPING MALLS: A STUDY WITH REFERENCE TO CHENNAI CITY. Dr.S.Gouthami	<b>83</b>
<b>19</b>	CURRENT SCENARIO IN E HRM –A LITERATURE REVIEW G.Hemalatha	<b>91</b>
<b>20</b>	CREDIT RISK MANAGEMENT PRACTICES OF PRIMARY SECTOR LENDING: A STUDY WITH SPECIAL REFERENCE TO SELECTED COMMERCIAL BANKS FROM TAMILNADU K.B.SanthaKumari	<b>93</b>
<b>21</b>	ONLINE SHOPPING – AN OVERVIEW Dr.V.Thiyagaraj, N.Kannadhasan	<b>99</b>
<b>22</b>	OCCUPATIONAL STRESS ON HIGHER SECONDARY SCHOOL TEACHER AT AVADI. D.K.Kowsalya and K.Kokila	<b>103</b>
<b>23</b>	ANALYSIS OF CHEST ACCELEROMETER DATA USING MACHINE LEARNING TECHNIQUES. M.P. Sukassini,T. Velmurugan	<b>108</b>
<b>24</b>	THE ROLE OF DIGITAL MARKETING AND SOCIAL MEDIA MARKETING IN CONSUMER BEHAVIOUR. Kavitha.M	<b>116</b>
<b>25</b>	A COMPARATIVE STUDY ON CLASSIFICATION OF STROKE USING DEEP LEARNING ALGORITHMS Matilda Shanthini	<b>120</b>
<b>26</b>	AN OVERVIEWOF SOCIAL MEDIA AND E-COMMERCE Mrs. S.Vidhiya	<b>124</b>
<b>27</b>	ANALYSIS OF ENTERPRISE RESOURCE PLANNING SYSTEM IMPLEMENTATION AMONG PRIVATE COMPANIES IN CHENNAI R Jayaravitha	<b>127</b>
<b>28</b>	ADVANCED IMAGE CONTRACT ENHANCEMENT FOR MEDICAL IMAGES USING HISTOGRAM EQUALIZATION WITH WALSH TRANSFORMATION R.Jothi, Dr. K. Jayanthi	<b>131</b>
<b>29</b>	INVENTROYOPTIMIZATION THROUGH MATHEMATICAL MODELS:A REVIEW ON BEHAVIOURAL APPROACH Dr.M.Ramesh	<b>140</b>
<b>30</b>	$D_3$ – DIVISOR CORDIAL LABELLING K.Rekha and H.A.Bhavithra	<b>146</b>
<b>31</b>	INVESTMENT PREFERENCES, PATTARNS, PRACTICES AND BANKINGHABITS OF RURAL CUSTOMERS:A STUDY AMONG THE SELECTED VILLAGES IN KANYAKUMARI DISTRICT	<b>153</b>

	Mrs.S.R.Kalaiarasi&Dr.A.Krishnan	
<b>32</b>	BEGINNINGS OF ECOCRITICISM: ITS IMPLICATIONS OF POSTMODERNITY Mrs. M. Selvasankari	<b>157</b>
<b>33</b>	ENERGY AWARE CLUSTERBASED ROUTING MECHANISMFOROPTIMALCLUSTER HEAD SELECTION USING INTEGRATED OPERATION K. Sreelatha, Dr.T.Sreekala	<b>160</b>
<b>34</b>	AN ASSESSMENT OF HOUSEWIVES ON DIGITAL LITERACY IN CHENNAI Dr S.Sujatha	<b>165</b>
<b>35</b>	INVENTORY PLANNING OPTIMIZATION THE CHALLENGES WITH SEGMENTING AND EXTRAPOLATING DEMAND. Y.LokeswaraChoudary	<b>170</b>
<b>36</b>	A STUDY ON TRANSPORTATION PROBLEM BY USING“INCESSANTALLOCATIONMETHOD”(IAM) D.Balaji	<b>175</b>
<b>37</b>	DETECTION OF SKIN DISEASES USING MACHINE LEARNING AND COMPUTER VISION TECHNIQUE. Dr.A.Thirumurthy Raja, K.DeepaSundari	<b>179</b>
<b>38</b>	ROLE OF MOBILE COMMERCE IN INDIA. Dr.L.N.Jayanthi	<b>182</b>
<b>39</b>	AN ANALYSIS OF THE EFFECTS OF DIGITAL MARKETING STRATEGIES ON THE INDIAN CITY OF CHENNAI. Mrs.N.Kalaivani	<b>185</b>
<b>40</b>	ADVANCED CLOUD COMPUTING AND GIS FOR AUTOMATIC SURVEILLANCE AND MONITORING SYSTEM IN WILDFIRE Ms. K. Vaishnavi, Ms. M. Pavithra	<b>189</b>
<b>41</b>	Z4DIFFERENCE CORDIAL LABELING FOR JAHANGIR GRAPH R.SenthamizhSelvi,H.A.Bhavithra	<b>195</b>
<b>42</b>	AI IN MODERN SOCIETY R.Krishnalakshmi, J Geetha	<b>199</b>
<b>43</b>	IMAGE CLASSIFICATION IN LUNG CT IMAGES USING DEEP CONVOLUTIONAL NEURAL NETWORKS N.Raghapriya , Y.Kalpana	<b>201</b>
<b>44</b>	A STUDY ON ETHICAL ISSUES IN DIGITAL MARKETING S. Jenitha	<b>211</b>
<b>45</b>	AN EMPIRICAL STUDY ON THE ROLE OF SELF-HELP GROUPS IN PROMOTING WOMEN ENTREPRENEURSHIP WITH A SPECIAL REFERENCE TO CHENNAI CITY S.Lakshmi, Dr.D.Muthusamy	<b>215</b>
<b>46</b>	OPTIMIZED REGION PROPOSAL NETWORK TO DIAGNOSIS AND DETECTPLANT DISEASES BASED ON IMAGE SEGMENTATION USING MACHINELEARNINGTECHNIQUES. P. Senthilraj, Dr. P.Parameswari	<b>219</b>
<b>47</b>	AWARENESS AND PERCEPTIONS ON CORPORATE SOCIAL RESPONSIBILITY OF FIRMS AMONG THE EMPLOYEES FROM AUTO SECTOR: A COMPREHENSIVE VIEW USING PERCENTAGE ANALYSIS M.Jayanthi, Dr.Y.LokeswaraChoudary	<b>226</b>

<b>48</b>	ROLE OF WORK LIFE BALANCE IN JOB PERFORMANCE OF WOMEN: EMPIRICAL EVIDENCE FROM IN UNORGANISED SECTOR. K.Humeera Banu , Y.LokeswaraChoudary	<b>236</b>
<b>49</b>	CUSTOMER AWARENESS, PREFERENCES, BEHAVIOUR, SHIPPING PATTERNS AND SATISFACTION TOWARDS PRIVATE LABEL BRANDS IN TAMILNADU: A DESCRIPTIVE ANALYSIS. Ms.Suwendy.S , Dr.Y.LokeswaraChoudary	<b>241</b>
<b>50</b>	SOCIALMEDIASINE-COMERCE K.Naresh,T.Suresh Patrick	<b>248</b>
<b>51</b>	IMPACT OF DIGITAL MARKETING ON CONSUMER PURCHASE BEHAVIOUR TOWARDS ORGANIC FOOD PRODUCTS IN CHENNAI CITY Mrs.B. Yamini Dr.A.Saraswathy	<b>252</b>
<b>52</b>	STREET VENDING AS AN OCCUPATION TO WOMEN IN CHENNAI: SOCIOECONOMIC IMPEDIMENTS AND THE WAY AHEAD. Mrs.M.Hemalatha ,Dr.S.Chinnammai	<b>259</b>
<b>53</b>	CUSTOMER RELATIONSHIP MANAGEMENT IN FINANCIAL SERVICES SECTOR- A REVIEW Mr.P.Petchiappan , Dr.M.Thanikaivel	<b>263</b>
<b>54</b>	DIGITAL MARKETING – A SCENARIO IN CURRENT ERA Mrs.V.Nagavalli	<b>270</b>
<b>55</b>	A STUDY ON ARTIFICIAL INTELLIGENCE AND CUSTOMERRELATIONSHIP MANAGEMENT Dr.R.Sowndharya	<b>274</b>
<b>56</b>	ANALYSIS OF EYE CARE SYSTEM USING ARTIFICIAL INTELLIGENCE J.Shobana , S.Brindha	<b>277</b>
<b>57</b>	A STUDY ON QUEUING THEORY TO ANALYSES VARIOUS ASPECTS OF CUSTOMERSWAITING TIME J Mannu	<b>280</b>
<b>58</b>	SIMPLEX OPTIMIZATION OF PRODUCTION MIX: A CASE OF BREAD PRODUCING INDUSTRIES. Mrs E Udayapriya	<b>282</b>
<b>59</b>	A STUDY ON USE OF THE DUALITY PRINCIPLE TO OPTIMIZATION SOLUTIONS MsK.Sevanthi	<b>289</b>
<b>60</b>	A STUDY ON SEQUENCING PROBLEMS IN OPERATIONS RESEARCH - THROUGH A METHOD n JOBS 2 MACHINES Mrs R Usharani	<b>295</b>
<b>61</b>	NCE AND IOT(AIOT) : AN OVERVIEW OF CURRENT AND FUTURE PROSPECTS Dr.S.Meenakshi	<b>298</b>
<b>62</b>	A STUDY OF ONLINE SHOPPING J.Stella Mary	<b>301</b>
<b>63</b>	LITERATURE REVIEW IN MAHABHARATA J.Kothandaraman	<b>304</b>
<b>64</b>	INSILICO, INVITRO STUDIES ON FICUS CARICA USING BOVINE SERUM DENATURATION FOR ANTI ARTHRITIC ACTIVITY G.Sangeetha, S.Bhavya, D.Bharathi	<b>306</b>

<b>65</b>	<b>D<sub>3</sub>CONTRAMEANPRIMELABELING</b> H.A.Bhavithra,S.SinduDevi	<b>311</b>
<b>66</b>	AI TECHNOLOGY AND ONLINE PURCHASE INTENTION: A PERCEIVED VALUE-BASED STRUCTURAL EQUATION MODEL V.Sandhiya,M.Devi	<b>320</b>
<b>67</b>	IMPACT OF ARTIFICIAL INTELLIGENCE IN BASIC STEPS OF ONLINE MARKETING Dr.M.Mahalakshmi, Mrs.B.Shylaja	<b>322</b>
<b>68</b>	THE VALUE OF COMMUNICATION TO BUILD THE TRUST BETWEEN CONSUMERS AND SUPPLIERS IN ONLINE SHOPPING Mrs. K. Geetha, R.B.Gothi.	<b>325</b>
<b>69</b>	MULTI-HOP CLUSTERING TECHNIQUES FOR MOBILE AD HOC NETWORKS M.Ezhilrani, Dr.R.Suganthi.	<b>327</b>
<b>70</b>	PREDICTION OF HEART DISEASE USING MACHINE LEARNING. M.Indhumathi, C.F.Radhi.	<b>331</b>
<b>71</b>	AN INTELLIGENT SYSTEM IN DETECTING OF DROWSINESS DURING DRIVING AND PREVENTION OF ACCIDENTS USING DEEP LEARNING ALGORITHMS K Dharani , A Vanathi	<b>335</b>
<b>72</b>	SUCCEEDING IN THE AI-DRIVEN WAREHOUSES IN A FAST – MOVING SUPPLY CHAIN NETWORK T Seetha Lakshmi	<b>339</b>
<b>73</b>	ANALYSIS AND EXPERIMENTAL INVESTIGATION OF WASTE HEAT RECOVERY SYSTEM USING SPIRAL FIN TYPE HEAT EXCHANGER. E.SamsonJebaraj,S JGrace Mangala Sweetlin	<b>342</b>
<b>74</b>	OVERVIEW OF AN EFFICIENT APRIORI ALGORITHM IN MARKET BASKET ANALYSIS USING DATA MINING Rm.Alagammai	<b>344</b>
<b>75</b>	FINGERPRINT RECOGNITION SYSTEM J. Usha	<b>347</b>
<b>76</b>	KEYWORD SEARCH IN DATA METHODOICAL STORAGE USING HASHING COGNITIVE Pavithra.V	<b>349</b>
<b>77</b>	BLUE BRAIN IN ARTIFICIAL INTELLIGENCE M.Ezhilrani, R.Deepa	<b>353</b>
<b>78</b>	BUSINESS ENVIRONMENT AND PUBLIC POLICY IN INDIA G.Pradeepa	<b>357</b>
<b>79</b>	A STUDY ON MOBILE COMMERCE IN INDIA Mrs.A.Mohana, Dr.V.Thiyagaraj	<b>361</b>
<b>80</b>	SOCIO-ECONOMIC CONDITION OF PRISONERS AND THEIR 'FAMILIES:AN EMPIRICAL STUDY ATTIRUNELVELI JAIL Mrs.B.Vepriya, Dr.S.BabyThangam	<b>363</b>
<b>81</b>	PERFORMANCE ASSESSMENT OF PHARMACETICAL SECTOR IN STOCK MARKET. Ms.K.Karpagambigai, Mr.BalachandarMohan	<b>370</b>

<b>82</b>	IMPACT OF THE EXTENDED MARKETING MIX ELEMENTS ON CUSTOMER SERVICE IN THE INSURANCE INDUSTRY IN THIRUVALLUR DISDRICT SelvamaryA, ArunaR	<b>374</b>
<b>83</b>	DIGITAL PAYMENTS A STUDY ON EVOLUTION OF DIGITAL PAYMENT IN POST-PANDEMIC – WITH SPECIAL REFERENCE TO GOOGLE PAY USERS A.Pooja	<b>383</b>
<b>84</b>	IMPACT OF ONLINE SHOPPING ON INDIAN ECONOMY Dr.E.B. Mary Raveena, Mrs. S. Valli	<b>389</b>
<b>85</b>	ELECTRONIC-HUMAN RESOURCE MANAGEMENT (E-HRM) G. Shanthi, R.Jaya Sharmila	<b>398</b>
<b>86</b>	CHALLENGES FACED BY TEACHERS DURING PANDEMIC Preethi Dwivedi	<b>401</b>
<b>87</b>	TYPES OF SAMPLING TECHNIQUE IN DATA ANALYTICS R. Jeyalakshmi ,K. Bhuvaneshwari	<b>404</b>
<b>88</b>	ARTIFICIAL INTELLIGENCE (AI) IN E-COMMERCE (B2B & B2C) T.Srimathy, S J Grace Mangala Sweetlin	<b>407</b>
<b>89</b>	A STUDY ON SUCCESS CRITERIA OF ENTREPRENEURSHIP Mrs. V.Varalakshmi	<b>411</b>
<b>90</b>	ENTERPRISERESEARCHPLANNING VasumathiK	<b>414</b>
<b>91</b>	FUTURE OF MOBILE COMMERCE: A FACTORS-BASED EXPLORATORY STUDY INFLUENCINGTHE INTENTIONOFMOBILE USERS'BEHAVIOR RR. Aruna, V .Yamini	<b>417</b>
<b>92</b>	DIGITAL IMAGE PROCESSING APPLICATIONS IN AGRICULTURE Jebaselvi.R	<b>422</b>
<b>93</b>	APPLICATION OF STATISTICS IN VARIOUS FIELDS Mrs.K.Bhuvaneshwari, Mrs.S.Mydhili	<b>425</b>
<b>94</b>	CAPITAL MARKET AND INVESTOR AWERENESS IN INDIA Dr.K.Saritha, Mrs.E.Suganthi	<b>427</b>
<b>95</b>	A STUDY ON CONSUMERS ATTITUDE TOWARDS ONLINE SHOPPING IN SIVAKASI G.Komagal, V.KousalyaDevi	<b>430</b>
<b>96</b>	A STUDY ON SCOPE OF SERVICE MARKETING R Jaya Sharmila, Ms.Dr.C.Karpagam	<b>438</b>
<b>97</b>	E-HRM-APPLICATION OF INFORMATION TECHNOLOGY IN HRPRACTICES Ms.K.Karpagambigai, Dr.R.Poornimarani	<b>439</b>
<b>98</b>	OBTAIN FABER POLYNOMIAL COEFFIECIENTS OF POLYLOGARTHIMIC BI-VALENT FUNCTIONS R.Deepa, M.Thirucheran	<b>445</b>

## **THE ROLE OF DIGITAL MARKETING AND SOCIAL MEDIA**

### **MARKETING IN CONSUMER BEHAVIOUR**

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#### **Abstract**

This paper reviews recently published research about consumers in digital and social media marketing settings. Five themes are identified: (i) consumer digital culture, (ii) Impact of Digital Environment (iii) Social Media Marketing (iv) Online Word of Mouth (v) mobile environments. The papers examines how consumers experience, influenced and are influenced by the digital environment they are in as part of their daily lives. Much remains to be understood, and existing knowledge tends to focus disproportionately on WOM, which is only part of the digital consumer experience. Several avenues for future research have been proposed to encourage researchers to consider a wider range of phenomena.

#### **Key Words:**

**Digital Marketing, Social Media Marketing, Online Word of Mouth.**

#### **Introduction**

With the use of web, Social media, mobile applications and different data communication technologies have become a part of consumer's daily activities. Peoples additionally pay longer on-line. People have begun to use social media to share their experiences. People exposed towards more and more digitally. this can be for a many purpose. People have tons of 'connections' on social media, thus info is consumed by many of us. This info becomes a supply of influence on customers and their shopping for behavior. As customers, people share product reviews, info a few service, recommendation on food or health, warnings concerning product, recommendations on victimization sure product, and far additional. Marketers have recognized to the present foundational shift by increasing their use of digital selling channels. Analysis studies have shown that several people consider the data and reviews on social media as a guide for designing their future purchases. Digital marketing has touched new heights with boom in sensible phones and tabs. This era has virtually everyone with a social media account and therefore the ones while not such associate degree account are actually looked down upon for business functions.

#### **Objectives of the Research**

- To Study about the role of Digital marketing and social media marketing in consumer behaviour.
- To understand how Digital marketing and social media marketing influences consumer behaviour to take purchase decision.

#### **Literature Review**

Digital and Social media marketing is the process of drawing attention to the brand through Digital and social media. Also, social media marketing is aimed at creating content that would attract the attention of users and encourage them to share it with their readers. Social media provide people with common interests with a virtual space to share and discuss ideas. According to Raacke and Bonds - Raacke, social networks allow users to create a community through constant communication. Long-term information sharing and growth contribute to the development of loyal social relationships

According to K.Burton, the amount of information published by the user on social networks is positively correlated with the number of subscribers the user has. It is also noted that in the online environment, people like to express themselves, share ideas, contribute, create and join communities of people to meet the needs of belonging, be socially connected or simply enjoy communicating with other like-minded people.

According to D. Falls, social media marketing is a type of internet marketing that is used in various social media to achieve the goals of marketing communication and branding. Social media marketing is mainly aimed at posting and sharing different types of content to achieve marketing goals. Social networks, on the other hand, allow consumers to interact, and they are a very effective Internet - a tool for information exchange between people. Social networks are the main type of social media. Social networks are platforms for communication and interaction that contribute to increasing trust between communities. According to Y. Akrimi, any website or online platform that allows users to share their opinions, views, content, and encourages interaction and community building can be classified as a social network. The most popular social networks are: Facebook, VKontakte, Instagram, YouTube, Twitter, Odnoklassniki, as well as messengers WhatsApp, Telegram. Social networks have significantly changed the way information is disseminated, making it a very easy process to share. It is also worth noting that the unique opportunities and tools of social media and their huge popularity influenced marketing and advertising.

According to W. G. Mangold, social media also influence consumer behavior: how they consume information as post-purchase behavior, such as post-purchase behavior, for example, writing reviews or expressing their dissatisfaction and dissatisfaction with the experience of using the product.

### **Research Themes**

The research is about role of Digital marketing and Social Media Marketing in consumer behaviour in recent time. The themes are i) Consumer Digital Culture ii) Impact of Digital Environment iii) Social Media Marketing iv) Online word of mouth (WOM) v) Mobile Environment and reviews.

#### **1. CONSUMER DIGITAL CULTURE**

The knowledge, beliefs, and practices of people interacting on digital networks that may recreate tangible-world cultures or create new strains of cultural thought and practice are referred to as digital culture. Consumer digital culture research takes a close look at the digital environments in which consumers find themselves. A key aspect of this work has understood how consumers' identities and self-concepts extend into digital worlds; Consumer digital culture research considers, quite deeply, the digital environments in which consumers are situated. A key aspect of this work has understood how consumers' identities and self-concepts extend into digital worlds, such as work by Belk. Belk extended his prior work on the "extended self" to incorporate the digital environments in which consumers now situate themselves, which is an important piece of theory development because it considers concepts such as the ability for consumers to have multiple selves due to possessing multiple online "personas." Belk also suggests many areas for future research. Other research under this theme looked at more specific phenomena. McQuarrie et al. focused on fashion blogging as a means of documenting the "megaphone effect," which is the ability for regular consumers to access large audiences through digital/social media. This is an important effect and they discussed how bloggers go about building audiences and accumulating social (or cultural) capital through demonstrations of "good taste." In a social media setting this essentially means that a blogger (or "influencer") makes recommendations that signal her expertise to others. This is in a specific setting, but has implications for understanding consumers' content-generation behaviours on social media more generally, since signaling positive personal attributes is likely a common motivation for posting certain things on sites like Facebook. Together, these articles make an important conceptual contribution around how we see consumers in a digital world, particularly by implying an expanded conception of what it is to be a consumer in today's digital world.

#### **2. IMPACT OF DIGITAL ENVIRONMENT**

A recurring theme in recent years has been how digital/social media environments influence consumer behaviour. The implications are either environment-integral (i.e., digital environments influence behaviour in those environments) or environment-incidental (i.e., digital environments influence behaviour in other, unrelated environments). It is enlightening to see how some informational and social characteristics of digital/social environments, such as being exposed to other consumers' opinions (e.g., reviews) or choices (e.g., bids in online auctions), or even just friends' lives via social media, can influence subsequent behaviours.

As consumers use mobile devices more frequently, consumer behaviour in mobile settings is becoming increasingly important. This is especially fascinating in the context of shopping. Scientists have studied how consumers react to mobile offers in physical stores to see how mobile coupons can change the way consumers shop. In an online store, customers concentrate on shopping on mobile devices (such as tablets) and, in particular, on how touching products (rather than clicking on them) can increase their sense

of belonging and endowment. This is an intriguing contribution because there has been little research on how consumers physically interact with mobile devices and how this affects decision-making. This is viewed as a mobile ad display to consumers of branded attitudes and purchasing intentions, which is very small and contains very little (if any) information. They discovered that while mobile media advertisements have no effect in many product categories, they do raise attitudes and intentions for utilitarian products with high levels of involvement.

### **3. SOCIAL MEDIA MARKETING**

The use of social media platforms and websites to promote a product or service is known as social media marketing. Although e-marketing and digital marketing remain dominant terms in academia, social media marketing is gaining popularity among practitioners and researchers. Most social media platforms include data analytics tools that allow businesses to track the progress, success, and engagement of advertising campaigns. Companies use social media marketing to reach out to a wide range of stakeholders, including current and potential customers, current and potential employees, journalists, bloggers, and the general public. Strategically, social media marketing entails managing a marketing campaign, governance, determining the scope (e.g., more active or passive use), and establishing a firm's desired social media "culture" and "tone."

Firms can use social media marketing to allow customers and Internet users to post user-generated content (e.g., online comments, product reviews, etc.), also known as "earned media," rather than marketer-prepared advertising copy.

### **4. ONLINE WORD OF MOUTH**

Word of mouth has long been regarded as one of the most powerful marketing tools, particularly in traditional marketing, where people relied on reviews from others with knowledge or experience about a particular product or service. Word of mouth is used in digital marketing in the form of expert and user reviews, ratings, testimonials, and so on. To make a decision about a specific product or service, they will conduct research on Google, review the sites, and read about the brand.

WOM is the most-represented topic in digital and social marketing research, which is understandable given consumers' apparent reliance on socially sourced online information. A number of sub-themes have recently been addressed. Consumers rely on social media for information. A number of subtopics have recently been addressed. The imagery language used in online surveys has had a positive impact on consumer attitudes and hedonic product selection.

When positive and negative WOM are mixed, the direct influence of positive and negative WOM on a purchase is increased. Another important topic that has recently been discussed is the distinction between WOM online and WOM offline. Based on a large set of data about the WOM brands online and offline settings, online WOM is defined by the social and functional characteristics of the brand, while offline WOM is defined by the emotional characteristics of the brand. Researchers discovered differences between WOM transmission on social media (e.g., Facebook) and offline (personal), indicating that consumers are less likely to transmit WOM on social media due to higher perceived social risk.

### **5. MOBILE ENVIRONMENTS**

As customers use mobile devices more frequently, consumer behaviour in mobile environments is becoming increasingly significant. This is especially intriguing in the context of shopping. In a field experiment, it was discovered that smartphone offers that require customers to stray from their intended shopping routes can increase unforeseen spending when conducted in an in-store purchasing environment with 8 actual stores. Brasel and Gips focused on mobile device buying, specifically how touching things (rather to clicking with a mouse) can improve emotions of psychological ownership and endowment, in the context of online purchase. This is an interesting contribution because there hasn't been much research on how consumers physically interact with mobile devices and how that affects how they make decisions, despite the fact that it's crucial as this piece demonstrated.. Work by Bart et al., unrelated to buying, examined how mobile display ads, which are tiny and carry little to no information, affect customers' brand opinions and purchase intentions. They discovered that while mobile display ads are ineffective for many product categories, they do improve attitudes and intentions for highly involved, utilitarian products (e.g., financial services).

### **Conclusion**

In conclusion, there has been a lot of recent activity in the consumer behavior/psychology literature about digital and social media marketing, with many significant contributions. Knowledge has been gained. To advance this literature, Especially given the fast-paced nature of digital settings, research aimed at broadening our understanding of key concepts phenomena, investigates novel phenomena, and develops Theories in areas where there is no established theoretical foundation will be developed be the most valuable.

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**Dr. V.R. PALANIVELU**

47	A Study On Investors Perception And Awareness Towards Impact Investing With Special Reference To Investors In The State Of Tamil Nadu Dr. K. Vijayakumar, Mrs. B. SumaiyaSherin	38
48	Innovative Services And Operational Mechanism Of Neo Banks In India Ajit Kumar B, Dr.Indu G. Krishnan	38
49	Modelling And Forecasting Of Stock Price Volatility Of Nifty 50 Companies Using Arch Model – An Analysis K. Kannan, Dr. S. Balamurugan	39
50	Operational Mechanism Of Repository Syatem (E- Insurance Account) In Insurance Industry Ajosh George, Ashish C Pius	40
51	Assessing Financial Literacy Levels Of Banking And It/Ites Employees Using Logistic Regression Dr.R.Vishal Kumar, Dr.P.Shanmugha Priya	41
52	Risk Management In Indian Financial Market Mrs.P.Revathi	41
53	A Study On Silicon Shortage And Its Impact On Global Economy Mr. S. Saravanan, Mr. M. Aadithyan	42
54	Influence Of Financial Inclusion On Financial Well-Being Of Low-Income Households In Chengalpattu District M. Stella & Dr. T. Ramachandran	43
55	A Study On The Working Conditions Of Construction Workers In Kozhikode District- Kerala Jisha.C.Chandran, Dr.K.Selvaraj	43
56	A Study On Problems And Challenges Of Fishermen In Thoothukudi Dr. B. Baranirani, Maria TherasSantrina. X	44
57	Job Satisfaction Among Lecturers With Relation To Certain Demographic Variables <i>Savitha K, J Venkatachalam</i>	45
58	A Study On The Influence Of Uncivilized Behavior At Work Place And Its Impact On The Performance Of Professionals Towards Discharging Their Services -With Special Reference To Chennai City Ms. K. Lakshmi, Dr. Rao Prashanth Jyoty, Ms. M. Mahalakshmi Priyadharshini	45
59	Enhancing Organizational Work Culture Through Human Value System <i>R Satish, K. Murugabhoopathy</i>	46
60	Developing And Sustaining Employee Engagement Practices And Its Impact On Employee Performance In Private Sector Banks During Pandemic Period R.Shruthi, Dr.J.Senthil Velmurugan	47

## **JOB SATISFACTION AMONG LECTURERS WITH RELATION TO CERTAIN DEMOGRAPHIC VARIABLES**

**Savitha K, PhD Research Scholar, Dept of Psychology, Periyar University, Salem 636011.**

**J Venkatachalam, Professor, Dept of Psychology, Periyar University, Salem 636011.**

### **ABSTRACT**

Academicians are crucial in providing the students with knowledge of education. Mostly, highly dedicated lecturers can achieve effective results by producing high-quality students who will contribute to their country in the future. This is only possible where lecturers can only be successfully retained in their jobs if they are happy. Job satisfaction contributes to superior performance and retention. Thus, the current study aims at exploring how age and marital status affect the dimensions of Job Satisfaction of lecturers. Data were collected from 164 lecturers, through purposive sampling method by online mode. Job satisfaction scale by Dr. Amar Singh and Dr. T.R. Sharma (1999) was included for measuring Job satisfaction dimensions. The results are taken and discussed accordingly. Hence there is a genuine need to keep lecturers satisfied with their jobs and careers. They will not only produce future leaders of high calibre, but they will also contribute to the development of any country by educating the next generation.

**Keywords:** Job Satisfaction, Lecturers, Age and Marital Status

## **A STUDY ON THE INFLUENCE OF UNCIVILIZED BEHAVIOR AT WORK PLACE AND ITS IMPACT ON THE PERFORMANCE OF PROFESSIONALS TOWARDS DISCHARGING THEIR SERVICES- WITH SPECIAL REFERENCE TO CHENNAI CITY**

Ms. K. Lakshmi, Assistant Professor, Department of BBA, Dwaraka Doss Goverdhan  
Doss Vaishnav College,

Dr. Rao Prashanth Jyoty, Assistant Professor, Department of BBA, Dwaraka Doss  
Goverdhan Doss Vaishnav College,

**Ms. M. Mahalakshmi Priyadharshini, Assistant Professor, Department of BBA, Dwaraka  
Doss Goverdhan Doss Vaishnav College,**

### **ABSTRACT**

The aim of the study is to define uncivilized behavior and cull out the impact of uncivilized workplace behavior in the performance of professionals those who have the

capability to prioritize, plan and apply strategies. Moreover, they have the ability to think practically, positively, compromise, communicate and address the risk. But even the mighty do slip i.e., emotionally stressed because of uncivilized workplace behavior. In this study we discussed about the profuse uncivilized behavior, how the professionals are handled those issues and get the control of their emotional balance. An online survey was administered and data were collected from 220 professionals like Teachers, Professors, Doctors, Managers, Lawyers, Bankers and so on. Our finding indicate that workplace incivility emerged as one of the significant factors in the relation between emotional intelligence and work-related outcomes. More specifically emotional-intelligence based intervention may represent the close alternative to intervention that targets workplace uncivilized behaviors in increasing the job satisfaction and organization commitment as well as decreasing the counterproductive work behavior.

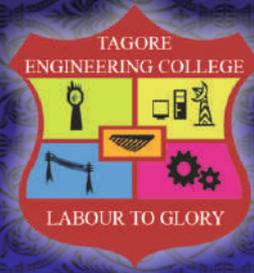
**Keywords:** Uncivilized workplace behavior, Job Satisfaction, Performance, Emotional Intelligence, Impact

## **ENHANCING ORGANIZATIONAL WORK CULTURE THROUGH HUMAN VALUE SYSTEM**

R Satish, Research Scholar, DOMS, Periyar University, Salem  
K. Murugabhoopathy, Research Scholar, DOMS, Periyar University, Salem

### **ABSTRACT**

In today's competitive world, it is imperative for any organization to increase and maintain their efficiency consistently. The efficiency of any organization is determined by various factors which mainly include the organizational culture. Organizational Culture is sometimes misunderstood as the development process, but many times it demands for a complete abolition and development of new cultures. Developing an Organizational culture is a brief process which includes: process of identifying the existing system/culture, analyzing the organization's goals and objectives, checking the effectiveness of the existing culture in line with the goals and objectives and developing a corrective measure/ new road map for building a strong and efficient organizational Culture. Developing and maintaining an Organizational Culture lies mainly in the hands of the workforce. Despite this, human values are mostly ignored when discussing about the organizational culture. This thesis will mainly analyze the importance and impact of



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Sl. No.	Title	Page No.
121.	<b>Investigating The Factors Influencing Emotional Intelligence with Employee Effectiveness of Working Women In Selected It Companies</b> <i>P. Jayamary A Jayamalar</i>	129
122.	<b>A Study on Recruiter's Opinion on Employee Advocacy in It Sector</b> <i>Dr. J.Krithika</i>	130
123.	<b>A Study on Green Human Resource Management</b> <i>E. Jeevanandhan, P. Joseph Kingsly Cruz &amp; Ms. Suba Durairaj</i>	131
124.	<b>The Study on Impact of People Analytics at Workplace</b> <i>Hari Haran.R, Surendhar.M &amp; Ms. Suba Durairaj</i>	132
125.	<b>A Conceptual Analysis on The Influence of Artificial Intelligence in Enhancing Business Performance Post Pandemic Crisis</b> <i>Mr. R.Robin Jebarson , Ms. M.S.Jency Rose , Ms.R.Swetha</i>	133
126.	<b>A Multidimensional Review of The Book "Quality Is Free"</b> <i>Nalini Rajesh, Dr. L Kanagalakshmi, Dr. S.Gayathri</i>	134
127.	<b>Recent Trends in Human Resource Management</b> <i>P. Thenmozhi &amp; Dr. M.Radhikaashree</i>	135
128.	<b>A Study on Work Life Balance and Its Influence on Employee Happiness with Reference to Hospitality Sector</b> <i>Sathish Kumar A, Archana V &amp; Jayashree V</i>	136
129.	<b>A Study on Effective Personal Selling Strategies on Firms's Sales Growth</b> <i>S. Swetha, R. Sneka &amp; Dr. P. Priyadarsini</i>	137
130.	<b>A Study on Measuring The Hrd Performance And Its Initiatives Towards Employees.</b> <i>Kameshvaran J , Vidhya Ganga S , Dr. Prithi S</i>	138
131.	<b>Analysis Of the Affiliate Marketing in India</b> <i>Mrs. Parul Gautam</i>	139
132.	<b>Growth Of Women Entrepreneurship in Recent Times</b> <i>Dr. M.Sai Durgalakshmi &amp; B.Jaganya,</i>	140
133.	<b>Performance Measurement and Management Control System Implementation Through Balance Score Card Methods: A Study In Private Universities, Chennai</b> <i>V.Nalini &amp; Dr.Radhikaashree,</i>	141
134.	<b>A Study Of The Impact Of Profitability On Real Estate Company Stock Prices (2018–2022) With Moderating Variables Such Debt Equity Ratio, Earnings Per Share, And Price Earnings Ratio</b> <i>S. Rajeswari &amp; Dr. D. Anitha Kumari</i>	142
135.	<b>Job Satisfaction of Employees In Bahwan Cyber Tek</b> <i>Ms. M Susmithaa,</i>	143
136.	<b>Cross Culture: The Relationship Between Teachers / Student in Campus Climate</b> <i>Ms. N.M.Sneha, A. Mouniya Gandhi &amp; J.Swathine,</i>	144
137.	<b>Impact Of Artificial Intelligence in Sales Forecasting</b> <i>Ramprasad S, Arun U, Vignesh R, Dr. S. Prithi,</i>	145
138.	<b>Applications Of Artificial Intelligence in Finance</b> <i>Livitha. S, Tulasi. Lalitha Kumari &amp; Dr. T. Mangaiyakarasi</i>	146

## **A STUDY OF THE IMPACT OF PROFITABILITY ON REAL ESTATE COMPANY STOCK PRICES (2018–2022) WITH MODERATING VARIABLES SUCH DEBT EQUITY RATIO, EARNINGS PER SHARE, AND PRICE EARNINGS RATIO**

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Indian Real Estate market has regained a significant recovery in spite of growing construction costs and increasing in the repo rate. After the pandemic lockdown, real estate market in Tier I, II, III Cities has increased the sales. The study has focused on the impact of Profitability on stock price with moderating variables such as Debt equity ratio, Earnings Per Share and Price to Earnings Ratio of top performing Real Estate companies on the Indian Stock Exchange for the 2018 - 2022 Period. The Researcher has used descriptive quantitative research. The nature of this research is due and effect/casual. The sample is top 10 Performing companies in Real Estate. Profitability has a partial effect on company value in real estate company on Indian Equity market. Debt to equity ratio, Earnings Per share & Price to Earnings ratio is contribute for the increase in the stock price. The research has focused on the limited variable and companies in the industry. This research is expected to benefit for increase the share price of the company, determine the financial performance factors including Debt Equity ratio, Earnings per share and Price Earnings Ratio. This study's methodology is cause-and-effect. The top 10 performing real estate companies are shown below. For real estate companies listed on the Indian equity market, profitability has a limited impact on corporate value. Earnings per share, price-to-earnings ratio, and debt-to-equity ratio all help drive up stock prices. The study is only focused on a select few variables and firms in the Indian equity market for the years 2018 to 2022. It is anticipated that this research will help the company's stock price rise and identify financial performance indicators, including the debt-to-equity ratio, earnings per share, and price-earnings ratio.

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I strongly believe that conference will result in concrete output in support of its topics. hope all the participants will enjoy this academic fest.

I extend my greetings and best wishes to the organizer and the participants and also wishes the conference all success.

Best Wishes

Dr. C. Murugesan  
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Best Wishes  
Dr. M. Sakthivelmurugan

## Index

No	Author(s)	Title	Page No
1.	<b>Dr. M. SAKTHIVEL MURUGAN Dr. S. GANAPATHY Dr. T. SUJATHA</b>	<b>THE RESEARCH STUDY ON CORPORATE GOVERNANCE SIGNIFICANCE OF INDEPENDENT DIRECTORS IN INDIAN CORPORATE SECTOR</b>	<b>1</b>
2.	<b>Dr. S. SANKAR</b>	<b>MARKET FOR MODERN HUMAN BEINGS</b>	<b>4</b>
3.	<b>CHETAN B S</b>	<b>AN ANALYSIS ON CLOUD COMPUTING</b>	<b>12</b>
4.	<b>Dr. G. PURUSHOTHAMAN</b>	<b>“A STUDY ON INFLUENCE OF ORGANISATIONAL CULTURE IN Mphasis IT”</b>	<b>18</b>
5.	<b>Dr. V. DHEENADHAYALAN PRAVEEN.C</b>	<b>IMPACT OF DEMOGRAPHIC VARIABLES ON CUSTOMER PERCEPTION TOWARDS GREEN PRODUCTS WITH REFERENCE TO ARAKKONAM TALUK</b>	<b>27</b>
6.	<b>HAYA FAYAZ</b>	<b>THE CONNECTION BETWEEN BIRTH CONTROL AND ECONOMIC EFFECTIVENESS</b>	<b>36</b>
7.	<b>Dr.A.SARANYA Dr. T. R. NISHA DAYANA</b>	<b>A SURVEY ON SECURITY AND PRIVACY ISSUES IN INTERNET-OF-THINGS</b>	<b>41</b>
8.	<b>Dr.P. SATHEESH BABU Dr.J.UMA DEVI</b>	<b>A STUDY ON CUSTOMER ATTITUDE TOWARDS E- BANKING SERVICES AND THEIR SATISFACTION IN CHENNAI DISTRICT</b>	<b>51</b>
9.	<b>Dr. V. VICTOR SOLOMON Dr. RENUKA DEVI SV</b>	<b>A STUDY ON HRM PRACTICES AND ITS IMPACT ON JOB SATISFACTION AND ORGANIZATION PERFORMANCE IN BPO SECTOR, CHENNAI</b>	<b>62</b>
10.	<b>MR. MD. MUBARIZ AAFAQUE.K</b>	<b>A STUDY ON CONSUMER ATTITUDE AND THEIR SATISFACTION TOWARDS AMAZON WITH SPECIAL REFERENCE TO VELLORE DISTRICT</b>	<b>70</b>
11.	<b>Dr. MELBHA D</b>	<b>AN INVESTIGATION INTO THE IMPACT OF DEMOGRAPHIC FACTORS ON ONLINE SHOPPERS’ TO CHANGE BUYING HABITS WITH A FOCUS ON THIRUVANANTHAPURAM.</b>	<b>78</b>

12.	<b>GOVIND D NAIR</b>	<b>A STUDY ON THE IMPLEMENTATION OF ARTIFICIAL INTELLIGENCE FOR CUSTOMER RELATIONSHIP MANAGEMENT</b>	<b>91</b>
13.	<b>SHILPA. R</b> <b>Dr. RAKESH H.M</b>	<b>GREEN ACCOUNTING PRACTICES IN THE MANUFACTURING ORGANIZATION: A CASE STUDY OF HINDUSTAN UNILEVER LTD., MYSORE</b>	<b>100</b>
14.	<b>Dr. VEENA K.P</b> <b>Dr. SHILPA D</b>	<b>EMPIRICAL INVESTIGATION OF GUERRILLA MARKETING PRACTICES: A STUDY WITH SPECIAL REFERENCE TO CUSTOMERS OF MYSORE CITY</b>	<b>111</b>
15.	<b>Dr. G. KALPANA</b> <b>Prof. J. POOVARAGHAVAN</b>	<b>A STUDY ON CUSTOMER SATISFACTION AND PREFERENCE TOWARDS MAMAEARTH BRAND PRODUCTS</b>	<b>120</b>
16.	<b>Smt. PADMAVATHY. P.P.</b> <b>Dr.G.KARUNANITHI.</b>	<b>“A STUDY ON TALENT MANAGEMENT; WITH SPECIAL REFERENCE TO HOTEL INDUSTRIES IN MYSORE DISTRICT.”</b>	<b>131</b>
17.	<b>Dr.Y.LOKESWARA</b> <b>CHOUDARY</b>	<b>CYBER CRIMES IMPACT ON THE SOCIAL COSTS OF AN ECONOMY: SOME INSIGHTS AND ESTIMATES IN THE INDIAN CONTEXT</b>	<b>142</b>
18.	<b>K.HUMEERA BANU</b> <b>Y.LOKESWARA</b> <b>CHOUDARY</b>	<b>LEARNING AND DEVELOPMENT OF EMPLOYEES AT MANUFACTURING UNITS AND ITS IMPACT ON ORGANIZATIONAL PERFORMANCE: A STUDY</b>	<b>155</b>
19.	<b>MS.SUVENDY.S</b> <b>DR.Y.LOKESWARA</b> <b>CHOUDARY</b>	<b>WHAT BRANDS PLAY A ROLE IN MAKING THE CUSTOMER DELIGHT IN THE APPERAL MARKETS DURING POST COVID-19: AN INFERENTIAL ANALYSIS</b>	<b>168</b>

20.	<b>M.JAYANTHI Dr.Y.LOKESWARA CHOUDARY</b>	<b>CORPORATE SOCIAL RESPONSIBILITY PRACTICES OF INDIAN FIRMS AND ITS RELATION TO PERFORMANCE: A STUDY OF AUTOMOBILE INDUSTRY</b>	<b>179</b>
21.	<b>Mrs.B.YAMINI Dr.A.SARASWATHY</b>	<b>ORGANIC FOOD PRODUCTS CONSUMER BUYING DECISIONS ARE VARFROM NORMAL PURCHASE: SOME INSIGHTS AND LEARNINGS</b>	<b>192</b>
22.	<b>Mrs. NARVEKAR ARUNA NARENDRA KAUSHIKA Dr.Y.LOKESWARA CHOUDARY</b>	<b>PERSONAL, BEHAVIOURAL, WORK ENVIRONMENT FACTORS ROLE IN EMOTIONAL INTELLIGENCE AND ITS IMPACT ON PERFORMANCE AT WORK</b>	<b>198</b>
23.	<b>P. PANDIDURAI MOBEEN FARHANA S Dr. V. JACQUILINE RAJA BAI</b>	<b>ETHICAL ISSUES ON WORK FROM HOME IN INDIA: THEORETICAL STUDY</b>	<b>209</b>
24.	<b>SANDHIYA. M Dr ANLI SURESH</b>	<b>EFFICIENCY ON CHOOSING BANKING INVESTMENT OPTIONS BY SBI INVESTORS</b>	<b>213</b>
25.	<b>Ms.RENUKA.K Dr.SUJATHA.T</b>	<b>A STUDY ON ONLINE MARKETING- AFTER LOCKDOWN</b>	<b>225</b>
26.	<b>Mr. ASHISH KUMAR VERMA Dr. VISHNU PRAKASH MISHRA</b>	<b>A COMPARATIVE STUDY BETWEEN SWIGGY AND ZOMATO FOR LEVEL OF CUSTOMER SATISFACTION</b>	<b>230</b>
27.	<b>S. SASIKALA Dr. R. BHUVANA</b>	<b>IMPLEMENTATION OF MUSCLE -VEIN THICKENING BY VALINE AMINO ACID USING CORRELATIVE FEATURE EXTRACTION</b>	<b>238</b>
28.	<b>AYUSHLH.RAO SHASHANK.S.BATHIJA</b>	<b>TO EXAMINE THE IMPACT OF INNOVATIVE ADVERTISING TECHNIQUES WITH REFERENCE TO MCDONALD'S</b>	<b>247</b>

29.	<b>AARTHI MONALISAM</b>  <b>Dr. ANLI SURESH</b>	<b>SYNCHRONIZATION OF PERCEPTION, PREFERENCE AND PERSEVERANCE TOWARDS BANCASSURANCE AMONG THE MILLENNIALS</b>	<b>256</b>
30.	<b>GOVIND D NAIR</b>  <b>P VISHAL</b>	<b>A STUDY ON THE IMPLEMENTATION OF ARTIFICIAL INTELLIGENCE FOR CUSTOMER RELATIONSHIP MANAGEMENT</b>	<b>264</b>
31.	<b>Dr. S. CHANDRASEKARAN M. NARAYANAN</b>	<b>GREEN TECHNOLOGIES FOR BANKING SECTOR – A SPECIAL REFERENCE TO GREEN BANKING SYSTEM</b>	<b>273</b>
32.	<b>Mr. SHANKAR. S</b>  <b>Dr. D. ANAND</b>	<b>AN OVERVIEW OF CHALLENGES FACED BY THE HUMAN RESOURCE DEPARTMENT WHILE IMPLEMENTING DIGITALIZED ENVIRONMENT AND ITS EFFECTIVE USAGE.</b>	<b>281</b>
33.	<b>FEMELIN JISHA V</b>  <b>Dr. ANLI SURESH</b>	<b>A STUDY ON CONSUMER PREFERENCE TOWARDS DIGITAL PAYMENT APPLICATIONS IN RETAIL SHOPS IN CHENNAI</b>	<b>286</b>
34.	<b>Dr. RUCHI JAIN PALAK KHANDELWAL</b>	<b>THE IMPACT OF COVID-19 ON THE E- LIFE INSURANCE SECTOR: A CASE STUDY OF RAJASTHAN</b>	<b>293</b>
35.	<b>REX JOSHUA N</b>  <b>Dr. ANLI SURESH</b>	<b>INFLUENCING FACTORS FOR FALL OF CRYPTOCURRENCY IN INDIA</b>	<b>307</b>
36.	<b>SANGEETHA.B</b>  <b>Dr. ANLI SURESH</b>	<b>A STUDY ON RURAL CONSUMER TOWARDS FAST MOVING CONSUMER GOODS WITH SPECIAL REFERENCE TO CHENGALPATTU DISTRICT</b>	<b>315</b>
37.	<b>JESLIN DEBI D J</b>  <b>Dr. ANLI SURESH</b>	<b>A STUDY ON ANALYSING THE GEN Z's INTEREST AND AWARENESS ON DIGITALIZATION OF BANCASSURANCE</b>	<b>323</b>
38.	<b>SAHANA V</b>  <b>Dr. ANLI SURESH</b>	<b>A STUDY ON THE CHALLENGES OF AGRICULTURAL EXPORTS IN INDIA</b>	<b>333</b>

39.	<b>NUSRAT FATIMA B</b> <b>Dr. S ANITHA</b>	<b>ANALYSIS OF INVESTORS' PERCEPTION ON SUSTAINABILITY PRACTICES OF CORPORATE GOVERNANCE AND THEIR IMPACT ON ORGANISATIONAL PERFORMANCE OF SELECT ESG COMPANIES IN INDIA.</b>	<b>341</b>
40.	<b>DEEPIKA T</b> <b>Dr. ANLI SURESH</b>	<b>FACTORS INFLUENCING POST-OFFICE SAVING SCHEMES</b>	<b>349</b>
41.	<b>BLESSIN PRINCE</b> <b>SUBIKSHAA VL</b>	<b>EMPLOYEE'S ADAPTABILITY TOWARDS NEW JOB POSITIONS WITH KNOWLEDGE MANAGEMENT STRATEGIES</b>	<b>359</b>
42.	<b>SUWAATHI S</b> <b>Dr. ANLI SURESH</b>	<b>A STUDY ON PERCEPTION &amp; PATRONIZATION OF CENTRAL BANK DIGITAL CURRENCY (CBDC)</b>	<b>366</b>
43.	<b>GAYATHIRI SAIMEERA S B</b> <b>Dr. ANLI SURESH</b>	<b>A STUDY ON INFLUENCING FACTORS OF FOOD DELIVERY APPLICATIONS FOR THEIR RECENT GROWTH</b>	<b>374</b>
44.	<b>JACOB MATHEW</b> <b>SARATH S UNNITHAN</b>	<b>A STUDY ON FINANCIAL STRUCTURE AND ITS IMPACT ON HOUSEHOLD INVESTMENT</b>	<b>383</b>
45.	<b>CHANDANA DEEPESH &amp; ALAKA R</b>	<b>"A STUDY ON ENHANCEMENT OF EMPLOYEE PRODUCTIVITY THROUGH NON- MONETARY INCENTIVES"</b>	<b>393</b>
46.	<b>DURGA NADARAJAN</b> <b>Dr. T. PRAMANANDA PERUMAL</b>	<b>PRESERVING PRIVACY IN OPEN SOCIAL NETWORKS USING CRYPTOGRAPHY - A REVIEW</b>	<b>400</b>
47.	<b>AKHILA MOHAN</b> <b>MANOJ KUMAR</b>	<b>INVESTMENT AWARENESS OF YOUNG INDIVIDUALS WITH REFERENCE TO BANGALORE CITY</b>	<b>414</b>
48.	<b>SANGEETHA.B</b> <b>Dr. ANLI SURESH</b>	<b>A STUDY ON RURAL CONSUMER TOWARDS FAST MOVING CONSUMER GOODS WITH SPECIAL REFERENCE TO CHENGALPATTU DISTRICT</b>	<b>422</b>

49.	<b>KOWSALYA S Dr. ANLI SURESH</b>	<b>A STUDY ON CONSUMER PREFERENCE TOWARDS AMAZON ONLINE SHOPPING APPLICATION IN CHENNAI CITY</b>	<b>430</b>
50.	<b>KAVERAMMA C.H HARSHA M</b>	<b>“A STUDY ON AWARENESS AND WILLINGNESS AMONG THE CONSUMERS TO BUY RESIDUE FREE VEGETABLES IN BENGALURU REGION.”</b>	<b>438</b>
51.	<b>GREESHMA S PALLAVI. N.P</b>	<b>THE IMPACT OF FEAR OF MISSING OUT (FOMO) ON PRODUCTIVITY AND EMOTIONAL WELL- BEING OF IT EMPLOYEES</b>	<b>446</b>
52.	<b>GIREESHMA Y KUSHAL M</b>	<b>IMPACT OF NON-MONETARY COMPENSATION ON EMPLOYEE PERFORMANCE</b>	<b>452</b>
53.	<b>AMSHULA G PRASA</b>	<b>A STUDY ON CONSUMER SPENDING VIA CREDIT CARDSIN BENGALURU CITY URBAN</b>	<b>459</b>
54.	<b>RITU S M MUSKAN MALHOTRA</b>	<b>A COMPARATIVE STUDY ON CONSUMERS’ BUYING BEHAVIOUR TOWARDS RELIANCE JIO AND AIRTEL—SPECIFIC TO PATNA</b>	<b>465</b>
55.	<b>S. BHUVANESWARI T. PRAMANANDA PERUMAL</b>	<b>SECURITY SCHEME FOR GROUP COMMUNICATION IN INTERNET OF THINGS USING LIGHTWEIGHT KEY</b>	<b>470</b>
56.	<b>K. KAAVIYAPRIYA</b>	<b>ROLE OF TRANSFORMATIONAL AND INCLUSIVE LEADERSHIP’S STYLE IN INNOVATION: THE MEDIATING ROLE OF WORK ENGAGEMENT</b>	<b>478</b>
57.	<b>N.PRADEEPA</b>	<b>ROLE OF WOMEN IN WORKPLACE</b>	<b>487</b>
58.	<b>HARSHITA SINGH ISHIKA</b>	<b>IMPACT OF COVID-19 ON THE LIFE INSURANCE SECTOR</b>	<b>496</b>
59.	<b>BIJAY DAS</b>	<b>AN OVERVIEW OF SOCIAL PROGRESS THROUGH PMAY-G SCHEME IN SONITPUR DISTRICT OF ASSAM</b>	<b>503</b>
60.	<b>Dr.L.N.JAYANTHI</b>	<b>A STUDY ON POSITIVE AND NEGATIVE EFFECTS OF SOCIAL MEDIA ON EDUCATION</b>	<b>512</b>
61.	<b>E.MUTHUVELKUMARI Dr.S.HARIHARAPUTHIRAN</b>	<b>SIGNIFICANCE OF GREEN HRM PRACTICES IN THE ORGANIZATION</b>	<b>516</b>

62.	<b>KHAN SHAHWAR SINGH VIKAS</b>	<b>TAX ON CONSTRUCTION AND REAL ESTATE SECTOR IN INDIA: A LITERATURE REVIEW WITH SPECIAL REFERENCE TO GST</b>	<b>521</b>
63.	<b>SAHIL KUMAR SINGH SRUJANA S.D</b>	<b>A STUDY ON “THE USER PERCEPTION OVER THE MARKETING STRATEGIES OF START-UPS IN INDIA”</b>	<b>535</b>
64.	<b>Dr. S. SENTHIL KUMAR</b>	<b>DIVERSITY IN WORK PLACE</b>	<b>540</b>
65.	<b>Dr.S.PURUSHOTHAMAN</b>	<b>ETHICAL ISSUES IN WORK FROM HOME CULTURE</b>	<b>546</b>
66.	<b>Dr.NAZREEN BEE.M</b>	<b>ADAPTIVE LEARNING ENVIRONMENT TO DETECT THE LEARNING STYLES OF THE STUDENTS</b>	<b>551</b>
67.	<b>AMAL INFANTO VENSLEY Dr. PANDIARAJ, S.</b>	<b>A STUDY ON ELECTRIC VEHICLE FINANCING FOR PURCHASE OF ELECTRIC VEHICLES IN INDIA</b>	<b>561</b>
68,	<b>Dr. S. RENUGADEVI Ms. A. KAVYA</b>	<b>A STUDY ON EMPLOYEES SATISFACTION TOWARDS ONLINE FOOD DELIVERY COMPANIES IN COIMBATORE</b>	<b>569</b>
69.	<b>Ms. T. S. LAKSHMI Dr. J. LYSA EBEN</b>	<b>SECURED DATA STORAGE IN CLOUD USING ENCRYPTION ALGORITHM</b>	<b>575</b>
70.	<b>MANOJKUMAR V Dr. J. LYSA EBEN</b>	<b>ANALYSIS AND DETECTION OF DISTRIBUTED DENIAL OF SERVICE IN SECURED SOFTWARE DEFINED NETWORKS IN INDUSTRY</b>	<b>584</b>
71.	<b>Mr.P.PETCHIAPPAN Dr.M.THANIKAIVEL</b>	<b>AN EMPIRICAL STUDY OF CRM IN NON-BANKING FINANCIAL INSTITUTIONS WITH SPECIAL REFERENCE TO KANYAKUMARI DISTRICT, TAMILNADU</b>	<b>589</b>
72.	<b>Mrs. PRITA DAVIDSON Ms. D. KAVIYA</b>	<b>TALENT MANAGEMENT -THE NEW NORMAL</b>	<b>599</b>
73.	<b>JONITTA SHINU S J</b>	<b>A CONCEPTUAL FRAMEWORK ON TALENT MANAGEMENT</b>	<b>606</b>

74.	<b>REBECCA DAPHNE RAJAN</b>	<b>A STUDY ON IMPACT OF DIGITAL TRANSFORMATION ON CUSTOMER RELATIONSHIP MANAGEMENT IN THE CONTEXT OF E-COMMERCE.</b>	<b>614</b>
75.	<b>Dr. VIDHYA SATHISH Dr. S. MEENAKSHI</b>	<b>OBSERVATIONS OF IOT AT RECENT TRENDS</b>	<b>622</b>
76.	<b>SUDHA S</b>	<b>EMPLOYEES SATISFACTION TOWARDS E-HRM IN SERVICE ORGANISATIONS</b>	<b>628</b>
77.	<b>ASHIKA KATHEEJA.N</b>	<b>DIGITAL HUMAN RESOURCES ( DIGITAL HR)</b>	<b>633</b>
78.	<b>Dr.A.YASODHA Dr. R. RETHINA BAI</b>	<b>A STUDY ON AUTOMOBILE FINANCE FUNCTIONING THROUGH DIGITAL MARKETING.</b>	<b>638</b>
79.	<b>Dr. SUMAN DALAL Dr RAJKUMARI</b>	<b>DIGITAL MARKETING</b>	<b>646</b>
80.	<b>Dr. ANU BALHARA PRIYA MITTAL</b>	<b>E- ACCOUNTING</b>	<b>652</b>
81.	<b>Ms. RIYA Dr. SUNITA DEVI</b>	<b>IMPORTANCE OF ICT AS A DISCIPLINE AND ITS USES IN EVALUATION &amp; RESEARCH</b>	<b>658</b>
82.	<b>Dr MONIKA Ms SUMAN</b>	<b>ROLE OF INFORMATION COMMUNICATION TECHNOLOGY IN EDUCATION</b>	<b>664</b>
83.	<b>B. JAGADHESAN S. BALAJI V. NISHA</b>	<b>A STUDY OF TEXT ANALYSIS BASED ON SOCIAL MEDIA</b>	<b>669</b>
84.	<b>VIJAYA. K Dr. M. VETRIVEL</b>	<b>AN EMPIRICAL STUDY OF THE BEHAVIOURAL IMPACT ON ADOPTION OF FINTECH IN MYSURU DISTRICT</b>	<b>681</b>
85.	<b>Dr. K. PREMAVATHI S. ARAVIND</b>	<b>THE IMPACT OF PUBLIC HEALTH AND IMPROVED SOCIAL CONDITIONS ON LIFE EXPECTANCY: AN EXAMINATION OF PUBLIC AWARENESS</b>	<b>692</b>

86.	<b>Dr. J. FRANKLIN JEBARAJ</b>	<b>WORKING CAPITAL MANAGEMENT OF MANUFACTURING COMPANIES IN THE INDIAN TYRE INDUSTRY</b>	<b>704</b>
87.	<b>M.S. SRINIVASAN Dr. S. SUBRAMANIAN</b>	<b>IMPACT OF TALENT MANAGEMENT IN RETAINING THE EMPLOYEES IN MANUFACTURING INDUSTRY</b>	<b>711</b>
88.	<b>V.NISHA N. GOMATHI Dr.A.NARMADHA</b>	<b>IMPACT OF SOCIAL MEDIA AFFECTING MENTAL HEALTH</b>	<b>722</b>
89.	<b>S.VIJAYA BHARATHI A.MANIKANDAN</b>	<b>ENSEMBLE LEARNING MODEL WITH DEEP FEATURE EXTRACTION FOR CROP YIELD PREDICTION</b>	<b>727</b>
90.	<b>DR.M.KOTTEESWARI</b>	<b>A CONCEPTUAL STUDY ON BLUE OCEAN STUDY IN INDIA</b>	<b>744</b>
91.	<b>Ms. ANITHA.A Dr.S. SUBBULAKSHMI</b>	<b>PERCEPTION AND ATTITUDE OF YOUTH TOWARDS ELECTRONIC GADGETS IN CHENNAI CITY – A STUDY WITH REFERENCE TO COLLEGE STUDENTS IN CHENNAI CITY</b>	<b>755</b>
92.	<b>Dr.R.LAVANYA</b>	<b>THE IMPACT OF CORPORATE GOVERNANCE AND ITS PRACTICES IN INDIAN BANK</b>	<b>764</b>
93.	<b>Mr. SUHEEL PROF. C MAHADEVAMURTHY</b>	<b>THE PROGRESS AND GROWTH OF ONSITE-OFFSITE ATMS: A COMPARATIVE STUDY OF PUBLIC SECTOR, PRIVATE SECTOR AND FOREIGN BANKS IN INDIA.</b>	<b>773</b>
94.	<b>N. MALINI</b>	<b>ROLE OF TALENT MANAGEMENT PROCESS AND STRATEGIES IN ORGANISATIONS</b>	<b>786</b>

95.	<b>S. KARTHIKA</b>	<b>AN ANALYTICAL STUDY ON THE FINANCIAL PERFORMANCE OF LIFE INSURANCE CORPORATION OF INDIA</b>	<b>791</b>
96.	<b>Mrs. A. D. KAVITHA</b>	<b>AN INSIGHT OF ONLINE MARKETING TOOLS AND TECHNIQUES USED BY BUSINESS ENTERPRISES TO ATTAIN THE MARKET SHARE</b>	<b>802</b>
97.	<b>Dr. L. N. JAYANTHI</b>	<b>A STUDY ON POSITIVE AND NEGATIVE EFFECTS OF SOCIAL MEDIA ON EDUCATION</b>	<b>810</b>
98.	<b>Mrs. R. HEPSIBA BEULA Dr. M. RADHAKRISHNAN</b>	<b>A STUDY ON EMPLOYEES RETENTION STRATEGIES USING DESIGN THINKING WITH RESPECT TO IT INDUSTRIES</b>	<b>814</b>
99.	<b>G. ANBALAGAN G. ELATHARASAN S.BHUVANESWARI</b>	<b>APPLYING NEW ICT TOOLS FOR BUSINESS</b>	<b>821</b>
100.	<b>Dr. VINAY NAGPAL</b>	<b>FOREIGN EXCHANGE STUDY ON THE IMPACT OF MACRO ECONOMIC FACTOR IN RELATION TO CROSS CURRENCY RATES.</b>	<b>833</b>
101.	<b>ANKIT KALA Dr. MAHIMA RAI</b>	<b>COMPARATIVE STUDY OF BALANCE SHEET AND INCOME STATEMENT PREPARED UNDER IND AS AND IFRS WITH SPECIAL REFERENCE TO INFOSYS LTD.</b>	<b>850</b>
102.	<b>KAYALVEZHIS Dr. ANLI SURESH</b>	<b>IMPACT OF FOREIGN DIRECT INVESTMENT ON ECONOMIC GROWTH IN INDIA</b>	<b>870</b>
103.	<b>Dr. S. LAKSHMI Mrs. J. SALOMI BACKIAJOTHI</b>	<b>BRAND AWARENESS OF CUSTOMER ON THE PURCHASE OF SELECTED BRANDS OF MIXER'S IN CHENNAI CITY</b>	<b>877</b>
104.	<b>Dr. V. MEENAKSHI</b>	<b>GREEN TECHNOLOGY – A GLOBAL REACH OUT TOWARDS SUSTAINABILITY</b>	<b>886</b>

105.	<b>N. JANNIFER RANI</b> <b>Dr. ANLI SURESH</b>	<b>PERFORMANCE AND EFFICIENCY OF BANK APPLICATIONS WITH RESPECT TO DIGITAL TRANSFERS</b>	<b>893</b>
106.	<b>A. DEEPA</b> <b>Dr. A. ELANGO VAN</b>	<b>IMPACT AND EVOLUTION OF TRADITIONAL RETAILER'S BEHAVIOR AFTER THE ARRIVAL OF ONLINE SHOPPING</b>	<b>894</b>
107.	<b>P. KUPPAN</b> <b>Dr. SRIPRIYA</b>	<b>ARTIFICIAL INTELLIGENCE FOUNDATIONS IN HIGH SCHOOLS</b>	<b>911</b>
108.	<b>R. RAAJALAKSHMI</b>	<b>EMOTIONAL INTELLIGENCE IN LEADERSHIP: THE KEY FACTOR TO CREATING CREATIVE ORGANISATIONAL CLIMATE</b>	<b>917</b>
109.	<b>B. KARTHIKEYAN</b> <b>Dr. T. SUJATHA</b>	<b>METAVEVERSE AND MARKETING STRATEGIES OF LUXURY BRANDS</b>	<b>924</b>
110.	<b>MEENATCHI. M.B</b> <b>Dr.S.HARIHARAPUTHIRAN</b>	<b>THEORETICAL FRAMEWORK ON SIGNIFICANCE OF WORK PLACE DIVERSTY, EQUITY &amp; INCLUSION</b>	<b>934</b>
111.	<b>Dr. G. DHEEPA</b> <b>Dr. T. PAPITHA</b> <b>CHRISTOBEL</b>	<b>EATING BEHAVIOR IDENTIFICATION OF STUDENTS USING MACHINE LEARNING AND SPSS ANALYSIS</b>	<b>939</b>
112	<b>Mrs. SUKANYAN</b> <b>Dr. S. SUBBULAKSHMI</b>	<b>IMPACT OF SOCIAL MEDIA MARKETING AMONG USERS IN CHENNAI CITY - AN EMPIRICAL STUDY</b>	<b>951</b>
113.	<b>Ms. ANITHA. A</b> <b>Dr. S. SUBBULAKSHMI</b>	<b>PERCEPTION AND ATTITUDE OF YOUTH TOWARDS ELECTRONIC GADGETS IN CHENNAI CITY – A STUDY WITH REFERENCE TO COLLEGE STUDENTS IN CHENNAI CITY</b>	<b>958</b>

114.	<b>Dr. S. JAYALAKSHMI</b> <b>Dr. K. JAYACHITRA</b>	<b>IMPACT OF COMPUTER TECHNOLOGY ON ACCOUNTING</b>	<b>967</b>
115.	<b>A. DHARSHINI PRIYA</b>	<b>WORKPLACE DIVERSITY HELPS MANAGEMENT IN DECISION MAKING</b>	<b>975</b>
116.	<b>DIVYA JOTHI. E</b>	<b>BASIC ESSENCE OF CLOUD COMPUTING</b>	<b>979</b>
117.	<b>Dr. V. DHEENADHAYALAN</b> <b>SANDEEP. A</b>	<b>A STUDY ON STUDENTS' PERCEPTION TOWARDS E-LEARNING APPS WITH SPECIAL REFERENCE TO MALAPPURAM DISTRICT</b>	<b>987</b>
118.	<b>T. PREMKUMAR</b> <b>Dr. J. LYSA EBEN</b>	<b>REVIEW ON INTRUSION DETECTION SYSTEM BASED ON ML ALGORITHMS</b>	<b>1005</b>
119.	<b>N. MALINI</b>	<b>ROLE OF TALENT MANAGEMENT PROCESS AND STRATEGIES IN ORGANISATIONS</b>	<b>1014</b>
120.	<b>Mr. SIDDALINGESHWARA S</b>	<b>A STUDY ON EQUAL EMPLOYMENT OPPORTUNITY IN SELECTED COMPANIES</b>	<b>1020</b>
121.	<b>KOWSALYA S</b> <b>Dr. ANLI SURESH</b>	<b>A STUDY ON CONSUMER PREFERENCE TOWARDS AMAZON ONLINE SHOPPING APPLICATION IN CHENNAI CITY</b>	<b>1032</b>
122.	<b>SAHIL KUMAR SINGH</b> <b>SRUJANA S.D</b>	<b>A STUDY ON "THE USER PERCEPTION OVER THE MARKETING STRATEGIES OF START-UPS IN INDIA"</b>	<b>1040</b>
123.	<b>Dr. S. RENUGADEVI</b> <b>Ms. A. KAVYA</b>	<b>A STUDY ON EMPLOYEES SATISFACTION TOWARDS ONLINE FOOD DELIVERY COMPANIES IN COIMBATORE</b>	<b>1045</b>
124.	<b>MINHAJU MALIK.M</b> <b>DR. SRIPRIYA</b> <b>ARUNACHALAM</b>	<b>TO STUDY ON TRENDS OF DIGITAL SECURITY AND THE ROLE OF SOCIAL MEDIA IN DIGITAL SECURITY</b>	<b>1052</b>

125.	CA SHASHI KUMAWAT Dr. T.N. MATHUR	AN EVENT STUDY OF STOCK MARKET BEHAVIOUR DURING PRE AND POST-MERGER PERIOD OF SELECTED PUBLIC SECTOR BANKS	1067
126.	Dr. S. SELVARASU Dr. N. VIJAY	“A STUDY ON NATIONAL HUMAN RIGHTS COMMISSION IN INDIA”	1077
127.	Dr. V. VICTOR SOLOMON G. RAMAMOORTHY	A STUDY ON AWARENESS OF GREEN MARKETING IN AMINJIKKARAI TOWN	1091
128.	MARY PETER SHIRLEY DR. SR. CHRISTINA BRIDGET	INNOVATION – A REQUISITE FOR ENTREPRENEURSHIP	1097
129.	SREEVIDYA .S Dr. SRIPRIYA ARUNACHALAM	AN SVM APPROACH FOR ASD PREDICTION IN TODDLERS	1106
130.	Dr. PRABAKARAN. P	“PERCEPTION OF EMPLOYEE VALUE PROPOSITION ON RETAINING TALENT WITH REFERENCE TO EMPLOYEES OF THE IT SECTOR”	1121
131.	SHYAMA C	REVENGE SHOPPING POST LOCKDOWN AND RETAIL CHANNEL PREFERENCES	1138

**THE RESEARCH STUDY ON CORPORATE GOVERNANCE  
SIGNIFICANCE OF INDEPENDENT DIRECTORS IN INDIAN  
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**ABSTRACT**

**INTRODUCTION:**

The corporate sector in India today looks for good corporate governance which is depending upon efficiency and effectiveness of independent directors. Independent Directors are positioned as mentors as well as guide of management and as well supervisory position which will ensure better management decision making backed by action which creates value to shareholders, responsibility to protect minority shareholder's interests as well. Independent directors with board allow the directors to be objective and evaluative cum performance based and well being of a company without having any conflict of interest or undue influence of interested parties. In a corporate board with a major share of independent directors can bring professional experience and objective based performance for the better interest of stockholders such as shareholders as well as management. Independent Directors are representatives and they look corporate issues with vested interest and no hidden agenda. In case of companies who are having more independent directors, which enhance outside directors to feel that they have support in raising contrary points of view. The existence of independent director facilitates outside director to raise an issue that may be sensitiveness to the family ownership of business or founders of corporate organization. The nick name of Independent Directors suggests that they are expected to be independent from the

management point of view and acts as safeguards, and trustees of shareholders. The Independent Directors have the obligation to be fully aware of issues and question the methodology of conducting administrative organization various relevant issues. Company's act 2013 specifies the code for Independent Directors which underlies that their role, functions and duties of Independent Directors. This role provides real independence with effective based efficiency while discharging their duties role and responsibilities.

### **RESEARCH METHODOLOGY:**

It is an empirical study, so the researcher has followed scientific approach to design the research methodology for investigation. For this study researcher has used primary data and secondary data as a source of information.

### **SOURCES OF PRIMARY DATA:**

The study is based on perceptual responses of professionals with regard to organizational perceptions and effectiveness on corporate governance practices. For this purpose, data were collected through structured questionnaire by emails, post and field survey.

### **SOURCES OF SECONDARY DATA:**

For the purpose of secondary data the researcher has used published Annual Reports, websites and other publications of sample companies. For sampling the researcher has used stratified sampling technique. The number of corporate sector is very large and it is beyond the capacity of individual researcher to conduct the study with census. Thus the researcher has taken total of 50 companies for the study.

### **THE FINDINGS OF THE STUDY IS AS UNDER:**

- Experience and independent directors can get correlated to company's performance.
- Independent directors take part in all committees by serving as chairman such as related party transactions, whistle blower policy, environmental policy, employee welfare scheme, business human rights policy and legal compliance, there by ensure good corporate Governance disclosure norms.
- Independent Directors were present in almost all board meetings ensuring better performance of companies through their independent deliberations and judgment.

- Infosys Company have 8 independent directors and their presence of independent directors in the board make significant difference in corporate governance practices.

### **CONCLUSION:**

The data analysis and case study Analysis are summarized and conclusion are drawn as under:

The Independent Directors are vital and play important role if they provide opportunity to ensure that they protect the interest of minority shareholders. The independent directors must be given full freedom to express their independent views and they need not watch dogs against the majority of directors. The main interest of the independent directors must be given full freedom to verify corporate governance norms in all respects. The main focus of the independent director must be of the company not anyone else. Interest of the company is almost important. Everyone's right is protected by independent directors. It must be accepted that interests of the company comes first. This research shows that the independent directors are equipped with enough powers to protect the rights of minority shareholders. Finally it can be concluded that independent director is a person who is knowledgeable in similar kind of business who do not possess any relation with internal management of the company will act independently for the benefit of shareholders.

**KEY WORDS:** Independent Directors, Corporate Governance, Protection, Share Holders, Interest, Disclosure Power.

## MARKET FOR MODERN HUMAN BEINGS

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### **ABSTRACT**

Marketing has turned so-called luxury consumption into necessities consumption. This accelerates the economic development and economic growth of the consumer durables market, the automobile market, the real estate market and so on. New modern trends appear in the market, it can be difficult for marketing managers to follow the changes and implement them in their own strategies. Inbound marketing agencies are there to do the research and detailed work involved in deciding which new method of marketing trends to be adopted, as well as how to go about implementing a complete marketing strategy into Trendy business marketing, consider how the marketing strategy is driving traffic and whether it's working. Analyze the effective way of sales is at converting into customers and generating sales revenue.

**KEYWORDS:** Marketing, Consumers, E-marketing, online, demand etc.

### **PRELUDE**

Event marketing aims to create an unforgettable experience by engaging event attendees and encouraging direct interaction with the customers. Interactions can take many forms: trying to push a product, showing a product demo, watching a concert, attending a launch, networking and also attending a seminar or conference, etc. Consumers are using multiple channels to shop, engaging and interacting with brands presents both opportunities. and challenges for marketers. On the one hand, every interaction is informed by the growing amount of consumer data available, giving marketers better insight into their prospects than ever before. More data means they can target their ads more effectively and personalize their campaigns based on individual consumers. With so many different identifiers, it's hard to know that they all actually represent the same person. To make matters even more confusing, consumers often move around, switch accounts and change their tastes, which means marketers must regularly update their profiles if they want to keep up. Keeping data fresh and up-to-date is a big challenges.

## OBJECTIVES

1. The main objective of this article is to find out the real impact of e-commerce on improving e-skills.
2. Inform the necessary about the awareness of the buyers.
3. To draw the attention of interested parties to the realization of the current state deprived of the market.

## MARKETING ELEMENTS

The role of supply chain management in improving customer service. Implementation of AI in e-marketing. Green consumption in the coming years. The company provides a useful service to its clients. Customers get an overview of their accounts very easily. In business environment, e-commerce and e-business have become critical elements of organizations' strategies, a demonstration can help a company address and solve various customer problems that are common in the real world. E-marketing has benefited companies by reducing cycle times, facilitating customer support and empowering employees

It matters What's more, a mix of marketing types can produce better results than focusing on one type or channel. Growth marketing, but it's not some black hat hacking. It's growing fast, but its strategy is customer-centric, non-brand-threatening, and focused on the long-term. Many highlight the role of user-generated templates in Notion's success. The company supports the creation and sharing of usable templates for various documents and operations. A marketing type may work for one company but not for another. It is generally recommended to experiment with different types of marketing and marketing channels, especially in the early stages of a company's growth.

E-marketing is the process of doing business on the Internet. Amazon uses it by offering music, toys, electronics, software, books and clothing to its customers. Japan is an organization that has been operating successfully since the last century, but has suffered from global economic problems. E-marketing is a powerful machine that is moving the world towards the information society. It is beneficial for both the smallest and the largest companies. Every person has several needs and desires. people work together to fulfill mutual needs that they cannot fulfill on their own The research highlights examples of B2C, B2B, C2C and m-commerce business models and focuses on companies, products and services that do not have e-commerce

known as e-commerce refers to business transactions conducted online through electronic means. Correct analysis of the SAP CRM system .



## TECHNOLOGICAL DEVELOPMENT

E-marketers are becoming a very powerful and respected group in modern society. E-marketing is responsible for facilitating the exchange of goods and services in the new age. Technological developments have changed the way of communication and brought many opportunities to businesses. Work environment, types of e-commerce, social networks in the workplace and definition of database sellers in the market, gaining new supporters using modern media serve only as a tool to improve the organization's promotion model. By strengthening business objectives.

interruptive” form of marketing where a company communicates a product to a potential customer through cold calling, cold emailing, direct mail, most forms of advertising, etc. This means that the website owner receives a commission every time someone clicks on that link or buys something through that link . In this way, the paying company rewards affiliates for influencing their bottom line Someone bought Vitamin capsules worth Rs 3,240 on Amazon. Likewise, the owners received Rs 145 that day, 24 hours after the publication of the article containing these Vitamin capsules.

Notion's success rests on many pillars: a great product, a huge and vocal community, and a "premium" model. You Tuber M was one of the few carefully selected influencers to promote the new Samsung Smartphone product line. Channel x has 4.8 million subscribers. Compare that to the average reach of news shows in the world and it's easy to see why influencer marketing can be a powerful strategy.

## CONSEQUENCES OF SURGERY

The consequences of the operation can be devastating for the donor. While recipients must be careful to receive decent post-operative care, donors rarely, if ever, receive decent post-operative care. As a black market donor, you have no right to follow-up care – no rights. Researchers report that more than 80 percent of donors do not receive the full amount of cash they were promised. In addition, two-thirds report that their surgery has left them with permanent physical limitations that prevent them from earning money for their families, reinforcing their cycle of grinding poverty. hometown people dream of becoming financially independent and supporting their family financially. Unable to secure regular employment, he obtained membership in a direct selling firm that requires no education or degree. Scammers promise you to invest your money and generate high returns with zero risk. After withdrawing from old investors, they pay out money to new investors and keep most of the shares for themselves. The reality is that the commissions earned by up line members go a long way toward increasing product prices.

Direct selling is operating or selling a product through a network of resellers, a pyramid scheme focuses on recruiting new people and collecting money from them. overpricing products, hiring uneducated labor in the industry and selling poor quality products are some of the practices of direct selling companies that upset her. In a written statement, the company said: we do not support the listing and sale of our products on online marketplaces, as this directly affects the earning potential of our consultants. Additionally, there is no way to track products that are sold online, so protecting consumers from fake or expired products is a challenge.”

The Center last year brought changes to the Consumer Protection (Direct Selling) Rules by 2021 to protect consumers from direct selling companies from promoting pyramid schemes or money laundering schemes. Direct selling entities and direct sellers are prohibited from promoting a pyramid scheme or enrolling any person in such a scheme or participating in any way in such an arrangement under the guise of a direct selling business." The rules mandate that each direct selling company must ensure that the goods and services offered by their direct sellers are in accordance with applicable laws.

The digitization of brands and the increase in mobile data and content consumption means that brands need a digital presence. Before this sudden digital transformation, traditional marketing methods, including print media advertising, were popular. In fact, many brands would agree that conventional forms of advertising are expensive and there is no way to trace a potential customer

back to the source of the advertisement. But advertising on the largest social network market has the potential to reach more than 560 million users. According to a report issued by IDSA, the direct selling industry grew by 7.7% during the financial year 2021 and crossed the 18,000 crore mark. Globally, the direct selling industry is USD 190 billion and in India.

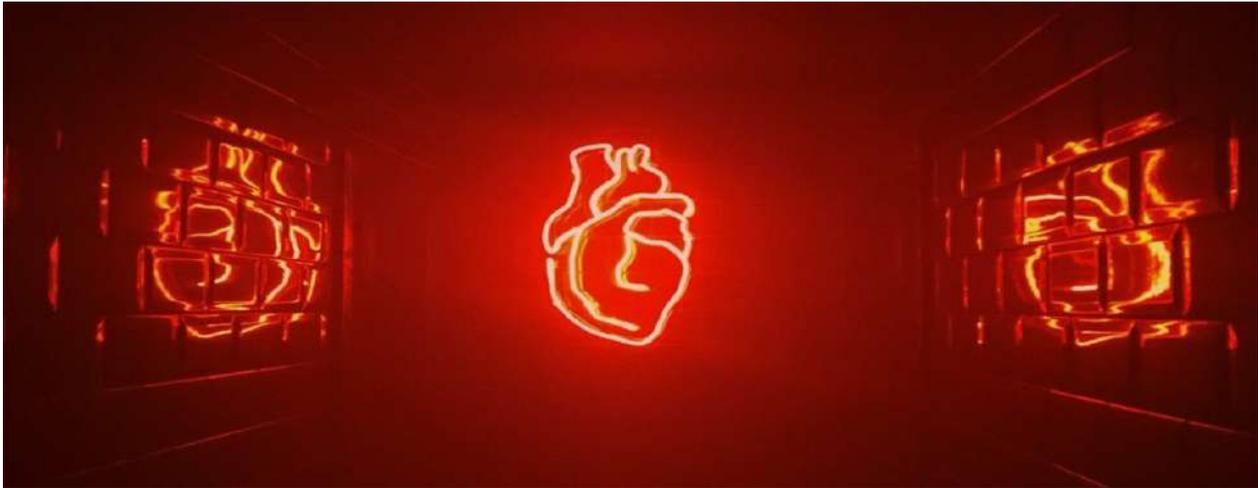
Yet when we think of social media platforms, we see them as casual browsing sites. A new report estimates the losses suffered by customers due to social media fraud. More than 95,000 buyers are said to have lost a total of more than \$700 million. Online shopping fraud accounted for 45% of all social media fraud reported in 2021. In 70% of cases, people never received the goods they paid for. . Even e-commerce giants are not safe from counterfeit products and fraudsters.

### **SOCIAL MEDIA GIANTS ARE ENJOYING AN UNPRECEDENTED AMOUNT OF USER DATA.**

Half of the world's population, or 59% by 2022, uses social media. It offers sellers the opportunity for minute and targeted marketing. Content and influencer marketing is a buzzword these days. Ads have moved from image or content based marketing to video based marketing. This trend has been popularized by online video sharing and social media platforms. Today, video sharing and content creation sites enjoy more than 2.5 billion active users. In 2022, 4.7 billion users are actively exploring social media platforms. Estimates show that in 2022 there will be 227 million user profiles on social networks. Looking at the numbers, it's no surprise that popular messaging apps have launched end-to-end encryption to protect user privacy.

### **THE ONLINE MARKET EXCITING TRENDS:**

The digital footprint of Indian customers has seen a multifold increase in 2020. As a result, online marketplaces have seen an increase in the number of first-time buyers. Demand for CPG (Consumer Packed Goods) is growing. With new players entering the market daily, the CPG market is competitive. The online marketplace offered CPGs a unique opportunity for targeted marketing. In addition to the pandemic, several factors have helped online marketplaces. Easy and secure payment gateways and integrated delivery methods have facilitated digital transformation for consumers. Big players have started showing interest by investing in e-commerce. The interest has given much-needed confidence to the sector. Businesses have adopted a hyper-local e-commerce model. Online marketplaces also grew significantly in Tier 2 and Tier 3 cities. Tier 2 and Tier 3 customers drove festival sales.



## ORGAN HARVESTING

in connection with an "organ harvesting" ring that lured victims with false promises of high-paying jobs in Cambodia, where they were told that regular health checkups and X-rays were mandatory. piglets' would have organs such as kidneys and livers removed from the operation. Now try to look at the situation through the eyes of the donor. Consider all the pressures that might put you under their skin: You might feel desperate enough to engage in what's called "transplant tourism," an odyssey that you can be sure will lead you to a from the poorest regions of the world. It could be a country in South or Southeast Asia, the Middle East, or some other region overflowing with impoverished people. Don't forget to bring plenty of cash: you'll bear the full cost and much of the risk for the organ, surgery, and recovery time, which can range from \$20,000 to \$200,000..Identify your repeat purchase, up sell and cross-sell opportunities. Because your existing customers have already bought, they already know, like and trust you. If you've provided a good experience, you've given them a reason to do business with you again if they ever need to. A professional looking website is one of the most important assets you will create for your small business. This is where you show who you are, what you offer, where you are, and how a potential customer can connect with you.



## WEBSITE BUILDERS

To start a blog, you can use a cheap or free website builder and use one of their templates. Even if you only post once a week, it will improve your website's visibility online and help educate your potential customers on why they should trust your company. If you plan to write your posts yourself, check out this beginner's guide. Once you start writing, you can add a call to action to your posts so visitors can subscribe to your blog and receive emails. It's a great way to start collecting leads and offer potential customers a way to get information if they're not ready to buy from you.

If you are not technical and want a website built for your small business, you can use a freelancer or marketing agency that specializes in web design. This is a great option for businesses that already have a website but need to update and redesign it for SEO (Search Engine Optimization) to help improve your Google ranking. To find a freelancer or marketing consultant in your area,

When a happy customer talks about how great your company is on social media or a review site, your product or service looks like a good investment. Even on social media, word of mouth is still a big factor in purchasing decisions. If a potential customer sees a friend raving about your business on Facebook or posts a photo of food from your restaurant on Instagram, they're more likely to go. After all, 71% of consumers are more likely to make a purchase based on a social media recommendation. If customers tell you they like your product, encourage them to share their experience on Yelp, Google, or social media. If you run a brick-and-mortar business, you may also want to place sign-ups in your account handles so customers know who to tag when they post a picture of your product.

In the words of Philip Kotler: “Social marketing is the determined implementation and control of programs that seek to increase the acceptability of a social idea, cause, or practice in a group. Uses market segmentation, consumer research concept, developmental communication, facilitation, motivation and exchange theory to maximize target audience response”.

The higher population in some emerging economies does not allow them to achieve significant growth in supply. Manufacturers in these countries are not interested in scientific marketing. Marketing in economically poor countries is therefore in its infancy. However, there is scope for marketing provided policy makers in these countries achieve effective product distribution and convert latent demand into real demand. In the first place, they have to add

distribution problems. Without marketing, economic development will have to take on total arenas. Marketing has a dynamic process through which business enterprises can be productively integrated. It is again the process by which the economy is integrated into society to serve human needs.

## CONCLUSION

The focus of marketing goes beyond the social, ethical, scientific and historical foundations of marketing. Non-profit organizations like universities, temples, NGOs, etc. are engaged in product development, pricing, distribution and promotion to serve the needs of their customers. They compete with each other. He tries to build long-term relationships with the client. Meta marketing has broadened the horizons of the marketing discipline. By creating new users for existing products. In today's hi-tech era, adding product features increases the marketing value of products.

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## AN ANALYSIS ON CLOUD COMPUTING

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### ABSTRACT

Today is the era of Cloud Computing Technology in IT Industries. Cloud computing which is based on Internet has the most powerful architecture of computation. It reckons in of a compilation of integrated and networked hardware, software and internet infrastructure. It has various avails atop grid computing and other computing. In this paper, I have given a brief of evaluation of cloud computing by reviewing more than 30 articles on cloud computing. The outcome of this review signalizes the face of the IT industries before and after the cloud computing.

**KEYWORDS**— Cloud, SaaS, PaaS, IaaS, Cloud Computing.

### INTRODUCTION

Like real clouds which are the collection of water molecules, the term ‘cloud’ in cloud computing is the collection of networks. The user can use the modalities of cloud computing boundlessly whenever demanded. Instead of setting up their own physical infrastructure, the users ordinarily prefer a mediator provider for the service of the internet in cloud computing. The users have to pay only for the services they had used [2]. The workload can be shifted to reduce the workload in cloud computing. A load of service is handled by the networks which forms the cloud that's why the load on local computers is not heavy while running an application [1]. So the requisition of hardware and software at the user side is decreased. All we need to have a web browser to use cloud computing. All we need to have a web browser like chrome to use cloud computing. Following are the key features of cloud computing:

- I.I Resource Pooling and Elasticity
- I.II Self-Service and On-Demand Services
- I.III Pricing
- I.IV Quality of Service

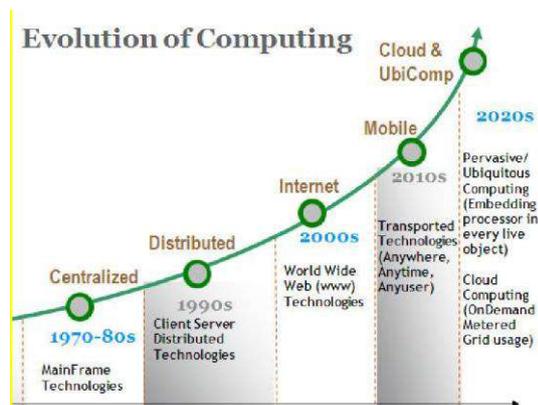
There are three services provided by cloud computing that are Software as a Service (SaaS), Platform as a Service (PaaS) and Infrastructure as a Service (IaaS) [1]. The basic examples of cloud computing which are used by general people in daily life are Facebook, YouTube, Dropbox, and Gmail etc. It offers scalability, flexibility, agility, and simplicity that's why its use is rapidly increasing in the enterprises.



**Fig 1 Network of Cloud**

## EVOLUTION OF CLOUD COMPUTING

One day in a speech at MIT around in 1960 John McCarthy indicated that like water and electricity, computing can also be sold like a utility. And in 1999, the Salesforce Company started distributing the applications to the customers through a convenient website [3]. Amazon Web Services were started by Amazon in 2002 and they were providing the services of storage and computation. In around 2009 big companies like Google, Microsoft, HP, Oracle had started to provide cloud computing services [4]. Nowadays each and every person is using the services of cloud computing in their daily life. For example Google Photos, Google Drive, and iCloud etc. In future cloud computing will become the basic need of IT Industries.



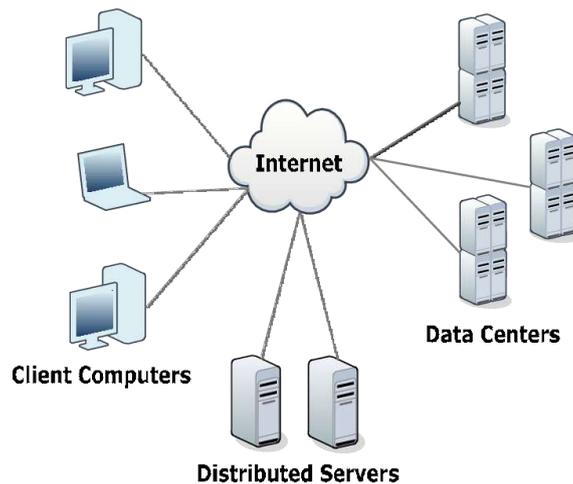
**Fig 2 Evolution of Cloud Computing**

## COMPONENTS OF CLOUD COMPUTING

Cloud computing has three basic components as follows-

**III.I Client Computers:** The end user can interact with the cloud using the client computers.

**III.II Distributed Servers:** The servers are distributed among the different places but acts like they as working with each other.



**III.III Data Centres:** Data centres are the compilation of servers.

**Fig 3 Components**

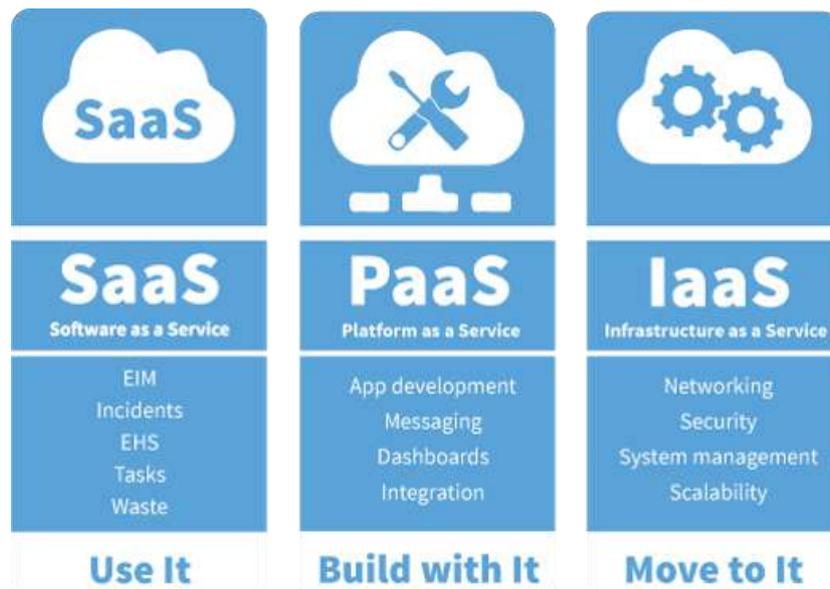
## SERVICES OF CLOUD COMPUTING

**IV.I Software as a Service (SaaS):** The way of carrying application as a service on the internet is known as software as a service. In place of installing the software on his computer, the user can simply access it via the internet [5].

It makes the user free from managing the complex software and hardware. The SaaS users do not need to buy software or hardware, maintain, and update. The only thing user must have an internet connection and then access to the application is very easy. Example, Microsoft Office 365, Google Apps etc.

**IV.II Platform as a Service (PaaS):** A development environment or platform is given to the consumers as a service in PaaS, upon which user can deploy their own software and coding. The customer has the liberty to construct his own applications that can run on the provider's infrastructure [5]. Product as a service providers offers a predefined composition of operating system and application server to obtain the management capacity of the applications. For example, LAMP (Linux, Apache, MySQL, and PHP), J2EE, Ruby etc.

**IV.III Infrastructure as a Service (IaaS):** Many computing resources are provided by the IaaS in the form of storage, network, operating system, hardware, and storage devices on



demand. IaaS users can access the services using a wide area network, such as the internet [5]. For example, a user can create virtual machines by login to the IaaS platform.

**Fig 4 Cloud Computing Services**

## I. TYPES OF CLOUD COMPUTING

**V.I Public Cloud:** The public cloud is a computing service supplied by the third party providers atop the public internet [6]. These services are available for any user who wants to use them and they have to pay only for the services they consumed.

**V.II Private Cloud:** The computing services provided over the internet or private network come under the private cloud and these services are offered only to the selected users in place of common people [1,6]. A higher security and privacy is delegated by private clouds through the firewall and internal hosting

**V.II Hybrid Cloud:** Hybrid cloud is the combination of public cloud and private cloud. In the hybrid cloud, each cloud can be managed independently but data and applications can be shared among the clouds in the hybrid cloud [1, 6].

## II. BENEFITS OF CLOUD COMPUTING

**VI.I Cost Saving:** In cloud computing users have to only pay for the services they consumed. Maintenance cost is low as user do not need to purchase the infrastructure [2].

**VI.II Flexibility:** Cloud computing is scalable. The rapid scale up and down in the operations of your business may require quick adjustment of hardware and resources so in order to manage this variations cloud computing provide flexibility.

**VI.III Enhanced Security:** Cloud computing provide high security by using the data encryption, strong access controls, key management, and security intelligence.

## III. CONCLUSION

In this analysis paper, I described in short the introduction, evolution, types and components of cloud computing and also different approaches of cloud computing and some of its advantages. The application area of cloud computing will continuously be increasing. Today approximately all small and big industries are using cloud computing to manage storage, traffic, hardware requirements. So, it is clear that there is major impact of cloud computing on society and business.

## ACKNOWLEDGMENT

I am thankful to our principal Dr Vijaya Bhaskar and our Head of Dept Mr Praveen Kumar V and all the faculty member of the Computer Science department of Acharya Bangalore B School for motivation and encouragement which helped us to complete this analysis paper.

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## “A STUDY ON INFLUENCE OF ORGANISATIONAL CULTURE IN MPHASIS IT”

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### **ABSTRACT**

Organizational culture is the most discussed topic in the modern days in behavioural science and found the interest of topic since Pettigrew, who gave it an anthropological perspective. Schein had connected culture with leadership in management functions. Culture exists in many levels, including national culture and organizational culture. Social culture contributes in terms of values, norms and beliefs, while organizational culture with broad minded contributes in different levels such as values, rules and practices. Culture in organization reflects in its employee's behaviour whereby organizational culture becomes an integral part of the functioning of organizations.

### **OBJECTIVES**

The present study is aimed to make a detailed investigation about the organizational culture in IT industry Chennai. The major objectives of the present study are listed below.

- ✓ To explore the significant variations, if any, in the organizational culture on the various socio-demographic factors among IT employees.
- ✓ To understand the associations, if any, in the organizational culture on the various of socio-demographic factors among IT employees.
- ✓ To find out the influence of stress on organizational culture in IT industry.
- ✓ To understand the influence of organizational commitment on organizational culture in IT industry.
- ✓ To find out the influence of job satisfaction on organizational culture in IT industry.
- ✓ To understand the significant influence of job Involvement on organizational culture in IT industry.

## **RESEARCH METHODOLOGY**

### **RESEARCH DESIGN**

The present study is an attempt to explore the culture among the Mphasis IT employees in Chennai in relation to their socio-demographic factors, work, family and organizational behavior related issues such as, occupational stress, organizational commitment, job involvement and job satisfaction. In the present study, quantitative as well as descriptive research design was followed and may be detailed under the following subtitles.

### **POPULATION OF THE STUDY**

The population in which the present study was conducted comprised of the employees working in the Mphasis, an IT company in Chennai.

### **SOURCE OF DATA**

The primary data for this study were collected directly from the respondents. While the sources of secondary data were books, journals and web resources. Unit of analysis refers to social entities whose social characteristics are the focuses of the study. In this study, the individual respondent (each employee) constitutes the unit of analysis.

### **PRIMARY DATA**

Primary Data for the study were collected through the standardized psychometric instruments and data sheet for socio-demographic factors. A detailed socio/demographic data sheet was also included for recording the socio-demographic and personal details of the respondents. The questionnaire was administered as online web page and personal E-mails sent to respondents. The aim of the study with an assurance to treat their personal data as confidential was mentioned in the front page of the questionnaire. In the demographic data sheet, name of the employee was made optional and majority of the respondents opted not to disclose their name. 123 Completed questionnaires were received. After eliminating the incomplete/defective ones a total of 100 valid response sheets were used for this study.

### **SAMPLING METHOD**

Proportionate stratified sampling method was used for this study. In this case population was divided into different strata based on the designation of the respondents.

## SAMPLE SIZE

The minimum sample size needed for the study was found to be 100 with a margin of error of 5% at 95% confidence level. A proportionate stratified random sampling is followed, the sample size taken is 100.

## SECONDARY DATA & DATA ANALYSIS

Secondary data needed for the study were collected from journals, magazines, other publications, reports, books, dailies, other forms of periodicals and articles, research papers, websites, company publications, manuals and booklets etc.

Analysis plan provides insights into the most optimal manner in which the voluminous data collected could be summarized and analysed to arrive at the answers to the research questions and to address the research objectives. SPSS (Statistical Package for Social Sciences), Version 16.0 was used to analyze the data. Descriptive and inferential statistics were applied to the data.

## LIMITATIONS OF THE STUDY

Every research study has its own limitations and this study is no exception. The limitations of the present study are listed below:

- ✘ This study is specific to the IT industry. Therefore, the generalizability of its findings to other occupations may be limited.
- ✘ Further, this study is based on data from major IT companies in Chennai Info-park only. Applicability of the results to International and National level may need to be established by further studies.

## DATA ANALYSIS AND INTERPRETATION

The data have been analyzed in line with the objectives of the study and are presented under the two sections.

**Table 1 Profile of the Mphasis employees**

Sl. No	Respondent's profile	Frequency	%
1	<b>Education</b>		
	Diploma	8	8
	B. E	58	58
	M. E	23	23

	MCA/MSC	7	7
	MBA/PG	4	4
	<b>Total</b>	<b>100</b>	<b>100</b>
2	<b>Education Status of Spouse</b>		
	Not Applicable	39	39
	Diploma	4	4
	B.E	22	22
	M.E	14	14
	MCA/MSC	16	16
	MBA/PG	5	5
	<b>Total</b>	<b>100</b>	<b>100</b>
3	<b>Number of Children</b>		
	Not Applicable	44	44
	One	19	19
	Two	31	31
	Three or more	6	6
	<b>Total</b>	<b>100</b>	<b>100</b>
4	<b>Number of Dependents</b>		
	3	61	60.7
	4-6	32	32.3
	7 & Above	7	7.0
	<b>Total</b>	<b>100</b>	<b>100</b>
5	<b>Employment status of spouse</b>		
	Not Applicable	39	39
	Software Engineer	12	12
	Self-Employed	8	8
	Employed	35	35
	Not Working	6	6
	<b>Total</b>	<b>100</b>	<b>100</b>
<b>Recreation Technique Practiced</b>			
Music	29	29.0	

6	Yoga	14	14
	Art	17	17
	Sports	35	35
	Gardening	3	3
	Walking	3	3
	<b>Total</b>	<b>100</b>	<b>100</b>
7	<b>Mode of Transportation</b>		
	Public	14	14
	Own Vehicle	42	42
	Company Vehicle	44	44
	<b>Total</b>	<b>100</b>	<b>100</b>
8	<b>Relaxation between work</b>		
	Talk to friends	34	34.0
	Check Mails	35	35.0
	Take a short break and go out	31	31.0
	<b>Total</b>	<b>100</b>	<b>100.0</b>
9	<b>Training attended</b>		
	<4	35	35.0
	5-8	31	31.0
	9-12	21	21.0
	>13	13	13.0
	<b>Total</b>	<b>100</b>	<b>100.0</b>
10	<b>Parental House Located</b>		
	Metropolitan	6	6
	Urban	14	14
	Semi-Urban	24	24.0
	Rural	56	56
	<b>Total</b>	<b>100</b>	<b>100</b>
11	<b>Your Parents</b>		
	Employed	26	26
	Self-employed	26	26

	Agriculturalist	49	49
	<b>Total</b>	<b>100</b>	<b>100</b>
12	<b>Number of Locations Worked</b>		
	<2	35	35
	3-4	46	45
	>5	19	18
	<b>Total</b>	<b>100</b>	<b>100</b>
13	<b>Experience</b>		
	<4	32	32.0
	5-8	31	31.0
	9-12	23	23.0
	>13	14	14.0
	<b>Total</b>	<b>100</b>	<b>100.0</b>
14	<b>On-site Projects Worked</b>		
	<5	85	85
	6-10	10	10
	>11	5	5
	<b>Total</b>	<b>100</b>	<b>100</b>
15	<b>Number of Companies Worked</b>		
	<2	49	49
	3-4	41	41
	>5	10	10
	<b>Total</b>	<b>100</b>	<b>100</b>
16	<b>Support from Superior</b>		
	Never	1	1
	Rarely	5	5
	Sometimes	25	25
	Often	63	63
	Very Often	6	6
	<b>Total</b>	<b>100</b>	<b>100</b>
	<b>Support from Co-Worker</b>		

17	Never	1	1
	Rarely	4	4
	Sometimes	24	24
	Often	64	64
	Very Often	8	8
	<b>Total</b>	<b>100</b>	<b>100</b>

**INTERPRETATION**

Table 1 shows the various demographic features of the IT employees. Regarding the educational qualification, while 4% of the IT employees are having MBA/PG, 7% of them have done MCA/MSC, 8% of them have diploma and 23% of them are M.E qualified employees. Majority of the IT employees (58%) have done B.E. In respect to the years of experience, while 14% of the IT employees are having above thirteen years of experience, 23% of them are having 9 to 12 years experience and 31% of them having 5 to 8 years of experience.

While, 32% of the IT employees are belonging to the category of below 4 years experience. Similarly, majority of the IT employees spouse (55%) are working in software firms/ self-employed and a very few of them (6%) are not employed, while 35% of them are employed in private or government services. Majority of the IT employees spouse are B.E graduates (23%) and merely 3.8% constituted diploma holders. It’s also worthy to note that 35% of the IT employees’ spouses are postgraduates. Majority of the IT employees (31%) have two children and 6% of them are having more than two children, while 19% of them have single child. In respect to the number of dependents of the IT employees, 61% have three or less number of dependents, while 7% have more than seven dependent members and 32% constitutes 4-6 dependents.

In this study, IT employees chose different methods to recreate themselves, 35.2% are engaged in sports, 29% listened to music, yoga is chosen by 13.5% of the IT employees, gardening and walking are chosen by IT employees 3% and 3% respectively. The IT employees chose to travel by company vehicle (43%) and own vehicle (42%), while 14% chose to travel by public transport system. In present study, IT employees differs in choosing relaxation method between works, 35% are checking mails and 34% talks to friends, while 31% takes a short break and go out to relax them. One third of the IT employees have attended only less than four trainings. 13% of the IT employees have attended more than 13 training programme, while 31% of them have attended 5-8 trainings and 21% have attended 9-12 training programme. Rural is the background of the majority of the IT employees (56%), 24% of them are from semi-urban background and

14% are from urban background, while only 6% are from metropolitan life to this survey.

Parents of the majority IT employees are employed or self-employed (52%) and 49% are from agricultural background. In respect to the locations worked by the IT employees, 46% of them worked in three to four locations and 19% worked in more than five locations. IT employees who have worked in more than eleven projects constitute 26% and 31% of them have worked in 6-10 projects, while 43% have only worked in less than five projects. Meanwhile 5% of the respondents have worked above eleven on-site projects and 10% of them have worked in 6-10 on-site projects, while 85% of them worked only in less than five projects that project the majority. Half on the IT employees (49%) have worked in one or two companies, while 10% have worked in more than five companies. In respect to support from superior, 1% of the IT employees have never received any support from superior; on the flip side 63% of the IT employees often receive support from the superiors. Meanwhile IT employees received often (64%) support from their co-workers, whereas 1% of the IT employees never received support from co-worker.

**Table 2 Chi-square test showing the association of organizational culture among male and female employees**

		Cultural Class			Total	X <sup>2</sup>	P
		Low	Medium	High			
Gender	Male	48	160	37	245	9.775	.05
	Female	15	123	17	155		
<b>Total</b>		<b>63</b>	<b>283</b>	<b>54</b>	<b>400</b>		

In order to assess the significance of association of organizational culture based on gender of the IT employees, Chi-square test was performed. The test statistics proves that there is significant association among male and female employees in respect to the organizational culture, which points out that culture is same irrespective of gender and common to everyone in an organization. Gender differences in work family studies are often attributed to traditional gender role norms in which women are expected to take care of the household and men as the breadwinners. Now-a-days, however, the number of dual earner families is growing and more modern gender role norms prevail, with both men and women finding it important to participate in family life and work. The prevalence of modern norms contradicts the assumption that men and women divide their roles according to traditional gender role norms. Even though female professional as a group have been found more affected than male professional groups. Many

academic women feel that their career opportunities are limited after having children. Colleagues may assume that they have sold out and are no longer committed to their careers, which may influence promotion and other opportunities for advancement. Even though there is constitutional right to have equal opportunities and gender equality in India, there are different standards of behaviors for men and women that carry over into the work environment also. Still among the rural mass, women participation in employment outside the home is generally viewed as slightly inappropriate, subtly wrong and definitely dangerous to their chastity and womanly virtue. Organizational culture is common platform to work and there is no gender difference prevalence is seen in information technology companies.

## CONCLUSION

Organizational culture increasingly being recognized as a strategic human resource management tool to generate employee commitment, satisfaction, increasing morale, and to reduce sources of stress and problems at work place, and also to attract and retain talented work force. In the present day of globalization, competitive work culture is changing the way of work condition in every organization. The present study comprises investigations on the impacts of certain selected variables socio-demographic variables, occupational stress, organizational commitment, job satisfaction and job involvement.

Attempts had been made specifically to examine whether the socio-demographic variable and organizational behavior variables are the major contributors of organizational culture among information technology employees in Chennai. The results indicated that socio-demographic and organizational behaviour variables influence the culture. The study has also revealed that culture differ among the employees based on marital status, level of education, experience, designation, number of children, monthly income, mode of transportation and number of dependents etc. In nutshell the results indicated that the stress reduced the level of organizational culture while increase in the commitment and job satisfaction and job involvement improved the organizational culture. The tested organizational culture model clearly shown that occupational stress, organizational commitment, job satisfaction and job involvement are the influencers of organizational culture.

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# **IMPACT OF DEMOGRAPHIC VARIABLES ON CUSTOMER PERCEPTION TOWARDS GREEN PRODUCTS WITH REFERENCE TO ARAKKONAM TALUK**

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## **ABSTRACT**

Green marketing promotes the development of environmentally friendly products and services to satisfy the customers who want good quality, efficient and convenient products at affordable prices. It holds the view that a business should not only satisfy customers in particular, but also take into account the interests of society in general and doing business with environmentally friendly products that does not harm the environment. The objective of this paper is to discuss the impact of demographic variables on customer perception towards green products at Arakkonam taluk, Ranipet District, Tamil Nadu.

**KEY WORDS:** Green Marketing, Green Products, Environment, Environmentally Friendly and Customer Perceptions.

## **INTRODUCTION**

The concept of green product is evolutionary rather than revolutionary in the sense that the usage of green product is been in practice since our ancient civilization. It was used more generically and was available in our living place and surroundings all our physiological needs and day today needs were satisfied instantly as these green products were essential groceries in everyone's home but today the whole scenario has changed. We live in a modern and sophisticated era where our food habits, living habits have changed drastically. Junk foods, chemical cosmetics have replaced home foods and herbal cosmetics and today all of sudden everyone has started to

think and speak on using green products and have started realizing the harmful effects of chemical products. In this backdrop this study aims to analyse the impact of demographic variables on customer perception towards green products included in this research paper.

### **STATEMENT OF THE PROBLEM**

Green products has the global concern for the past few years and now it will become important concern for the safeguarding the environment. Therefore, understanding consumer purchasing trends for green marketing products in the areas is very crucial. Consumer awareness is highly significant for the environment when purchasing the green products instead of regular products. Hence, it is important to understand the impact of demographic variables on customer perception towards green products.

### **OBJECTIVES**

1. To study the awareness of consumers towards eco-friendly green products.
2. To identify the association of awareness of green product with demographic variables.
3. To provide suggestions to improve the customers' awareness and buying decisions of Green Products.

### **SCOPE OF THE STUDY**

The study is exclusively conducted for customer using green marketing products in Arakonam Taluk. This will help the firms in understanding the factors influence consumer to buy green products and their satisfaction level towards the products by which the firms involved in green marketing products can bridge the gap between customer perception and the firm expectation and bring a better understanding of consumer needs for the customers. This research would act as a source of awareness and will provide the customers an opportunity to express their feeling towards green products and further their expectations from it. From researchers point it was a very good learning experience in the field. This will help in shaping and developing the career of the researcher.

### **SIGNIFICANCE OF THE STUDY**

Few studies have been conducted on consumer behavior regarding to green products specifically in relation to the influences of factors to purchase intentions of green products. However, there has been a whole wealth of research, attempting to profile the environmentally conscious members of the population. This study will be significant and useful for the business in terms of know awareness, buying behavior of green consumer also impact of demographic

variables on customer perceptions of eco-friendly green products, especially the market targeted to green consumers.

## **RESEARCH METHODOLOGY**

### **RESEARCH DESIGN**

Descriptive research work was adopted for the present study.

### **HYPOTHESIS**

H0.- There is no significant effects of using eco-friendly green products on Demographic factors.

### **DATA SOURCE**

**Primary data:**-The primary data is collected from the structured questionnaire.

**Secondary data:** - Apart from the primary data the secondary data is being collected through text books, academic reports, internet, etc.

### **SAMPLING**

**Sample size:** 150

**Sampling area :** Arakkonam Area, Rannipet District

**Sampling method:** Convenient Sampling.

### **TOOLS USED**

**Data collection:** Primary data was collected through structured questionnaire.

**Data presented:** The data's are well presented using tables.

**Data analysis:** Data analysis was done using percentage analysis and chi-square test.

### **LIMITATIONS OF THE STUDY**

1. General apprehension on the part of respondents might have prompted them not to furnish right information so chance of respondent bias cannot be ruled out.
2. The study is restricted only to Arakkonam taluk so the result of this study cannot be generalized for other arears.

### **REVIEW OF LITERATURE**

**Brinda et. al., (2022)** Green marketing is the process of selling products and services based on their societal interest and environmental benefits. Many environmental companies that are committed to environmental and social responsibility use green marketing. Green marketing is a novel approach to protecting society and the environment. The study's main goal is to assess the relationship between consumer awareness and perception of green marketing with reference to Indian Tobacco Company (ITC) Limited. concluded that there is a relationship between consumer

awareness, consumer perception, environmental concerns, and consumer purchasing decisions of ITC consumers in Bangalore city for green marketing products.<sup>1</sup>

**Sewwandi. and Dinesha (2022)**, When consumers buy a product, the green concept has become a major concern in the modern world. Sri Lankan consumers are also shifting their purchasing habits toward environmentally friendly purchases. Despite the fact that environmental activities have a significant influence on human and firm behaviour, very few academic disciplines, particularly marketing, have integrated the selected phenomenon into their literature. Thus, the purpose of this research is to determine whether Environmental Advertisements, Perception of Eco-labels, and Perception of Eco Brands influence green purchasing behaviour.<sup>2</sup>

### DATA ANALYSIS AND INTERPRETATIONS

**Table 1: Association between status of awareness of Green Marketing with Demographic Factor**

STATEMENT		AWARE OF GREEN PRODUCT		Total	%	Chi-square	Sig.
		YES	NO				
GENDER	Male	51	28	79	52.67	0.557	Not Significant
	Female	46	25	71	47.33		
	Total	97	53	150	100		
AGE	Below 25	21	8	29	19.33	0.002	Significant
	26-35	29	13	42	28		
	36-45	14	17	31	20.67		
	46-55	20	12	32	21.33		
	55 above	13	3	16	10.67		
	Total	97	53	150	100		

<sup>1</sup>Brinda M , Murali .V , Chandra Sekhar.S , Dr. Rajesh Vemula , Dr. Sarita Rana(2022) Consumer Awareness And Perception Towards Green Marketing: An Empirical Study In Bangalore City, [Vol. 6 No.5](#)

<sup>2</sup> Sewwandi J.P.N, and Dinesha P.K.C. (2022),The impact of green marketing tools on green product purchase behavior: the moderation effect of consumer demographics ,[Vol. 1 No. 01](#)

<b>QUALIFICATION</b>	<b>PG</b>	<b>16</b>	<b>8</b>	<b>24</b>	<b>16</b>	<b>0.8</b>	<b>Not significant</b>
	<b>UG</b>	<b>5</b>	<b>4</b>	<b>9</b>	<b>6</b>		
	<b>HSC</b>	<b>44</b>	<b>28</b>	<b>72</b>	<b>48</b>		
	<b>SSLC</b>	<b>26</b>	<b>11</b>	<b>37</b>	<b>24.67</b>		
	<b>Illiterate</b>	<b>6</b>	<b>2</b>	<b>8</b>	<b>5.33</b>		
	<b>Total</b>	<b>97</b>	<b>53</b>	<b>150</b>	<b>100</b>		
<b>OCCUPATION</b>	<b>Govt Employee</b>	<b>25</b>	<b>12</b>	<b>37</b>	<b>24.67</b>	<b>0.491</b>	<b>Not significant</b>
	<b>Private Employee</b>	<b>35</b>	<b>19</b>	<b>54</b>	<b>36</b>		
	<b>Businessmen</b>	<b>16</b>	<b>10</b>	<b>26</b>	<b>17.33</b>		
	<b>Professional</b>	<b>5</b>	<b>4</b>	<b>9</b>	<b>6</b>		
	<b>House Wife</b>	<b>6</b>	<b>0</b>	<b>6</b>	<b>4</b>		
	<b>Student</b>	<b>1</b>	<b>0</b>	<b>1</b>	<b>0.67</b>		
	<b>Others</b>	<b>9</b>	<b>8</b>	<b>17</b>	<b>11.33</b>		
	<b>Total</b>	<b>97</b>	<b>53</b>	<b>150</b>	<b>100</b>		
<b>MARITAL STATUS</b>	<b>Married</b>	<b>70</b>	<b>35</b>	<b>105</b>	<b>70</b>	<b>0.274</b>	<b>Not significant</b>
	<b>Unmarried</b>	<b>27</b>	<b>18</b>	<b>45</b>	<b>30</b>		
	<b>Total</b>	<b>97</b>	<b>53</b>	<b>150</b>	<b>100</b>		
<b>MONTHLY INCOME</b>	<b>Less than ₹20000</b>	<b>12</b>	<b>10</b>	<b>22</b>	<b>14.67</b>	<b>0.385</b>	<b>Not significant</b>
	<b>₹20000 to ₹30000</b>	<b>28</b>	<b>9</b>	<b>37</b>	<b>24.67</b>		
	<b>₹30000 to ₹40000</b>	<b>33</b>	<b>19</b>	<b>52</b>	<b>34.67</b>		
	<b>₹40000 to ₹50000</b>	<b>18</b>	<b>9</b>	<b>27</b>	<b>18</b>		
	<b>₹50000 above</b>	<b>6</b>	<b>6</b>	<b>12</b>	<b>8</b>		
	<b>Total</b>	<b>97</b>	<b>53</b>	<b>150</b>	<b>100</b>		

Table 1. 52.67% are male and 47.33% are female, which shows majority of the male are involved in shopping process are aware of green products. This shows the least composition of female respondents in consumer's perception towards green products in Arakkoanm taluk. A maximum of 28 percent of the population is between the ages of 21 and 35 years. The second largest group aged between 45 to 55 years with 21.33% of the total responses. About percent are aged between years 36 to 45 are 20.67% and 19.33% are aged below 25 years. The lowest

percentages come from respondents aged above 55 years with 10.67% to the total data collected. It has been discovered that respondents between the ages of 21 and 35 are more interested in green products. The majority of respondents 48% have a higher secondary level of educational qualification, followed by 24.67% are having up to school level as their educational qualification, 16% are having post graduate level as their educational qualification, 6% are having under graduate level as their educational qualification and 5.33% are illiterate. This shows that majority of the respondents have 48% higher secondary level of educational qualification in the green products. The occupation of the respondents selected shows 36% are Private employee, 24.67% are Govt. employee 17.33% are Business man, 11.33% are Others, 6% are Professional, 4% are from House wife and 0.67% are Students. This shows that majority of the respondents are Private employee. This shows that 70% of married and 30% of unmarried, Majority of the respondents married are aware of green marketing products. The monthly income distribution indicates that 34.67% are earning income of ₹30,000 to ₹40,000, 24.67% respondents are earning income of ₹20,000 to ₹30,000, 18% are earning income of ₹40,000 to ₹50,000, 14.67% of the respondents are earning income of less than ₹20,000 and 8% of the respondents are earning income of above ₹50,000. This shows that a significant percentage of customers in all income categories respond favourably and consumers in lower income groups are also willing to pay more for green product.

## TESTING OF HYPOTHESIS

### Hypothesis 1

**Null hypothesis (Ho):** There is no association between gender and awareness of Green Product.

From the chi square test, it is observed that P value is 0.557 which is more than the significant alpha level of 0.05 Hence, the null hypothesis is accepted and alternative hypothesis is rejected.

#### Inference:

Since P value  $0.557 > 0.05$ , HO is accepted and H1 is rejected. Hence there is no association between gender and awareness of Green Product.

### Hypothesis 2

**Null hypothesis (Ho):** There is no association between age and awareness of Green Product.

From the chi square test, it is observed that P value is 0.002 which is less than the significant alpha level of 0.05 Hence, the null hypothesis is rejected and alternative hypothesis is accepted.

#### Inference:

Since P value  $0.002 < 0.05$ ,  $H_0$  is rejected and  $H_1$  is accepted. Hence there is association between age and awareness of Green Product.

### **Hypothesis 3**

**Null hypothesis ( $H_0$ ):** There is no association between Qualification and awareness of Green Product.

From the chi square test, it is observed that P value is 0.80 which is more than the significant alpha level of 0.05 Hence, the null hypothesis is accepted and alternative hypothesis is rejected.

#### **Inference:**

Since P value  $0.80 > 0.05$ ,  $H_0$  is accepted and  $H_1$  is rejected. Hence there is no association between Qualification and awareness of Green Product.

### **Hypothesis 4**

**Null hypothesis ( $H_0$ ):** There is no association between Occupation and awareness of Green Product.

From the chi square test, it is observed that P value is 0.491 which is more than the significant alpha level of 0.05 Hence, the null hypothesis is accepted and alternative hypothesis is rejected.

#### **Inference:**

Since P value  $0.491 > 0.05$ ,  $H_0$  is accepted and  $H_1$  is rejected. Hence there is no association between Occupation and awareness of Green Product.

### **Hypothesis 5**

**Null hypothesis ( $H_0$ ):** There is no association between Marital status and awareness of Green Product.

From the chi square test it is observed that P value is 0.274 which is more than the significant alpha level of 0.05 Hence, the null hypothesis is accepted and alternative hypothesis is rejected.

#### **Inference:**

Since P value  $0.274 > 0.05$ ,  $H_0$  is accepted and  $H_1$  is rejected. Hence there is no association between Marital status and awareness of Green Product.

### **Hypothesis 5**

**Null hypothesis (Ho):** There is no association between Monthly Income and awareness of Green Product.

From the chi square test it is observed that P value is 0.385 which is more than the significant alpha level of 0.05 Hence, the null hypothesis is accepted and alternative hypothesis is rejected.

**Inference:**

Since P value  $0.385 > 0.05$ , HO is accepted and H1 is rejected. Hence there is no association between Monthly Income and awareness of Green Product.

**Findings:**

1. Discovered that respondents between the ages of 31 and 40 have a greater interest in green product. There is an association between age and awareness of green product.
2. Majority of the male (52.67%) are involved in shopping process are aware of green products. There is no association between gender group and awareness of green marketing products.
3. Majority of 48% of the respondents are HSC. There is no association between qualification and awareness of green marketing products
4. Majority of 36% of the respondents are private employee. There is no association between occupation and awareness of green marketing products
5. Majority of the respondents (70%) who are married are aware of green marketing products.
6. There is no association between Marital status and awareness of Green Product
7. Majority of the respondents (34.67%) are in the income group of ₹40000 to ₹50,000 per month. Monthly income has no association in relation to the awareness of green marketing.
8. Majority of 64.67% of the respondents are aware of green marketing.

**Suggestions:**

1. More efforts should be taken to promote green products among the female customers and encourage them to involve more in buying green products.
2. The companies should use a variety of marketing to raise more awareness to customers.
3. Customers are willing to pay a little bit more for the green products. they are aware that the green factors increase the price of the product, so customers are willing to pay more for green products.
4. Companies should offer a wider variety of environmentally friendly items to help customers make smarter decisions.

5. Companies should stock enough environmentally friendly goods in their retail locations.
6. More efforts should be done to encourage customers to adopt more environmentally friendly behaviours.
7. Manufactures of green products items producers provide exclusive special discounts and services to attract more customers.

### **Conclusion:**

According to the study, the majority of Arakkonam customers are aware of green marketing concepts and goods. We can conclude that the company can go green by provide training to their employees, especially sales representative. This is to provides them knowledge on how to promote the green product effectively by clearly presenting the main message to the consumers. Company needs to make new creative ideas and marketing mix to go green. Companies must educate their customers about the concept. To conclude with a famous old thought the family that eat together stays together but now the new thought is the family that user green product. Live together a happier and healthier life.

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## THE CONNECTION BETWEEN BIRTH CONTROL AND ECONOMIC EFFECTIVENESS

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### **Abstract:**

Bringing economic stability to every female's life has been an objective of countries for so many years. But when there is a strong and safer way of actually bringing stability in their lives and for which there have been reasonably good results since the 1970s as evidence, then why not realize the importance of it already and try to educate them about its usage? This research paper highlights how women could turn out "more abled" once given sources of control over their bodies and over the stance of having children, by means of contraception. It highlights the regimes adopted in various known countries in the world and how its encouragement has led to more participation in the workforce, equal pay rates, financial stability post-middle age, and more.

**KEYWORDS:** financial stability, contraception, more abled

**HYPOTHESIS OF THE STUDY:** Women are more likely to contribute to the GDP if there are birth control measures, right from their 20s.

### **FAMILY PLANNING AS A WHOLE:**

It's pretty simple to understand that family planning will help women to increase their job opportunities and acceptances from various companies, along with better health conditions and more age gaps between their children, which could reduce the child mortality rate as well. But, considering the fact that there are various factors to consider like that of accessibility, literacy regarding contraceptives, education, income status, culture, and attitude of households, we cannot really expect that the mortality rate can be reduced quickly or population can be under control and the family planning program can be a success! It is not as simple as that.

If proper use of contraceptives, along with detailed visits to your gynecologists would be ensured, then clearly the health condition of the female can be improved along with the increase in chances of

securing a good job in the 20s and 30s, as per a report from a long-term project conducted in Columbia.

There are many programs held around the world, like that of one in the Matlab region in Bangladesh wherein one set of the village population was visited by health workers to give direct advice about contraceptive use and risks of pregnancy and while the other set had to visit the government clinics directly to get access and because of their lack of education related to this domain, much lesser accessibility rates had been found from this set. Rates of mortality and underweight women fell in regions where contraceptives were personally provided by health workers.

In regions of Sub-Saharan Africa, even if the situation regarding the use of contraceptives and lowering teenage pregnancies has been reduced, it's yet to be referred to as an acceptable improvement. It is mainly because of the fact that women in such areas don't even have proper access to secondary education because of "low income" issues which lead to them lacking access to both the knowledge and contraceptive measures themselves.

Other interesting results witnessed are the fact that women in STEM, especially those in medicine and law, have increased by more than 33 % since the 1970s. It increased from less than 5% in law and business schools to a proportion of about 57% and 39% by the 1980s in law and business schools respectively.

Although we cannot particularly give credit to the accessibility of contraception as a measure that improves the chances of jobs or education attainment for young females but still could be partly regarded as the reason for the increase in graduates as per surveys conducted across various states in the USA.

Another point to be noted is that even their children are able to live a standard lifestyle and this is sustained as they grow older too.

## **MEASURES TAKEN BY COUNTRIES OVER THE YEARS FOR IMPROVED ACCESSIBILITY :**

In the Texas region, laws were implemented that ensured that low-income category women were able to access the major contraceptives. For this, at least 67% of the funding for free supplies was cut, which made it more relevant to target the financially weaker section of women.

Medicaid Family planning programs were amended such that waivers were introduced and women in the age category of 20-44 had a reduced birth rate.

There were laws in the US that mandated the employer's insurance to cover the expenses associated with birth control such that unintended pregnancies are prevented. Even public health insurance ensured that low-income women are at benefit.

As a result of such measures, many teenage pregnancies which tend to be unintended, have been reduced from a rate of 118 every 1000 women to hardly about 17 per 1000 women as of 2017. This is because of encouragement in the usage of contraceptives through laws since the 1990s.

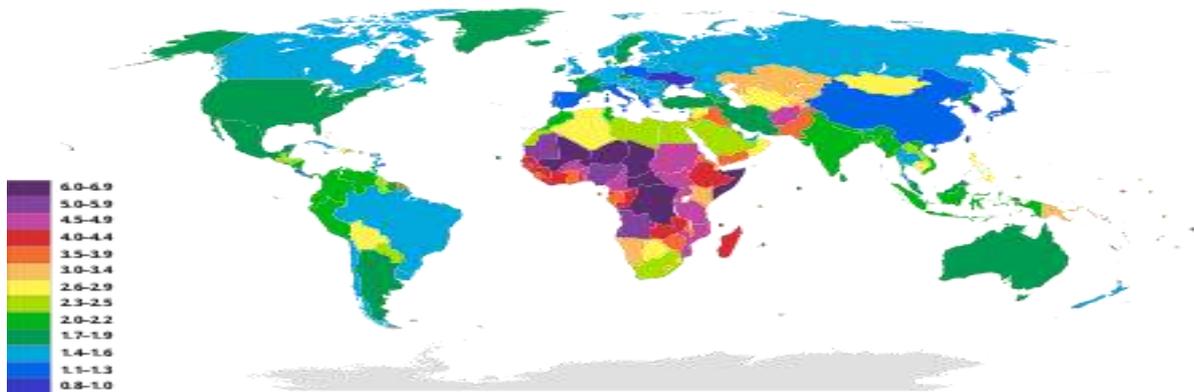
In the European Union, several appreciation-worthy measures have been implemented to safeguard women. **Germany** has initiated a free provision of medical services related to contraception without a consultation fee for females under the age of 18 and about 10 euros charge (around 850 rs) for adults. At the same time, it is free for everyone in case contraception use is for reasons other than avoiding pregnancies.

Citizens in **Romania** who contribute to the National Health insurance scheme have their consultation sessions, Intrauterine device charges covered while the payment for injectable hormonal contraception lies at half their regular price. In **Spain**, packets of contraceptives are provided at low charges for females covered under the National Health System and are usually sold for free in various public health clinics.

**Subsidization** of contraceptives in countries like Scotland, Northern Ireland, and Wales has taken place such that GBP 11 (INR 1101) an average is saved. There are oral contraceptives provided free of cost for adolescents and females lesser than 20 years of age, even without a prescription. In emergency scenarios for older ages also, these are provided without prescriptions. For adolescents and low-income women, free prescriptions are available.

**The government of India initiated** the supply of emergency contraceptives at really "cheap" rates to various district-level depots in 17 states, with the best part being that it was deployed through ASHAs (Accredited Social Health Activists). These ASHAs ensured that there was direct supply to every possible home in the district consisting of a couple. This is in turn made sure that the supply chain is not dismantled or slower because of middlemen. This scheme had started back in 2011 and

ensured that couples are even able to gain access to re-supplies by simply contacting the ASHA involved with their district.



**Source Note:** Population Reference Bureau, Wikipedia

The above image shows the fertility rate by country as of 2020.

## Income generation

The capabilities of women are no more questioned now that there is legalized access to contraceptives. The oral ones especially, are the most used and prevent them from losing jobs even in their 50s.

Because of easier and more flexible access in today's times, women in many countries from age 20 can have the same number of hours at work along with the same wage rate as the males. This means that birth control measures also contribute to equality. Also, they get the freedom to choose the age when they turn out to be stable enough to have children, and secondly, they can even decide about the gaps to be kept between them.

Another inference that can be drawn is that neither the parents suffer due to the scarce availability of financial resources and unplanned children nor does the woman nor her child have to stay in poverty in the later years.

One of the major benefits to consider would be the fact that not only will women stay fit for work by the usage of contraceptives which are both for birth control and menstrual pains but also it will help them to gain autonomy over their body and prevent the "violent" partner in an abusive relationship take control of the financial resources with regards to their unplanned children.

Researchers have found correlations between anxiety, stress, and depression in couples and unplanned children, especially when the sources of finance are minimal and push them to a poverty stage. As per US reports, at later stages, these children are likely to gain 30 credits lesser when graduating from their schools.

## **Recommendations**

Each country must identify the reproductive rights of every female and must collect data from time to time regarding the demand and supply of contraception regularly in order to identify if there are any groups of the population who are unable to gain access to it.

Provisions should be made through social activists to reach out to each district that might tend to lack basic education in schools. There should be a direct supply of emergency contraceptives through these activists free of cost and if not free then at least at half the cost price.

Finally, the objective of every country's Government should be that every human being, of reproductive age, in a country should have autonomy over themselves and there should be nil hindrances caused due to lack of accessibility due to factors like affordability.

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Access to Contraceptives in the European Union

Contraceptives to Doorsteps in India

Economic benefits of birth control

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4064744/>

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## **A SURVEY ON SECURITY AND PRIVACY ISSUES IN INTERNET-OF-THINGS**

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### **ABSTRACT**

The Internet of Things has revolutionized the global network of people, intelligent things, smart devices, information, and data (IoT). It should go without saying that as more devices connect to the internet, the challenges associated with safeguarding the data they broadcast and the communications they initiate increase. The use of IoT devices has considerably risen over time, mostly in industrial and the home. The former has resulted in the development of a whole ecosystem focused around Amazon Echo devices that use the Alexa Voice Service. Microsoft, Google, and Apple all took the same action. Since these are independent, closed platforms, it is the platform providers' responsibility to protect the devices. We concentrate on cyber security in the manufacturing sector and allied sectors in this study. Industries including manufacturing, oil and gas, refining, pharmaceuticals, food and beverage, water treatment, and many more are always working to add the essential layers of security as more and more devices and equipment are brought online. Device makers and plant operations managers are constantly under pressure to protect their physical assets from cyber threats. Additionally, there are notable disparities in the data kinds, IoT device topologies, threat management difficulties, and compliance needs across each of these enterprises.

**KEYWORDS--** Internet of Things, Cyber-attack, Security threats.

### **INTRODUCTION**

The recent rapid development of the Internet of Things (IoT) and its ability to offer different types of services have made it the fastest growing technology, with huge impact on

social life and business environments. Internet of Things (IoT) devices are rapidly becoming ubiquitous while IoT services are becoming pervasive. Their success has not gone unnoticed and the number of threats and attacks against IoT devices and services are on the increase as well.

The Internet of Things (IoT) is an idea that could radically alter our relationship with technology. The promise of a world in which all of the electronic devices around us are part of a single, interconnected network was once a thing of science fiction. But IoT has not only entered the world of nonfiction; it's taking the world by storm. IoT devices are no longer a niche market.

IoT in the education sector has already started to make the conventional education system more automated — interactive smart classrooms are helping students learn and participate more, whilst automatic attendance and various student tracking systems could help to make schools more secure. Internet-enabled remote classrooms will be a milestone for developing countries, making deep penetration in areas where setting up a traditional school infrastructure is not possible. Internet-enabled manufacturing and industrial units are giving differentiating results, making them safer and more efficient through automated process controls. Plant and energy optimization, health and safety control and security management are now increasingly being provided by advanced sensors, networked with sophisticated microcomputers [3][4].

### **INTERNET OF THINGS (IOT)**

The internet of things, or IoT, is a system of interrelated computing devices, mechanical and digital machines, objects, animals or people that are provided with unique identifiers (UIDs) and the ability to transfer data over a network without requiring human-to-human or human-to-computer interaction. A thing in the internet of things can be a person with a heart monitor implant, a farm animal with a biochip transponder, an automobile that has built-in sensors to alert the driver when tire pressure is low or any other natural or man-made object that can be assigned an IP address and is able to transfer data over a network [6][7].

Increasingly, organizations in a variety of industries are using IoT to operate more efficiently, better understand customers to deliver enhanced customer service, improve decision-making and increase the value of the business [9].

The internet of things (IoT) is a computing concept that describes the idea of everyday physical objects being connected to the internet and being able to identify themselves to other devices.

The term is closely identified with RFID as the method of communication, although it also may include other sensor technologies, wireless technologies or QR codes.

## **CHARACTERISTICS OF INTERNET OF THINGS (IOT)**

Some most popular characteristics of Internet of things are:

- (a) Intelligence
- (b) Connectivity
- (c) Dynamic Nature
- (d) Enormous scale
- (e) Sensing
- (f) Heterogeneity
- (g) Security

### **(a) INTELLIGENCE**

IoT comes with the combination of algorithms and computation, software & hardware that makes it smart. Ambient intelligence in IoT enhances its capabilities which facilitate the things to respond in an intelligent way to a particular situation and supports them in carrying out specific tasks. In spite of all the popularity of smart technologies, intelligence in IoT is only concerned as means of interaction between devices, while user and device interaction is achieved by standard input methods and graphical user interface [8].

### **(b) CONNECTIVITY**

Connectivity empowers Internet of Things by bringing together everyday objects. Connectivity of these objects is pivotal because simple object level interactions contribute towards collective intelligence in IoT network. It enables network accessibility and compatibility in the things. With this connectivity, new market opportunities for Internet of things can be created by the networking of smart things and applications. Connectivity in the IoT is more than slapping on a WiFi module and calling it a day. Connectivity enables network accessibility and compatibility. Accessibility is getting on a network while compatibility provides the common ability to consume and produce data. If this sounds familiar, that's because it is Metcalfe's Law and it rings true for IoT [10].

### **(c) DYNAMIC NATURE**

The primary activity of Internet of Things is to collect data from its environment, this is achieved with the dynamic changes that take place around the devices. The state of these devices change dynamically, example sleeping and waking up, connected and/or disconnected as well

as the context of devices including temperature, location and speed. In addition to the state of the device, the number of devices also changes dynamically with a person, place and time.

The state of devices change dynamically, e.g., sleeping and waking up, connected and/or disconnected as well as the context of devices including location and speed. Moreover, the number of devices can change dynamically [11].

### I. APPLICATIONS OF INTERNET OF THINGS(IOT)

Some useful applications of Internet of Things (IOT) are:

- (a) Connected Health
- (b) Smart City
- (c) Connected Cars
- (d) Smart Home
- (e) Smart Farming
- (f) Smart Retail
- (g) Smart Supply Chain

#### (a) CONNECTED HEALTH (DIGITAL HEALTH/TELE HEALTH/TELEMEDICINE)

IoT has many uses in the healthcare industry, including advanced & smart sensors, equipment integration, and remote monitoring tools. It might enhance the way doctors provide treatment while also keeping patients secure and healthy. Healthcare IoT can increase patient engagement and happiness by enabling patients to contact with their doctors more frequently. IoT in healthcare introduces new tools updated with the latest technology in the ecosystem that assists in producing better healthcare, ranging from personal fitness sensors to surgical robots. IoT advances healthcare and offers solutions that are affordable for both patients and healthcare professionals. [15][16].



Figure 1: Connected Health

**(b) SMART CITY**

Another potent Internet of Things application that is inspiring interest among people worldwide is smart cities. Smart city applications for the internet of things include improved energy management, automated transportation, water distribution, urban security, and environmental monitoring. IoT will address significant issues that city dwellers confront, such as pollution, traffic congestion, and a lack of energy resources. Products like the Smart Belly garbage, which has cellular connection capabilities, will notify municipal authorities when a bin needs to be emptied. [17].



Figure 2: Smart City

**(c) CONNECTED CARS**

The internal function optimization of automobiles has been the primary emphasis of automotive digital technology. But now, more focus is being placed on improving the in-car experience. A connected automobile is a vehicle that can use onboard sensors and internet connectivity to optimise its own operation, maintenance, and passenger enjoyment. The majority of major automakers are working on linked car solutions, as are several bold startups. Major companies are working to bring about the next automotive revolution, including Tesla, BMW, Apple, and Google. [18].

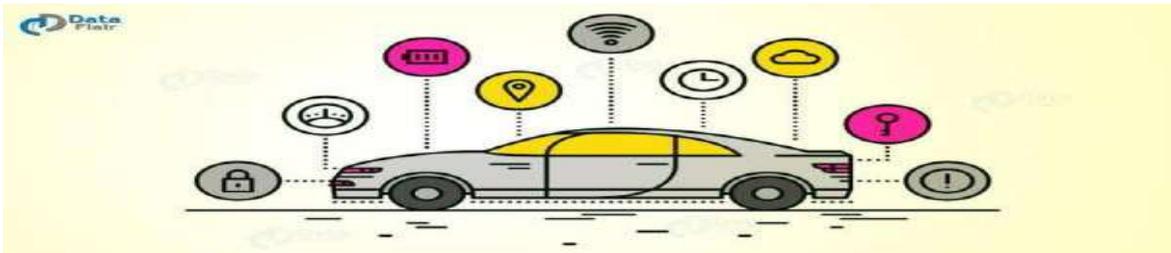


Figure 3: Connected Cars

**(d) SMART HOME**

Smart Home has become the revolutionary ladder of success in the residential spaces and it is predicted Smart homes will become as common as smartphones. Whenever we think of IoT systems, the most important and efficient application that stands out every time is Smart Home, ranking as the highest IOT application on all channels. The estimated amount of funding for Smart Home startups exceeds \$2.5bn and is ever growing. [11].



Figure 4: Smart Home

The cost of owning a house is the biggest expense in a homeowner's life. Smart Home products are promised to save time, energy and money. With Smart home companies like Nest, Ecobee, Ring and August, to name a few, will become household brands and are planning to deliver a never seen before experience [19].

**(e) SMART FARMING**

One IoT use case that is frequently disregarded is smart farming. However, because farmers typically deal with a huge number of remote farming operations and livestock, the Internet of Things can monitor all of this and transform how farmers conduct their business. But this concept hasn't yet attracted much attention. It is still one of the IoT applications, though, that should not be

taken lightly. Smart farming has the potential to be a significant application area, particularly in the nations that export agricultural products.



Figure 5: Smart Farming

**(f) SMART RETAIL**

Retailers have started adopting IoT solutions and using IoT embedded systems across a number of applications that improve store operations such as increasing purchases, reducing theft, enabling inventory management, and enhancing the consumer's shopping experience. Through IoT physical retailers can compete against online challengers more strongly. They can regain their lost market share and attract consumers into the store, thus making it easier for them to buy more while saving money [20].



Figure 6: Smart Farming

The potential of IoT in the retail sector is enormous. IoT provides an opportunity to retailers to connect with the customers to enhance the in-store experience. Smartphones will be the way for retailers to remain connected with their consumers even out of store. Interacting through Smartphones and using Beacon technology can help retailers serve their consumers better. They can also track consumer's path through a store and improve store layout and place premium products in high traffic areas [17].

## II. SECURITY CHALLENGES FACING IOT

IoT security is the protection of Internet of Things devices from attack. While many business owners are aware that they need to protect computers and phones with antivirus, the security risks related to IoT devices are less well known and their protection is too often neglected.

### (a) DATA INTEGRITY

An ecosystem that is connected with IoT and includes billions of devices is interconnected. The entire data that is sent and exchanged back and forth from the sensor to the main server will be manipulated if even one data point is altered. Digital signatures and a decentralized distributed ledger should be used to assure integrity. [23].

### (b) ENCRYPTION CAPABILITIES

The process of encrypting and decrypting data is ongoing. The IoT network's sensors are still unable to process data. Firewalls and separating the devices onto different networks can stop brute force attacks.

### (c) PRIVACY ISSUES

IoT is primarily focused on the interchange of data between various platforms, gadgets, and users. Smart devices collect data for a variety of purposes, including enhancing productivity and user experience, aiding in decision-making, delivering better service, etc.; as a result, the final destination of the data must be completely secured and protected.

## VI. CONCLUSION

Every layer of the IoT framework is open to assaults. As a result, there are several security threats and demands that must be met. The current status of IoT research is primarily focused on access control and authentication protocols, however due to the rapid advancement of technology, it is crucial to combine new networking protocols like IPv6 and 5G to achieve the progressive fusion of IoT topologies. This chapter's primary goal was to highlight important security challenges related to IoT, with a specific focus on security threats and their defences. Many IoT devices become easy targets due to a lack of security mechanisms, and even these are infected without the victim's knowledge. The security needs are covered in this chapter, including confidentiality, integrity, and authentication, etc. In this paper, different applications of IOT are discussed. By assisting in the identification of the key problems with IoT security and offering a better understanding of the threats and their characteristics originating from different intruders,

such as organizations and intelligence agencies, we hope that this paper will be helpful to researchers in the security field.

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## **A STUDY ON CUSTOMER ATTITUDE TOWARDS E- BANKING SERVICES AND THEIR SATISFACTION IN CHENNAI DISTRICT**

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Banks of present times are exposed to competitive milieu under constant duress from globalization, liberalization and privatization. They were looking for unflinching support system like what the character of Horatio provided to Hamlet, the crown prince of Denmark in Shakespearian play. Information Technology has come to fill the breach providing what the banking industry has been looking for. It has effected sweeping changes in the banking industry throwing manual pen and ledger to the winds by click and monitor. The emergence of E-Banking, it seems, may provide panacea for all the ailments of banking industry. E- Banking is providing services and products through electronic media such as telephone, Internet and the mobile.

Though we challenge the west by other technological advancements, the credit to GDP ratio shows banking sector is the weakest in our country. Banking industry is exposed to dual challenges of deeper penetration and higher growth. This can be realized only with the help of technology. E-Banking has already made inroads into unforbidden grounds. After the advent of IT, almost all our activities are done electronically. The Indian customers use ATM and Net banking effortlessly and with confidence.

The IT Act 2000, enacted by the Government of India provides legal sanction to E-Commerce. RBI is now the regulator and supervisor of the financial system dominated by technology. RBI issues directions and guidelines to mitigate the risks in E-Commerce and to employ adequate control mechanisms.

Statement of the problem,

Both private and public sector banks in India are organized and structured. The study will help banks in clearing the clouds around perception and expectation of the customer. Banks can draw up measures to improve customer relationship.

E-Banking has different risks. These risks are to be monitored cautiously. Moreover, the technology should remain cost effective and customer friendly. The following questions loom large before us and the present study is to find out answers for the same.

Why are people drawn towards E-banking?

Why do they prefer E-Banking?

What are the problems encountered by the customers in E- Banking?

How can the customers satisfaction be known?

Objectives of the study

The broad objectives of the study are as follows.

- ❖ To know the reason why people, use E-banking services
- ❖ To find out the factors influencing customer satisfaction in the use of E-Banking
- ❖ To identify the major disturbing elements faced by the Customers in their use of E-Banking services

#### **1.4 RESEARCH METHODOLOGY**

Data and sources of data, methodology, sample selection are discussed in the following paragraph.

##### **DATA AND SOURCES OF DATA**

This project has used both primary and secondary data while primary data have been collected through by well-structured questionnaire the secondary data have been obtained from books and internet.

##### **PRIMARY DATA:**

After careful consideration a questionnaire was drafted and through the same tool the data required were collected from customers of various banks in Chennai area using E-banking

The data collected is for the year 2022.

## **METHODOLOGY**

The questionnaire has questions relating to personal profile, frequency of Visiting banks for banking purposes, customer satisfaction in E- banking services and problems encountered in e-banking and so on.

Sample: convenient sampling method of selecting 100 customers using e- banking from public and private in Chennai area form the base for the sample study.

This study and its findings will help the banks about the quality of their e banking services, satisfaction level of the customers and the difficulties faced by the customers in the use of E- banking.

The study may provoke banks to conduct aggressive awareness program in rural and semi urban areas driving the advantages of E- banking into the minds of customers.

The customers will learn about the various aspects and facilities of E-banking and to wipe of problems faced by them in e-banking from such awareness programme.

### Limitations of the study

- ❖ As the response for sample were selected in Chennai area, the information cannot be used in other areas.
- ❖ Since the information was collected from the respondents, the analysis can never be matched with other areas and other factors.

The results is only for the study period

The respondents opinion may keep changing from time to time.

### Review of Literature

Abdul muti Rida Irshaid (2015 ) customers satisfaction

The study discusses the electronic banking services (EBS) offered by Jordanian banks and their customers satisfaction. A sample of 50 question booklets were distributed to customers. The study unravels a significant relationship between the EBS and the educational level of the customers.

Gbadeyen R. A and Akinyosoye O.O – Gbonda (2011)

The study tries to examine whether there is any influence of quality of services for the customer's choice of banks.

A sample 400 respondents were supplied with the questionnaire and only 360 returned completing the same. The analysis of data was done using Chi – square and correlation. In conclusion the paper cites that e- banking is of paramount important in banking industry.

HansH...Bauer, Maik Hammerschmidt and Tomas Falk (2004) E Banking Portals.

This study investigates into the services and characteristics that change a website into portal and the factors that influence the customers evaluation of the portals service quality. The authors arrived at a measurement model for the construct of a web portal and the requisite dimensions are security and trust, basic service quality, cross- buying services quality , added value, transaction support and responsiveness. The dimensions classified into three service categories are as follows. Core services, additional services and problem solving services.

Ogunlowore Akindele John, Oladele Rotimi (2013) satisfaction in Nigeria. This study examines the impact of electronic banking on customer satisfaction of corporate banks in Nigeria well-structured questionnaire were supplied to 100 respondent and the data obtained was analyzed by descriptive statistics. The study discloses a significant relationship between e banking and customer satisfaction.

Rangsan Nochai and titida .Nochai (2013) a case study in Bangkok 450 questionnaire were distributed to respondents to collect data by using quota sampling. multinomial logistic regression analysis was used to analyse the data . The study submitted recommendation to the banks to increase the accuracy of transactions and to provide 24x7 days services with sufficient staff strength allowing easy customer contact.

Simon Gyasi Nimako, Nana Kwame Gyamfi, Abdil Mumuni Moro Wandaogou (2013 ) Ghanain banking industry. This study tries to find out the impact of internet baking services quality (IBSQ) on customer satisfaction (CS) Data collected from 200 respondents were analyzed using SPSS 16.0 . Oneway Anova was applied to establish differences in satisfaction among demographic sub groups. The study recommends the improvement of internet banking quality. The improvement in internet quality will allow the customers to stick to the same bank and will not go astray searching for better IBSQ.

Ala Eddin Mohd khalaf Ahmad, Dr.Hasan Ali Al—Zu’bi (2011) customer satisfaction an empirical investigation.

The study tries to find out the impact of E –banking on the outcomes of customer Satisfaction and how E-banking has been adopted into banking industry. The sample technique was purposive to fix 179 customers.

The research has concluded that the adoption of E-banking has a positive effect on customer satisfaction.

Geetha K.T. & Malarvizhi V (2012) in India

This investigation study shows security and privacy issues hamper the acceptance of E- banking in Indian context. Through well-developed questionnaire from 200 respondents primary data was collected. The study uses descriptive statistics to explain demographic profile of the customers. Factors and Regression analysis showed security, privacy and awareness level increase the acceptance of E- banking. This indicates that privacy and safety of accounts of E-banking world draw more customers.

Muthukrishnan B , Ramadevi D, Dr. S.A. Senthil Kumar (2013) customer satisfaction.

The study is to understand the service quality and customer satisfaction level in E-banking services. A sample size 60 was put to mean score and T-test for statistical analysis. This purposive sampling is categorical that transfer of funds through E-banking is faster compared to manual system. The study concludes that customers are deeply satisfied with E-Banking services.

Navneet Kaur and Ravi Kiran (2015) consumer in India.

This study tries to understand the operation of E-Banking in public, private and foreign banks and also to ascertain the level of penetration of E- banking in all the three types. Further the study tries to find out if there is a difference in service quality. Four hundred questionnaires were used to collect primary data and the data was put to statistical analysis using factor analysis, Regression and Anova . The findings suggest that improvement in service quality would motivate the customer loyalty.

<b>Age</b>	<b>Respondents</b>	<b>Percentage</b>
Below 20 years	8	8
21 - 25 years	72	72
Above 25 years	20	20
<b>Total</b>	<b>100</b>	<b>100</b>
<b>Gender</b>	<b>No. of Respondents</b>	<b>Percentage (%)</b>
<b>Male</b>	<b>55</b>	<b>55</b>
<b>Female</b>	<b>45</b>	<b>45</b>
<b>Total</b>	<b>100</b>	<b>100</b>

<b>Place</b>	<b>No. of Respondents</b>	<b>Percentage</b>
Rural	40	40
Semi Urban	22	22
Urban	38	38
<b>Total</b>	<b>100</b>	<b>100</b>
<b>Marital Status</b>	<b>No. of Respondents</b>	<b>Percentage</b>
Married	52	52
Un Married	48	48
<b>Total</b>	<b>100</b>	<b>100</b>
<b>Educational Qualification</b>	<b>No. of Respondents</b>	<b>Percentage</b>
UG Degree	20	20
PG Degree	44	44
Professional Degree	34	34
Others	2	2
<b>Total</b>	<b>100</b>	<b>100</b>
<b>Total Monthly Income</b>	<b>No of Respondents</b>	<b>Percentage</b>
Below Rs 30,000	23	23

Rs 30,001- Rs 50,000	32	32
Rs 50,001- Rs 60,000	15	15
Rs 60,001- Rs 70,000	24	24
Above Rs 70,000	6	6
<b>Total</b>	<b>100</b>	<b>100</b>

### ADOPT E-BANKING SERVICES

<b>Important to adopt E-Banking services</b>	<b>SA</b>	<b>A</b>	<b>N</b>	<b>DA</b>	<b>SDA</b>	<b>WEIGHTED SCORE</b>	<b>RANK</b>
Services are faster than traditional banking	57	32	6	3	2	<b>4.39</b>	<b>1</b>
Services have no Time limit	20	63	13	2	2	<b>3.97</b>	<b>3</b>
High degree of Convenience	12	56	28	1	3	<b>3.73</b>	<b>4</b>
Changes are easier to use than traditional	31	51	10	5	3	<b>4.02</b>	<b>2</b>
Generally cheaper than Traditional banking	14	49	32	4	1	<b>3.71</b>	<b>5</b>
More prestigious than queuing at the bank halls	22	43	23	3	9	<b>3.66</b>	<b>6</b>

**Source: Primary Data**

## SATISFACTION LEVEL OF E-BANKING SERVICES

Satisfaction Level of E-Banking services	SA	A	N	DA	SDA	WEIGHTED SCORE	RANK
Promptness of card delivery	51	38	6	3	2	4.33	2
Number of Transaction	21	60	13	5	1	3.95	5
The quality of notes(Currency)	12	59	25	1	3	3.76	6
Conveniently located	42	41	9	5	3	4.14	3
Account information and balance enquiry	14	49	32	4	1	3.71	8
E-Payments	22	31	35	3	9	3.54	11
Account to account transfer	57	32	6	3	2	4.39	1
Due installment enquiry	20	12	63	3	2	3.45	12
Statement request (by email, fax)	12	56	28	1	3	3.73	7
Mobile Payment	31	51	10	5	3	4.02	4
SMS alerts about specific information to the bank	14	49	32	4	1	3.71	8
Transaction status	21	44	20	6	9	3.62	10
Interest free EMI options	27	59	6	5	3	4.02	4
Helps in solving financial constraints	18	14	52	10	6	3.28	13
Offers provided by bank for credit usage (Incentives, Discounts)	22	43	23	3	9	3.66	9

**Source: Primary Data**

### **AGE OF THE RESPONDENTS COMPARED WITH MAINTENANCE OF BANK ACCOUNT**

**(TWO WAY TABLE)**

<b>AGE</b>	<b>Maintenance of Bank Account</b>			<b>Total</b>
	<b>Below 2 Yrs</b>	<b>21 - 25 years</b>	<b>Above 25 years</b>	
Below 20 years	2	4	2	8
21 - 25 years	50	15	7	72
Above 25 years	12	2	6	20
<b>Total</b>	<b>64</b>	<b>21</b>	<b>15</b>	<b>100</b>

**Source:** Primary data

**Null Hypothesis (Ho):** There is no significant association between Age and maintenance of bank account

### **INFERENCE**

<b>FACTOR</b>	<b>CALCULATED VALUE</b>	<b>TABLE VALUE</b>	<b>DEGREE OF FREEDOM</b>	<b>REMARKS</b>
Age & Maintenance of Bank Account	11.51	9.48	9	Significant 5%

It could be observed from the above table the calculated Chi Square value (11.51) is more than the table value (9.48) and the result is significant. Hence the hypothesis “age of the respondents Maintenance of Bank Account is associated. From the analysis, it is concluded that there is a significant relationship between age of the respondents and Maintenance of Bank Account.

### **GENDER OF THE RESPONDENTS COMPARED WITH MAINTENANCE OF BANK ACCOUNT**

With a view to find the degree of association between age of the respondents compared with Maintenance of bank account a two table was prepared and illustrated as below.

TABLE NO: 4.21

**GENDER OF THE RESPONDENTS COMPARED WITH MAINTENANCE OF BANK ACCOUNT**

(TWO WAY TABLE)

Gender	Maintenance of Bank Account			Total
	Below 2 Yrs	21 - 25 years	Above 25 years	
Male	45	4	6	55
Female	19	17	9	45
<b>Total</b>	<b>64</b>	<b>21</b>	<b>15</b>	<b>100</b>

Source: Primary data

**Null Hypothesis (Ho): There is no significant association between gender and maintenance of bank account**

**INFERENCE**

FACTOR	CALCULATED VALUE	TABLE VALUE	DEGREE OF FREEDOM	REMARKS
Gender&Maintenance of Bank Account	14.50	5.99	2	Significant 5%

It could be observed from the above table the calculated Chi Square value (14.50) is more than the table value (5.99) and the result is significant. Hence the hypothesis "Gender of the respondents Maintenance of Bank Account is associated. From the analysis, it is concluded that there is a significant relationship between gender of the respondents and Maintenance of Bank Account.

Conclusion:

The banking sector is singularly interested in providing hassle free E-Banking to customers. Customers satisfaction is the parameter of its success in a highly competitive environs. Though satisfaction, pleasure, dis appointment are personal, E-banking tries for accommodation of these to develop consumer friendly approach.

E- Banking is moving away from product based to customer based attitude. Internet has opened up the wealth management decisions and the customers decides the products and services. Through banks can deliver the products and services swiftly, they have to improve the customer touch constantly for client retention.

Banks have to conduct customer survey periodically and customer views are to be assimilated for easy operations of the E-banking websites.

## A STUDY ON HRM PRACTICES AND ITS IMPACT ON JOB SATISFACTION AND ORGANIZATION PERFORMANCE IN BPO SECTOR, CHENNAI

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### ABSTRACT

The reason for this investigation was to look at the effect of HRM rehearses on work fulfillment and authoritative execution in BPO (Business Process Outsourcing) associations in Chennai. In particular, the investigation inspected HRM rehearses that are under the influence and duty of bosses and directors. The example size for the investigation is 245, by embracing purposive testing procedure. The exploration discoveries show that there is sure connection between HRM rehearses, Job fulfillment and association execution.

**KEYWORDS:** HRM Practices, Job Satisfaction, Perceived Organization Support and BPO.

### INTRODUCTION

Because of the vulnerability of the financial condition, associations are encountering enormous changes in the interest for the items and administrations they give and are feeling the squeeze to improve execution so as to accomplish authoritative objectives and goals. This has expanded the requirement for associations to improve the manner in which they convey administrations, yet in addition to look at their practices, authoritative strategic objectives, execution goals, and execution measures (Begum and Mohamed, 2016). In the present business world, representative maintenance is one of the much discussed themes and recognizing the purposes behind worker turnover and executing the essential approaches to hold workers can be vital. That is the reason an enormous volume of past explores has been done on this territory. Holding countless gifted representatives inside an association will give a significant wellspring of serious edge for an association (Mahmood and Zafar, 2016). At present most associations rival each other through actualizing interesting HRM rehearses and because of globalization

associations can receive the most exceptional HRM rehearses so as to achieve authoritative objectives. Utilizing the best HRM rehearses is beneficial for both representative and business, and it assumes a significant job in the valuable development of the association (Jeet and Sayeeduzzafar, 2014). Human asset the board rehearses mean the administration of individuals inside the inward condition of associations, and includes the exercises, strategies, and practices engaged with arranging, getting, creating, using, assessing, keeping up, and holding the proper numbers and expertise blend of representatives so as to accomplish the association's destinations. Today numerous associations are feeling the squeeze to improve execution. Associations are encountering gigantic changes in the requests for items and administrations they give. This has expanded the requirement for associations to improve the manner in which they convey administrations, yet in addition to inspect their practices, hierarchical crucial objectives, execution targets, and execution measures. In this way, there is another accentuation on the human variables related with hierarchical objectives and execution (Becker and Gerhart, 1996; Carnevale, 2003; Denhardt and Denhardt, 2003).

### **A Historical Overview of Developments in the Indian BPO Sector**

The adjustments in the Indian economy throughout the most recent 15 years or so have been answerable for the development of the data innovation segment and, from that point onward, the BPO business. From its autonomy in 1947 to 1991, India received a "blended economy" approach (underlining both private and open endeavor) which viably diminished business and worldwide intensity both essential for national development. In spite of the conventions of much brought together anticipating decades, the Indian economy neglected to arrive at its latent capacity and, truth be told, wound up in a real predicament in 1991. India encountered a twofold digit pace of inaction, decelerated modern creation, an exceptionally high proportion of acquiring to the GNP, and a horridly low degree of outside trade holds. Outside stores turned out to be low to the point that they were scarcely ready to meet the expense of three weeks' imports. The Indian government vowed gold to the Bank of England to meet the nation's outside trade necessities. The World Bank and the IMF consented to rescue India depending on the prerequisite that it transformed from a directed system to a "free market economy." To address these difficulties, the legislature reported a progression of financial arrangements starting with the depreciation of the rupee, trailed by new mechanical, scald, and exchange approaches. Various changes were made in the open part, and powers over the financial segment and outside speculations were changed. Since these changes, the economy has gotten dynamic and lively, and outside speculations have

quickeness essentially. The World Bank conjectures that by 2020 India could turn into the world's fourth biggest economy (Budhwar, 2001; Kapur and Ramamurti, 2001).

## REVIEW OF LITERATURE

As indicated by **Lee (2017)**, participative administration can improve work fulfillment. Lee's investigation investigated the connection between participative administration and employment fulfillment in neighborhood government offices. To improve the investigation, the analyst utilized four control factors: collaboration experience, organization enrollment, position, and long periods of work. The ramifications of this investigation are that it exhibited significance of the utilization of participative administration as a HRM practice that will improve work fulfillment and authoritative execution. **Ross (2016)** characterizes human asset the executives as a thorough way to deal with overseeing individuals that goes past the customary staff capacities. She contends that HRM has two destinations: the inspiration and advancement of the workers and the presentation and efficiency of the association. Except if bosses and supervisors create and execute viable HRM rehearses, the association won't arrive at these destinations. The writing on HRM rehearses is broad and incorporates practices, for example, enlisting, choice, remuneration, and employment plan that are as yet organized and constrained by human asset offices. The ongoing pattern, be that as it may, is toward the devolution of numerous HRM practices and obligations to line directors and administrators. This audit talks about those practices that have consistently been the duty of line chiefs and supervisors and will address rehearses that have been devoluted to line by human asset offices (HRD). As per **Drucker (2012)**, correspondence is a vital piece of the executives. He contended that multidirectional correspondence is basic for plainly characterizing the chiefs' desires. Authoritative correspondence is the procedure that an association uses to impart to workers the association's crucial, desires, and results. Thus, compelling correspondence brings about higher occupation fulfillment, spirit, responsibility, and hierarchical execution (**Lee, 2006; Penley and Hawkins, 1985; Sprague and del Brocco, 2002**). Supervisory authority is conduct that gives guidance and urges others to make a move. This incorporates discernments held by representatives about the degree of supervisory help, work assistance, and group building. This HRM factor shows usually perceived authority styles that are perceptible in the everyday workplace of line activities in numerous open associations. These pioneers (director and chiefs) basically settle on choices and force those choices on subordinates. As per **Barber (2010)**, in spite of the fact that analysts have introduced a plenty of research on work fulfillment, they have distributed moderately little writing about human administrations representatives. In his

investigation of a state social protection office, he found that laborers were disappointed with their employments. He further inferred that an adjustment in the executives' way of thinking toward persuading and assessing workers is fundamental to the improvement of execution and therefore expanded employment fulfillment.

### **STATEMENT OF THE PROBLEM**

The chiefs and managers in BPO Part concentrate their endeavors toward guaranteeing that objectives and goals of the association are met by conveying administrations adequately and productively. Therefore, HRM practices, for example, correspondence, strengthening, inspiration, participative administration, prize and acknowledgment, supervisory authority, and preparing and advancement might be missing from line tasks. Along these lines, regard for the necessities of the organization's most important asset, its workers, might be restricted. Research on the connection between HRM rehearses, work fulfillment, and hierarchical execution is deficient in the writing. Besides, not many examinations have investigated the connection between HRM rehearses utilized by bosses and directors in a help area. This investigation will be valuable for heads with data to settle on better choices about the job of and consideration of chiefs and directors in the HRM framework.

### **OBJECTIVES OF THE STUDY**

1. To contemplate the association culture of chose BPO associations in Chennai.
2. To quantify the HRM rehearses in chose BPO associations
3. To foresee the degree of worker work fulfillment and saw association execution
4. To distinguish the bury connection between association culture, HRM rehearses, Employment fulfillment and saw association execution.

### **RESEARCH METHODOLOGY**

The example populace for this investigation depended on purposive testing. This inspecting procedure was fitting on the grounds that the specialist was keen on analyzing the view of the objective gathering with unmistakable encounters and ranges of abilities. The overview instrument considered for the examination is survey. The poll comprises of individual data of the respondents as Part I. In the part II, the survey comprises of measurements identified with the investigation. The measurements are Association culture, HRM rehearses, and Employment fulfillment lastly saw association execution. In the HRM rehearses measurements the measurements included are Correspondence, Strengthening, Inspiration, Participative dynamic, Execution assessment, prize

and acknowledgment, Supervisory authority and Preparing and advancement. The Likert five scaling method was considered for the investigation. A Likert-type scale speaks to ordinal degree of estimation. This kind of scale is regularly used to quantify the assessments and mentalities of people. The representatives working in BPO segment in Chennai were considered as the number of inhabitants in the examination. In Chennai there are three driving BPO associations are there, in which representative working in the BPO association and having generally speaking working involvement with BPO industry for over a year are thought of. The reason for the examination was disclosed to the potential recognized workers, once the acknowledged to take an interest in the overview, survey was appropriated. The survey was disseminated to the workers who satisfied the examining outline criteria. In the outcome 249 poll were returned, in which 245 was completely finished. The examination is restricted just estimating the job of director and supervisors in actualizing HRM practices, and its impact on work fulfillment and saw association support.

**RESULTS AND DISCUSSION**

The connection between Association Culture, HRM rehearses, Job Satisfaction and Perceived Organization Support.

Table-1 **Relationship between BPO Sectors**

<b>Particulars</b>		<b>Organization Culture</b>	<b>HRM Practices</b>	<b>Job Satisfaction</b>	<b>Perceived Organization Support</b>
Organization Culture	<b>Pearson Correlation</b>	1	.615**	.555**	.398**
	<b>Sig. (2-tailed)</b>		.000	.000	.000
	<b>N</b>	245	245	245	245
HRM Practices	<b>Pearson Correlation</b>	.615**	1	.660**	.475**
	<b>Sig. (2-tailed)</b>	.000		.000	.000
	<b>N</b>	245	245	245	245
Job Satisfaction	<b>Pearson Correlation</b>	.555**	.660**	1	.567**
	<b>Sig. (2-tailed)</b>	.000	.000		.000

	<b>N</b>	245	245	245	245
Perceived Organization Support	<b>Pearson Correlation</b>	.398**	.475**	.567**	1
	<b>Sig. (2-tailed)</b>	.000	.000	.000	
	<b>N</b>	245	245	245	245

Sources: Primary Data

**INTERPRETATION**

The above table shows that association culture has high relationship (.615) with HRM practices of the association and employment fulfillment (.555) and its critical (.000). The measurement HRM rehearses are exceptionally corresponded with all the measurements and noteworthy. The measurement work fulfillment likewise exceptionally related with all measurements and was critical at (.000). The resultant measurement hierarchical execution shows that it is respectably corresponded with association culture (.398), and its noteworthy at (0.000) level. The measurement saw hierarchical execution is exceptionally related with HRM practices and occupation fulfillment.

**MULTIPLE REGRESSIONS**

Circumstances and logical results between HRM Practices, Organization Culture, Job Satisfaction and saw association execution.

Table-2 **Multiple Regressions**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.913	.835	.831	.309

Sources: Primary Data

**INTERPRETATION:**

The R esteem shows that the entomb connection between Organization Culture, Job fulfillment and HRM rehearses support was exceptionally associated. The R square worth shows that the indicators anticipate HRM rehearses 83%.

**Coefficients**

Table-3 **Coefficients Analysis**

Model	Un-Standardized Coefficients	Standardized Coefficients	t-Value	Sig
-------	------------------------------	---------------------------	---------	-----

	B	Std. Error	Beta		
<b>Constants</b>	.371	.079		4.789	.000
<b>Organizational Culture</b>	.260	.035	.329	7.608	.000
<b>Job Satisfaction</b>	.262	.040	.330	6.615	.000
<b>HRM Practice</b>	.313	.039	.389	8.207	.000

Sources: Primary Data

### INTERPRETATION:

The coefficient table shows that HRM rehearses are the most grounded indicator of saw association backing and it is exceptionally huge at (0.001) level of noteworthiness. The activity fulfillment of the representatives is the second most grounded indicators of saw association execution and it is profoundly huge at (0.001). Among the consider indicators association culture has the most minimal beta stacking and it is huge at (0.001) level.

### FINDINGS OF THE STUDY

1. The sexual orientation astute order shows that 53% of the respondents were male and the staying 47% of the respondents were female.
2. The age gathering of the respondents shows that 40% of the respondents fall underneath 30 years.
3. The month to month pay shows that 50% of the respondent's pay lies underneath Rs.30,000.
4. The training capability shows that lion's share 55% of the respondents were under alumni.

### IMPLICATIONS OF THE STUDY:

The chiefs and managers must make a stage for their workers to show their advancements and imagination intermittently, which make the representatives to thoroughly consider of the ways and bring their own thoughts for the better execution of the association. The evaluation ought to be taken intermittently, the exhibition ought to be estimated in all viewpoints, when the chiefs or Manager recognize the representative is deficient specifically aptitudes, that specific worker ought to be sent to preparing program, to prepare themselves. The directors and administrators ought to empower workers on self-awareness and development. Inside the association there ought to be constantly transparent correspondence between the representative and chiefs. The directors and supervisors should work intimately with the worker in accomplishing the association targets and objectives.

## CONCLUSION

The investigation distinguished the job of Supervisors and Managers in BPO associations in overseeing those delicate HRM rehearses. Alongside it, the investigation likewise recognized the job of HRM rehearses in impacting work fulfillment and authoritative execution in BPO associations. The examination reasoned that job of directors and Managers assume a significant job in actualizing HRM rehearses inside the association.

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# A STUDY ON CONSUMER ATTITUDE AND THEIR SATISFACTION TOWARDS AMAZON WITH SPECIAL REFERENCE TO VELLORE DISTRICT

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## **ABSTRACT**

Due to the expanding scale of the global market, businesses focused on both manufacturing and services are now more quick to adopt novel marketing approaches in order to outperform their rivals. The traditional marketing strategies are becoming more commonplace as the scope of selling a product is generally expanded. As a result, the internet market is flourishing, and customers are now behaving differently depending on whether they are making purchases or putting orders online. The internet's quick development has significantly impacted a significant impact global marketing conditions. Currently, it has become one of the most well-liked methods for companies and customers to conduct business online. Businesses have been developing innovative ways to advertise online. As a result, it explains how modern markets are displacing traditional markets. This research is being done to determine what motivates brand loyalty. In general, the outcome of online buying mostly focuses on how happy the buyer is with their purchase. Our research suggests that service providers should prioritize improving service quality and customer loyalty to achieve customer pleasure, which breeds achieve customer pleasure, which breeds customer loyalty, service providers should prioritize improving service quality and customer loyalty.

**KEYWORDS:** Customer satisfaction, online shopping, product quality, customer service, brand loyalty.

## **INTRODUCTION**

Through the use of a search engine or a mobile app, customers may directly purchase products or services from sellers through the Internet through online shopping. Customers may locate a desired

product by going to the retailer's website directly or by utilizing a shopping search engine to look for alternative vendors. Shopping search engines show the availability and price of the same goods at several e-retailers. By 2020, clients will be able to purchase online utilizing a variety of computers and gadgets, such as desktops, laptops, tablets, and smartphones computers. Business-to-consumer (B2C) e-commerce is the act of purchasing goods or services from an online store in a manner physically similar to visiting a traditional "brick-and-mortar" store or shopping mall. Business-to-business (B2B) online purchasing is the process of setting up an online store to allow companies to purchase from other businesses. A typical online shop allows the user to explore the selection of goods and services offered by the business, examine pictures or photographs of the goods, and access details such as pricing, features, and functionality.

### **OBJECTIVES OF STUDY**

1. To know about customer satisfaction towards amazon in Vellore district.
2. To identify what type of product are sold in amazon.
3. To know the attractive activities to make a buying decision towards amazon online shopping.
4. To know that offers in online shopping are motivating to buy more product in amazon.
5. To know the customer service and customer satisfaction towards amazon.

### **SCOPE OF THE STUDY**

- ✓ To know their brand loyalty.
- ✓ To know about which purchase type people prefer most.
- ✓ To find out the reason for purchasing products.
- ✓ To know the money range those customers prefer most.
- ✓ To know the different payment and delivery system preferred by the customers.

### **NEED FOR THE STUDY**

This survey is being undertaken to gather data for my study on "the Success of E-commerce Website ,analyze customer satisfaction in online shopping and also identify the wants and needs of the consumers towards amazon in online shopping.

### **LIMITATIONS OF STUDY**

- ✓ The study is confined to Vellore district.

- ✓ The data was using limited tools for analyzing the data.
- ✓ The study conducted on customer satisfaction in online shopping towards amazon website only.
- ✓ The sample size was limited to 60.

## REVIEW OF LITERATURE

**Gupta & Bhatnagar (2017)** conducted this seminal work to assess online shopping behaviour among the students. Results showed that Amazon, Flipkart, Snapdeal, and Jabong are the major online portal to purchase desired products. It was found that availability of variety of products, price and timely delivery are the reason motivated them to purchase product in online. Furthermore, they highly preferred to buy books, footwear, gadgets, and clothing in online shopping. Findings showed that in most occasions they faced the problems of fraud while making payment in online shopping. Results informed that ease of use, customer service and unique feature are the most significant dimensions in online shopping. Festive seasons, discounts, offers and low price are motivates students to purchase products in online shopping. It was concluded that various payment options motivates them to purchase online products [1].

**Saroj (2018)** aimed to assess online retailing trend and future growth opportunities in India. The study showed that consumers are highly becoming well-known with online and digital transactions. It was found that online retailing have opened up for consumers with different product and services. Ease of use and convenience of internet helps to buy anything from the online retail store. In addition to that secured payment options may promote customers to transact online with less hesitation. Findings showed that payment options, discounts, choice and convenience drive the consumers to go for online shopping. Moreover, price, wider selection, accessibility and replacement options also shape the consumer behaviour. It was concluded that online retailers understand the needs of consumer and their shopping habit to serve them better with stylish products [2].

**Vidya & Selvamani (2019)** examined the consumer behaviour towards online shopping with product dimensions. The study considered the product dimensions like product reviews, repeat purchase, payment mode, brand, duration,

delivery time, quality, information, price, and product comparison. Findings showed that online shoppers are highly satisfied with the online shopping practice. It was also found that customers are benefitted with cost, product offers, delivery, low formalities, convenience, and so on. Findings also disclosed that product dimensions [3].

**Kumar & Gopinath (2019)** attempted to measure customer satisfaction towards Amazon. The study focused to assess buying pattern, satisfaction, customer loyalty in online shopping. The study showed that customer can purchase any product from online like electronic goods, toys, hardware and software, household appliances, books and so on. The study showed that personalization, trust, responsiveness, reliability, website designs are the important considerations in online shopping. Findings showed that consumers are highly satisfied with Amazon because of its website quality and ease of use. Furthermore, customers are satisfied with the safety aspects, innovation, quality of product, product availability, and so on concerning online shopping. In conclusion, it was found that customers are satisfied with different dimensions of product, service, safety and customer welfare provided by the Amazon to its customers [4].

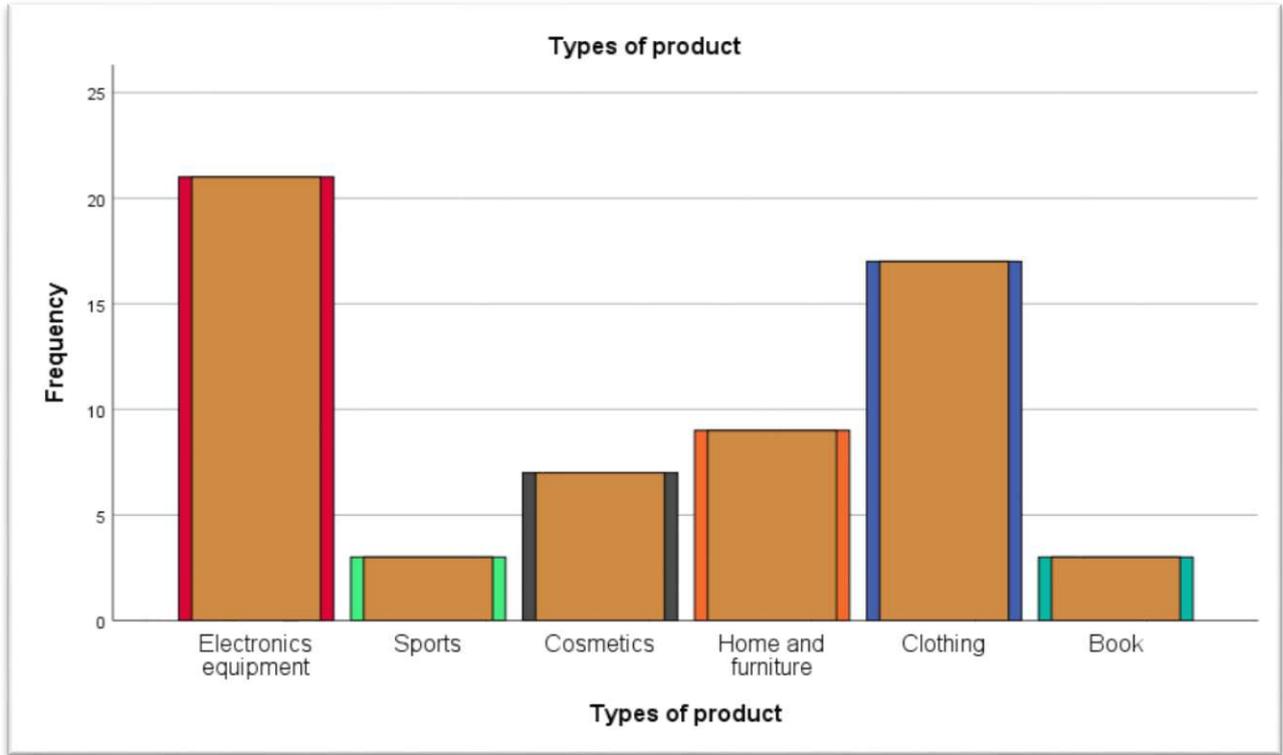
## RESEARCH METHODOLOGY

The collection of questionnaire from the undivided Vellore district includes Ranipet, Vellore, Ambur, Vaniyambadi, Tirupattur, and Gudiyattam. A Sample of 60 respondents was taken into consideration for my study and data was collected. To study the survey using convenient samples. A convenience sample is a type of non –probability sampling method where the sample is taken from a group of people easy to contact or to reach. The primary data was collected by using Questionnaire. The data will be analyzed using statistical methods including Friedman ranking test and Chi-square test.

## TYPES OF PRODUCT BOUGHT ONLINE IN AMAZON

Sl. No.	Types of products	No. of Consumers	Percentage
1.	Electronics equipment	21	35.0
2.	Cosmetics	7	5.0
3.	Sports	3	11.7
4.	Home and furniture	9	15.0

5.	Books	3	28.3
6.	Clothing	17	5.0
	Total	60	100



**LEVEL OF CUSTOMER SATISFACTION TOWARDS AMAZON**

**Friedman Test**

Ranks	
	Mean Rank
Gender	1.45
Types of product	2.08
Customer satisfaction	2.47

Test Statistics <sup>a</sup>	
N	59
Chi-Square	40.890

df	2
Asymp. Sig.	.000
a. Friedman Test	

### Interpretation

The chi-square (df= 2, N= 59) =40.890,  $p < 0.05$  shows that null hypothesis is rejected.

### CHI-SQUARE TEST

variables	Chi-Square values	P Values	Significance
Age	2.256	0.711	Not Significant
Gender	2.285	0.684	Not Significant
Monthly Income	1.588	0.691	Not Significant
Occupation	12.998	0.011	Significant
Educational Qualification	0.435	0.940	Not Significant
Customer satisfaction	12.801	0.046	Significant

Significant level of 0.05%.

With a P-value of 5% or less, the table shows that occupation and customer satisfaction are significantly related to respondents' when they shop online. Age, gender, monthly income, and educational level all show little variation in internet shoppers. This means that the null hypothesis for these variables has been accepted.

### FINDINGS OF THE STUDY

- ✓ Majority 32% of the respondents are male.
- ✓ The higher 68% of the respondents are falling the category under 31-40 years age group.
- ✓ Majority of 35% of the respondents purchase type of product is electronic equipment
- ✓ Majority of 48% of the respondents visited Amazon webpage.
- ✓ 79% of the respondents get motivated to buy product in amazon due to return policy.
- ✓ 50% of the respondents prefer for product quality.
- ✓ 22% of the customers also motivate for delivery on time.
- ✓ Majority of 71.1% respondents form UG &PG students.

- ✓ 31.7% of the respondents are earning the monthly income below less than 20,000.

## **SUGGESTIONS**

Considering pricing is such an important factor in purchasing decisions, the online vendor must make every effort to offer products at competitive prices. Customers prefer to pay by cash on delivery for their purchases, but some products do not offer this option, and customers receive damaged packaging deliveries. These difficulties must be addressed in order to enhance the efficiency of e - shopping. This issue must be thoroughly studied, investigated, and resolved. Customers' nervousness about making online purchases with a credit card is growing. Credit card usage would be minimized if businesses and banks collaborated to provide banks with direct access to online accounts.

## **CONCLUSION**

Customers are king of any business. All the E-portal must fulfill the needs and wants of customers in online shopping. Delivery on time, offers and return policy make motivated to buy products in amazon online shopping. Electronic equipment's are mostly purchased product by consumers in amazon. Customer's satisfaction in buying amazon for quality, security of payment methods, ease of use, trust and customer services. Product quality and return policy are attracted to customers to make a purchase decision in amazon website. Customer service have impact on customer satisfaction which increasing customer to buy more product in online in Vellore district. Customer satisfaction varies from customer to customer like same product colour they have receive, damaged product delivery and customer service keeps on changing through products and services getting from amazon online shopping in Vellore district.

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**AN INVESTIGATION INTO THE IMPACT OF DEMOGRAPHIC  
FACTORS ON ONLINE SHOPPERS' TO CHANGE BUYING HABITS  
WITH A FOCUS ON THIRUVANANTHAPURAM.**

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**ABSTRACT:-**

Online shopping was used as a medium for communication and electronic commerce, it was to increase or improve in value, quality and attractiveness of delivering customer benefits and better satisfaction, that was why online shopping was more convenience and day by day increasing its popularity. Not only benefits but also risk was associated with online shopping. Generally speaking internet users avert online shopping because of credit-card fraud, lack of privacy, non-delivery risk, lack of guarantee of quality of goods and services. Concerned authorities were devising policies to minimize the risk involved in e-business. This articles study that how the demographic factors influence the change the buying behaviour of online shoppers. Sample design is taken on the basis of Frequently buying people were taken as respondents. Random sampling method was adopted for data collection. Sample size is selected on the basis of The study area had been selected from Thiruvananthapuram districts in hundred organished sectors employment online shoppers were selected at random from this district. The organished sectors employment like bank, schools, insurance company ect.Method of Data Collection on the basis of The method used by this researcher for data collection is sample survey. In fact, this researcher is interested in knowing something about the population. Researcher did not study the whole population but only studied the samples drawn from the population. Based on the result, the study is generalised to conclude about the entire population. Technique of Data Collection is on the basis of A structured interview schedule was used as a technique for collecting the data for the study.

**Keywords:** - online shopping, buying behaviour, internet, demographic factors, consumer ect.

## 1. INTRODUCTION:-

Nowadays, the Internet is being widely used in daily life. The existence of the Internet brought many advantages to individuals' daily lives. With the help of the medium, people could communicate, learn, entertain, buy products and get services. Of course the disadvantages of it had long been discussed; as the virus threat, the risk of personal information theft, spamming etc. However since the advantages outweigh the drawbacks, most of the people could not resist bringing it to the centre of their lives. Since the beginning of the Internet, individuals had shown interest in Internet. This article studies that how the demographic factors influence the change in the buying behaviour of online shoppers.

## 2. OBJECTIVES OF THE STUDY:-

- To study on recent trends in online shopping
- How the demographic factors affect buying behavior of online shopper.

## 3. SCOPE OF THE STUDY:-

The study was to assess the impact and role played by online purchase in present scenario. Nowadays everyone wants to save their time. Instead of going to shop or malls for purchasing, customers prefer online shopping. In this the researcher had concentrated on evolution and development of E-commerce in Thiruvananthapuram, shopper's attitude and perception towards online purchase.

## 4. ONLINE SHOPPING:-

Online shopping is the process of researching and purchasing products or services over the [Internet](#). The earliest online stores went into business in 1992, and online [retailing](#) took over a significant segment of the retail market during the first decade of the twenty-first century, as ownership of personal computers increased and established retailers began to offer their products over the Internet.

Also known as e-tail from "electronic retail" or e-shopping is a form of electronic commerce which allows consumers to buy goods or services from a seller over the Internet directly using a web browser. Alternative names are: e-web-store, e-shop, e-store, Internet shop, web-shop, web-store, online store, online storefront and virtual store. Mobile commerce or m-commerce describes purchasing from an online retailer's mobile optimized online site or app. An online shop

evokes the physical analogy of buying products or services at a brick sand-mortar retailer or shopping center; the process is called business-to-consumer (B2C) online shopping. In the case where a business buys from another business, the process is called business-to-business (B2B) online shopping. The largest of these online retailing corporations are Alibaba, Amazon.com, and eBay.

## 5. BUYING BEHAVIOUR:-

### Consumer Buying Behaviour Process:-

In the field of Consumer behavior research the classical model of consumer buying behavior is of utmost importance. We as persons take actions in purchasing and using products and services and actions are derived by mental and social process. Behavioral science helps us better understand better why we go for a certain product and why not, why we set priorities while making decision.



Consumer decision process carries five stages, starting with Problem recognition and following Information search, Evaluation of alternatives Purchase decision and finally Post Purchase behavior. Problem recognition starts with the perception of need and moves towards information search where consumer uses internal and external sources to analyze given information and use that information in the next step of evaluation of alternatives. While evaluating alternatives one assesses values of the products by giving weights. Once they have successfully evaluated alternatives they will move towards purchase decision where they may encounter three possibilities, from whom to buy, when to buy and do not buy. Once they have actually made the purchase now it comes to Post purchase behavior, whether they are satisfied or dissatisfied with their purchase, Solomon, bamossy, askegaard and hogg (2006).

### Theories of Planned Behavior (TPB):-

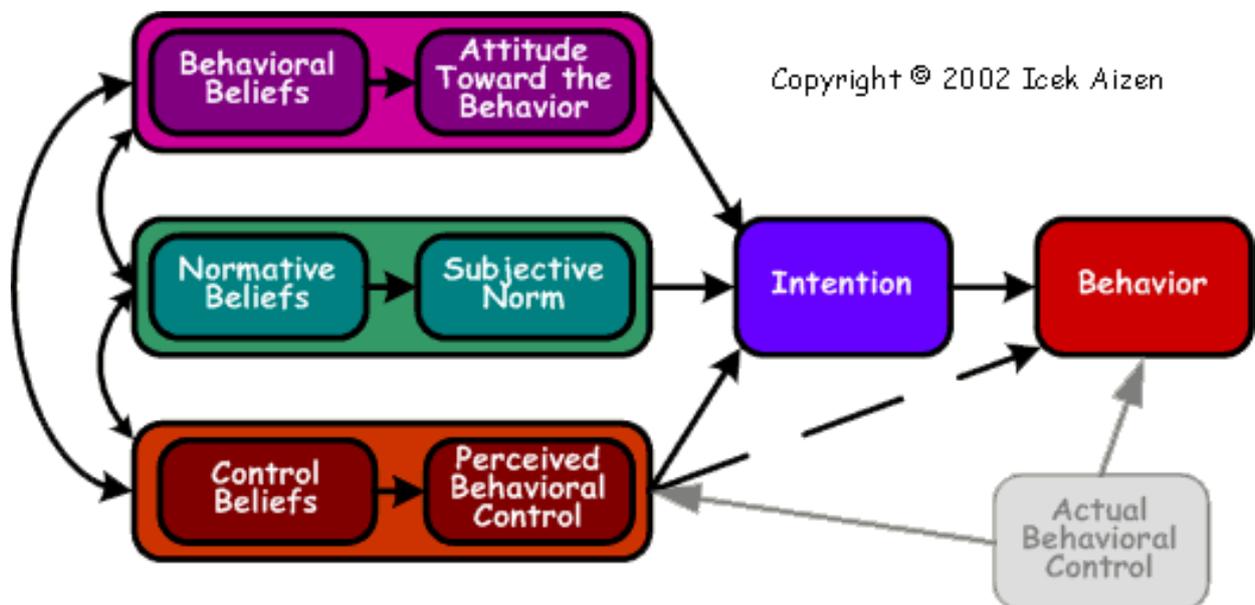
Theory of planned behavior proposed by Icek Ajzen (1988, 1991) actually provides a link between attitude and behavior. Consumer action is guided by three considerations.

Behavioral Beliefs

Normative Beliefs

Control Beliefs

TPB is basically an extension of theory of reason action (TRA) proposed by (Ajzen & Fishbein, 1980; Fishbein & Ajzen, 1975). Intention serves as a central role to perform a behavior. Icek Ajzen (1988, 1991) also proposed that a given behavior is influenced by the certain factors and these factors are assumed to be captured by the intention. In Icek Ajzen (1988, 1991) words these intentions indicate as how one is willing to put the effort in order to perform a given behavior. The attitude towards behavior and subjective norm are basically the factors that influence intention



and as discussed intention serve as a central role to perform behavior. On the other side perceived behavioral control actually moves towards the actual behavioral by influencing the intention.

Behavioral belief: It's about one's belief about the final outcome of particular behavior, Icek Ajzen (1988, 1991).

Attitude toward behavior: It is about personal performance of individual's positive or negative evaluation Icek Ajzen (1988, 1991). It is considered as personal or emotional factor that can affect in a positive or negative manner, Icek Ajzen (1988, 1991).

Normative belief: It is about individual's particular behavior that can be influenced by other important actors, Icek Ajzen (1988, 1991). These actors can be their friends, family members, co-workers etc.

Subjective norm: Its concerns with social normative pressures or other belief that can affect one's behavior whether a person should perform the behavior or not, Icek Ajzen (1988, 1991). Subjective influence is basically the social influence factor.

Perceived behavioral control: An individual's perceived ease or difficulty of performing the particular behavior, Ajzen, (1988). A person's way of performing a particular behavior with some difficulty or performing it easily, Ajzen, (1988).

Control beliefs: Person's beliefs about the presence of circumstances that may help or prevent performance of the behavior, Ajzen (2001).

## FIGURE 2

SCHEMATIC DIAGRAM OF THEORY OF PLANNED BEHAVIOR BY AJZEN, I. (1991)

Source: Ajzen, I. (1991). The theory of planned behavior. *Organizational Behavior and Human Decision Processes*, 50, p. 179-211

### **1. RELATIONSHIP BETWEEN DEMOGRAPHIC FACTORS AND USING NET BANKING FACILITIES(CHI -SQUARE TEST)**

An attempt has been made to study the relationship between demographic factors and using net banking. The chi-square test has been employed for this purpose. Relationship between demographic factors and using net banking In order to examine whether there is any significant relationship among the occupations, category of employee, age, gender etc.

- **Null hypothesis (h<sub>0</sub>): There is no significant relationship among the online shoppers based on their demographic factors and using net banking**
- **Alternative hypothesis (h<sub>1</sub>): There is a significant relationship among the online shoppers based on their demographic factors and using net banking**

**TABLE NO:1**

**RELATIONSHIP BETWEEN DEMOGRAPHIC FACTORS AND USING NET BANKING FACILITIES**

<b>Particulars</b>	<b>Value</b>	<b>Degree of freedom</b>	<b>Significance value</b>
There is no relationship between current occupation and using net banking facilities	2.131(b)	1	.144
There is no relationship between category of employment and using net banking facilities	1.575(a)	2	.455
There is no relationship between gender and using net banking facilities	2.674(b)	1	.102
There is no relationship between age and using net banking facilities	5.296(a)	4	.258
There is no relationship between education and using net banking facilities	3.048(a)	4	.550
There is no relationship between area of residence and using net banking facilities	1.956(a)	2	.376
There is no relationship between caste and using net banking facilities	2.358(a)	2	.308

It is observed that the significant value is more than 0.05 .Hence the null hypothesis is accepted

and it is concluded that

- **There is no significant relationship between using net banking facilities and occupation.**
- **There is no significant relationship between using net banking facilities and category of employment.**
- **There is no significant relationship between using net banking facilities and Gender.**
- **There is no significant relationship between using net banking facilities and Age**
- **There is no significant relationship between using net banking facilities and Education.**
- **There is no significant relationship between using net banking facilities and area of residence.**

## **2. RELATIONSHIP BETWEEN DEMOGRAPHIC FACTORS AND SATISFACTION WITH SHOPPING EXPERIENCE (CHI -SQUARE TEST)**

An attempt has been made to study the relationship between **demographic factors and satisfaction with shopping experience**. The chi-square test has been employed for this purpose. **Relationship between personal information and satisfaction with shopping experience** in order to examine whether there is any significant relationship among the occupations, age, gender etc.

- **Null hypothesis (ho): There is no significant relationship among the respondents based on their demographic factors and satisfaction with shopping experience**
- **Alternative hypothesis (h1): There is a significant relationship among the respondents based on their demographic factors and satisfaction with shopping experience.**

**TABLE NO:2**

**RELATIONSHIP BETWEEN DEMOGRAPHIC FACTORS AND SATISFACTION WITH**

**SHOPPING EXPERIENCE**

<b>Particulars</b>	<b>Value</b>	<b>Degree of freedom</b>	<b>Significance value</b>
There is no relationship between private employee and satisfaction with shopping experience	2.766(b)	1	.096
There is no relationship between public employee and satisfaction with shopping experience	3.277(a)	2	.194
There is no relationship between gender and satisfaction with shopping experience	.016(b)	1	.901
There is no relationship between age and satisfaction with shopping experience	4.212(a)	4	.378
There is no relationship between education and satisfaction with shopping experience	9.907(a)	4	.042
There is no relationship between area of residence and satisfaction with shopping experience	2.475(a)	2	.290
There is no relationship between caste and satisfaction with shopping experience	1.282(a)	2	.527

It is found that the significant values are less than 0.05. Hence the null hypothesis is rejected, and it is concluded that

- **There is a significant relationship between satisfaction with shopping experience and education.**

It is observed that the significant value is more 0.05. Hence the null hypothesis is accepted and it is concluded that

- **There is no significant relationship between satisfaction with shopping experience and category of employment.**
- **There is no significant relationship between satisfaction with shopping experience and Gender.**
- **There is no significant relationship between satisfaction with shopping experience and age .**
- **There is no significant relationship between satisfaction with shopping experience and area of residence.**

### **3. RELATIONSHIP BETWEEN DEMOGRAPHIC FACTORS AND CONTINUE SHOPPING IN FUTURE(CHI -SQUARE TEST)**

An attempt has been made to study the relationship between **demographic factors and continue shopping in future**. The chi-square test has been employed for this purpose. **Relationship between significant relationship among the occupations, age, gender etc.**

- **Null hypothesis (ho): There is no significant relationship among the respondents based on their demographic factors and continue shopping in future**
- **Alternative hypothesis (h1): There is a significant relationship among the respondents based on their demographic factors and continue shopping in future.**

**TABLE NO:3**

**RELATIONSHIP BETWEEN DEMOGRAPHIC FACTORS AND CONTINUE SHOPPING IN FUTURE**demographic factors and continue shopping in future in order to

examine whether there

Particulars	Value	Degree of freedom	Significance value
There is no relationship between current occupation and continue shopping in future	14.813(a)	2	.001
There is no relationship between category of employment and continue shopping in future	8.551(a)	4	.073
There is no relationship between gender and continue shopping in future	.653(a)	2	.721
There is no relationship between age and continue shopping in future	26.418(a)	8	.001
There is no relationship between education and continue shopping in future	13.543(a)	8	.094
There is no relationship between area of residence and continue shopping in future	9.433(a)	4	.051
There is no relationship between caste and continue shopping in future	29.044(a)	4	.000

It is found that the significant values are less than 0.05. Hence the null hypothesis is rejected, and it is concluded that

- **There is a significant relationship between continue shopping in future and**

**current occupation,**

- **There is a significant relationship between continue shopping in future and age,**
- **There is a significant relationship between continue shopping in future and caste.**

It is observed that the significant value is more than 0.05. Hence the null hypothesis is accepted and it is concluded that

- **There is no significant relationship between continue shopping in future and category of employment ,**
- **There is no significant relationship between continue shopping in future and gender.**
- **There is no significant relationship between continue shopping in future and education.**
- **There is no significant relationship between continue shopping in future and area of residence.**

#### **4. THE RELATION BETWEEN DEMOGRAPHIC FACTORS AND HOW OFTEN DO ONLINE SHOPPING. (CHI -SQUARE TEST)**

An attempt has been made to study the relationship between demographic factors and How often do online shopping. The chi-square test has been employed for this purpose. Relationship between demographic factors and How often do online shopping in order to

examine whether there is any significant relationship among the occupations, age, gender etc.

- Null hypothesis (ho): There is no significant relationship among the respondents based on their demographic factors and How often do online shopping
- Alternative hypothesis (h1): There is a significant relationship among the respondents based on their demographic factors and How often do online shopping

TABLE NO:4.

THE RELATION BETWEEN DEMOGRAPHIC FACTORS AND HOW OFTEN DO ONLINE SHOPPING.

Particulars	Value	Degree of freedom	Significance value
There is no relationship between current occupation and how often do online shopping	45.659(a)	8	.000
There is no relationship between category of employment and how often do online shopping	67.747(a)	16	.000
There is no relationship between gender and how often do online shopping	32.907(a)	8	.000
There is no relationship between current age and how often do online shopping	287.585(a)	32	.000
There is no relationship between education and how often do online shopping	166.317(a)	32	.000
There is no relationship between area of residence and how often do online shopping	75.876(a)	16	.000
There is no relationship between caste and how often do online shopping	58.400(a)	16	.000

It is found that the significant values are less than 0.05.Hence the null hypothesis is rejected, and

it is concluded that

- **There is a significant relationship between how often online shopping do and current occupation,**
- **There is a significant relationship between how often online shopping do and category of employment,**
- **There is a significant relationship between how often online shopping do and gender,**
- **There is a significant relationship between how often online shopping do and age,**
- **There is a significant relationship between how often online shopping do and area of residence,**
- **There is a significant relationship between how often online shopping do and caste.**

## **6. CONCLUSION :-**

The overall results prove that the respondents have perceived online shopping in a positive manner.. Maximum numbers of respondents feel that online purchase is having easy buying procedures; others think that they can have wide variety of products; lower price of the products, various modes of payments etc. **This study reveals that demographic factors are positively influence the change the buying behavior of the online shoppers.**

## A STUDY ON THE IMPLEMENTATION OF ARTIFICIAL INTELLIGENCE FOR CUSTOMER RELATIONSHIP MANAGEMENT

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### **ABSTRACT**

Customer relationship management (CRM) is a strategic approach for controlling an organization's connections with its current and potential customers (CRM). Artificial intelligence (AI) is capable of analysing vast volumes of data on its own. The integration of AI with just an existing legacy CRM system in a business-to-customer (B2C) relationships makes sense given the immense growth potential of an AI-integrated CRM system. The purpose of this study is to comprehend how AI will affect customer relationship management. The challenges that firms face while using AI, as well as how it is done.

Keywords: Artificial intelligence, customer relationship management, business to consumer relationship, tools of AI, challenges.

### **INTRODUCTION**

Artificial intelligence is one branch of computer science which aims to build intelligent machines. In recent years, the use of artificial intelligence technologies has become increasingly important across numerous industries. To look at it another way, artificially intelligence is the ability for computer programmes to reason and learn.

Customer perception is just a person's assessment of the products or services that are being provided to or advertised for him. The customer perception cycle or process is the sequence of events that begins when a consumer receives product information & ends when they form an opinion about it.

Although recent positive learning experiences using AI have divided customers' perspectives, The majority of clients think that the Artificial intelligence system may advance society. According to a survey of Global Independent, 61% percent respondents believe that the development of artificial intelligence will result in a better society, whereas 22% believe the opposite, indicating that people believe AI will improve society.

Both the risk of failure and growth depend heavily on the customer experience. Data insight is the fundamental tool for enhancing the consumer experience. But customer behaviour is disorganised, and customer experience databases are a little dirty. The guidelines are hazy, and there are no clear criteria for success. Customer experience datasets were typically a challenge for developers of AI systems. However, this problem is precisely the reason why AI forgot how important the user experience is. Call centre representatives, salespeople, and those in other customer-facing roles are unable to fully understand a customer's background and their own perceptions.

#### **REVIEW OF LITERATURE:**

**Gutha Jaya Krishna and Vadlamani Ravi (2016)**, studied about the evolutionary computing applied to customer relationship management through a survey. Articles published over the years from 1998 to 2015 was studied which had relationship with applying EC techniques to CRM. The main areas that were considered for the study was fraud detection, sentiment analysis, direct marketing, customer segmentation and so on. They concluded that solving CRM tasks was possible mainly due to EC.

**Bin Nashwan, Haslinda Hassan (2017)**, conducted a systematic review through papers published in various conferences over the period of 2005 till 2015 on the topic impact of customer relationship management on customer satisfaction and loyalty. A total of 35 papers was considered for this. The main reasons that affect the relationship between CRM and customer satisfaction and loyalty was identified by them.

**Suman Kumar, Varsha Deb, Ruchi Jain (2018)**, did empirical research on the topic artificial intelligence- creating automated insights for customer relationship management. To evaluate consumer awareness, effectiveness, and loyalty regarding AI-enabled tools, researchers have settled on five tools. Researchers used a survey-based study methodology and gathered primary data using a Google form. Following data analysis, researchers discovered that consumers are aware of the AI-enabled tools, that all of the products under consideration are efficient, and that consumers are also devoted to the tools.

**Sanjay Mohapatra, Ajit Kumar (April 2019)**, has worked on various literatures available on artificial intelligence and has tried to develop a framework for adopting artificial intelligence. Their main focus was on banking sector after studying literatures and found there were no much case studies on the same. They developed a framework to understand where AI can be implemented and where it cannot.

**Niharika Mishra, Sushanta Mukherjee (August 2019)**, together has studied the impact of artificial intelligence on customer relationship management of amazon in particular to Bangalore. In conclusion, Amazon's artificial intelligence does play a significant role in maintaining relationships with its customers by offering dependable services that keep them as clients for a longer period of time. The artificial intelligence-based user interface was deemed to be user-friendly, organized, effective, appealing, and educational to the clients, and the online payments performed online are also thought to be reliable.

**J. Sasiganth, S. Raeshma (December 2019)**, has conducted a study based on madras city region about customer perception to artificial intelligence. They have focused to understand the perception, attitudes and satisfaction of customer towards artificial intelligence. It is more of descriptive in nature. As per the study there is a positive relationship between the three aspects that they have focused upon and artificial intelligence.

**Yahia Baashar, Hitham Alhussian, Ahmed Patel (April 2020)**, has again done a literature review on customer relationship management system in the area of healthcare. In this work, they sought to review, classify, summarise, synthesise, and evaluate CRM studies in the healthcare sector. Their findings also showed that no robust theoretical framework was applied, and that only organisational and technological elements were studied using a quantitative method (such as a survey).

**Sheshadri Chatterjee, Bang Nguyen, Suman Chaudhri (September 2020)**, conducted an empirical study of Indian organizations about adoption of artificial intelligence integrated CRM system. The study was able to pinpoint various exogenous and endogenous factors to forecast the adoption of an AI-integrated CRM system in Indian enterprises. This study has been able to theorise how the two attitudinal belief structures, such as UTA and HEA, acting as two mediating factors, may increase the applicability and viability of the model.

**Priyanka Meena, Praveen Sahu (2021)**, has done a detailed academic literature review on customer relationship management. They in detail studied about all the possible research papers published over the last 21 years. This literature review article's goal is to consolidate and categorize previous CRM research so that academics and practitioners can access it in a structured and concise manner.

**Sheshadri Chatterjee, Ranjan Chaudhuri, Demetris Vrontis (April 2021)**, has researched on the topic of adoption of artificial intelligence integrated CRM systems in agile organizations in

India. The study emphasizes how organizational agility supports the growth of exploitative and explorative competencies and boosts current capacities for the rise and successful implementation of AICS in firms for competitiveness. The model seems to have fared better than the competing allied models in explaining the variation in organizations' adoption of AICS.

**Vinoth S, Preetha Chandran (January 2022)**, has come out with a case study on Artificial intelligence and transformation to the digital age in Indian banking sector. Their study showed that AI has been applied in the banking sector in areas like core banking, operational effectiveness, customer support, and analytics. In the Indian banking sector, chatbots and robotics are frequently utilized applications, while machine learning algorithms are also used in domains like KYC, financial transfers, fraud detection, etc.

**Christina Ledro, Anna Nosella, Andrea Vinelli (February 2022)**, conducted a detail literature review based on various articles published in the Scopus database. They have identified CRM as a strategy, process or information system. This study defines and describes three subfields that influence and define this literature in the CRM domain: Big Data and CRM as a database, AI and ML approaches applied to CRM operations, and strategic management of AI-CRM integrations.

## RESEARCH METHODOLOGY

Statement of the problem:

The age of artificial intelligence is the one we are currently in. How well has AI been integrated into customer relationship management across diverse industries? We'll also concentrate on the primary AI technologies and the difficulties that organisations confront in the process.

Scope of the study:

This research paper focuses on analysing previous studies from the last seven years to determine how artificial intelligence research has advanced for efficient customer management.

Methods of data collection:

The data used in this research study is entirely based on secondary data. Various research papers were downloaded from research gate and google scholar.

Objective of the study:

1. To identify the progress of research in the field of AI for CRM.
2. To identify the prominent tools of artificial intelligence used by businesses.

3. To understand the implementation of AI across various sectors
4. To bring out the challenges faced by organisations in the process of implementing AI.

Limitations of the study:

1. This study is only based on the secondary data.
2. Only 12 research articles are considered.
3. This paper was written within a time span of 25 days.
4. There was no much information received about AI for CRM for education and other sectors.

Findings and interpretation

### **IMPLEMENTATION OF AI:**

The researcher has discovered from the literature review that corporate organisations and AI developers fully believe that AI would enhance the CRM. As everyone is aware, several companies are already using AI to provide better services to their customers. Millions of dollars are being invested in the study and development of AI tools by both industry and academic institutions. Whether they are informed of it or not, customers are using AI-enabled solutions, and they are starting to notice the effects of AI on their surroundings.

This is being used by not only our business world but also the healthcare industry and online retailers like Amazon to improve their consumer relationships. Customers are growing more familiar with Amazon due to a variety of factors, such as its user-friendly design, ease of payment, one-click shopping, vast selection of goods supplied, and automated suggestions based on customer searches on their website. By offering dependable services to its clients and retaining them as clients for an extended period of time, Amazon's artificial intelligence would play a significant role in preserving relationships with the clients. Numerous case studies have been investigated, and frameworks have been established to aid enterprises in implementing AI effectively. To cut costs, boost productivity, boost security, and improve customer experience, banks and financial institutions are implementing AI technologies such cloud computing, blockchain, machine learning, APIS, and robotics. The majority of the big, international banks are using AI in their back offices and front-facing interactions with customers.

#### Major tools of AI:

1. Tools for recommending products: It is a prediction software. This software anticipates consumer shopping behaviour, enabling businesses to suggest goods that will appeal to their target market. This application is widely used by Amazon, Netflix, and Uber.
2. Bots - Also known as web robots, interactive agents, etc. It is a real-time, intelligent interaction tool that businesses use to offer better customer service. It employs a powerful Natural Language Processing (NLP) system and self-learns. It generates recommendations while processing trillions of bytes of data in milliseconds. Among the few instances of bots are Google Assistant, Alexa from Amazon, Siri from Apple, etc. The most popular bots that are used by or being implemented by numerous businesses are chatbots.
3. Speech Recognition Tool: Using AI technologies, this programme turns spoken words into text. The newest applications use IBM Watson's Input technology, which accepts client speech and produces results in text or graphic format. This application is now heavily utilized by chatbots. Bots are growing more intelligent and intelligent. Francesco Corea said that business models based on bot-to-bot communication will soon be available. This indicates that bots will communicate with one another to answer and filter the customer's questions and deliver the necessary solution.
4. Visual perception: The newest technology offered by AI is for visual perception. Now, photos and films may be recognised and identified by computers. These tools are made available to customers by businesses like Clarifai.com, Thehive.ai, Google, Facebook, etc. for picture search.
5. Text analysis and Email: One of the most recent and crucial ideas after big data is text analysis and email, often known as text mining. It falls under the umbrella of an AI subfield called Natural Language Processing (NLP).

#### Challenges in implementing AI:

1. Lack of qualified human resource: The biggest challenge is a shortage of qualified human resources; the current workforce is uninformed about the newest technology and applications.

2. High costs: The development and maintenance costs of AI were quite high and intricate. To keep up with the needs of a changing environment, AI is composed of sophisticated software and programmes that must be updated frequently.
3. Quality of data set: Businesses are very concerned about any risk brought on by unverified data. Examples include the risks of deploying an AI system for KYC compliance if the data source is unreliable.
4. Security and storage: Applications of AI use a large amount of data to make wise conclusions. Utilizing enormous volumes of data might provide storage constraints and datadriven automation can raise data security issues.
5. Trust on AI: Adoption of any new idea necessitates a high level of confidence in it. Many banks, companies, clients, and customers still hold fears about AI. AI is unreliable, especially in the banking and fintech sectors where there is money involved.

## CONCLUSION

Because of growing artificial intelligence research, forecast accuracy will increase. As AI technology develops, AIs will eventually replace humans in predictive roles. Humans will then be responsible for making decisions which AIs won't be capable of foreseeing. These choices typically involve unusual use cases for which algorithms were inappropriate. These evaluations can be based on morality, artistic originality and aesthetic sensibility, spiritual and emotional intellect, or the capacity to clarify difficult tasks and procedures. Finding people who can make fresh, responsible judgements will be important in order to develop consumer touch points and involve staff in various decision-making activities (requiring ethical judgement).

AI technology may be trained using a vast amount of existing data. Corporate must adopt a better data eco-system with data governance, uses cases that reflect business values, analytic technology and tools workflow integration, and a culture that is ambidextrous in the workplace. It has been observed that even when the organisation implements technology, the management of an

organization still feels uncertain about whether the expected results will be realised. A poor design process and a deficient information processing system are typically to blame for this. In order to overcome this constraint and avoid any unexpected and undesirable complications when utilising the latest tech, the staff must obtain enough training. This point of view holds that a technology revolution can either help or hinder an organization's ability to implement a new system.

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## **GREEN ACCOUNTING PRACTICES IN THE MANUFACTURING ORGANIZATION: A CASE STUDY OF HINDUSTAN UNILEVER LTD., MYSORE**

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### **ABSTRACT**

Green accounting is a popular term for environmental and natural resource accounting. It is an expanding field focused on factors such as, resource management and environmental impact, in addition to company's revenue and expenses. Companies are incorporating the concept of environmental element in their business operation. The operation of the green accounting varies from one country to other as there is no globally accepted standard format to measure. In Indian context environmental accounting mainly stresses on environmental losses, gains incurred in the organization level and a country as a whole. The article tries to explore the concepts, importance and overviews of green accounting by the organizations pertaining to Mysore district. The objective of this study is to examine demographic profile of the employees of HUL and assess the environmental accounting and expenses for measuring green accounting in the organization. Finally these studies mainly concentrate status of ISO 14000 and to avoid environment disaster what are the compliant has been introduced in the organization and majority of the respondents have agreed upon minimizing the damage (pollution) and stated that waste management cost and pollution abatement cost are more incurred more in the HUL.

**KEY WORDS:** Green Accounting, Environmental Cost, Environment Expenses etc.

### **INTRODUCTION:**

The term "Green Accounting" was first brought into common usage by economist and Professor Peter Wood in the 1980's. Green accounting is a type of accounting that attempts to factor environmental costs into the financial results of operations. It has been argued that gross domestic product ignores the environment and therefore policymakers need a revised model that

incorporates green accounting. Better macroeconomic and societal indicators are needed to reflect the contribution of biodiversity and ecosystem services to human beings. Green accounting which is also called as environmental environment was introduced by an economist and Professor **Peter Wood** in the year 1980. It plays a vital role in today's Corporate Social Responsibility. It incorporates environmental sources and assets into company's accounts. It measures social, economic and environmental impact of business. It is one the system emerged for sustainable development. It is a kind of accounting which takes into consideration environmental cost for calculation of income of an enterprise and there is a need for calculating revised method of accounting which includes environmental cost etc.

The current study focused on green accounting practices in the organization a case study of Hindustan Unilever Ltd. HUL is situated in Hebbel Industrial Mysore and it is basically Indian consumer goods Company based in Mumbai, Maharashtra. It is a subsidiary of Unilever, British-Dutch company HUL's products include foods, beverages, cleaning agents, personal care products and water purifiers. HUL was established in 1933 as Lever Brothers in 1956, became known as Hindustan Lever Limited, as a result of a merger among Lever Brothers, Hindustan Vanaspati Manufacture company Ltd and United Traders Ltd. It employs over 16,000 workers, while it also indirectly helping to facilitate the employment of over 65,000 people. The companies were renamed in June 2007 as "Hindustan Unilever Limited". Currently in January 2019, HUL said that it expects to complete the merger with Glaxo Smith Kline Consumer Healthcare (GSKCH India) in this year. This company will successfully practice or adopted green accounting in developing stage and also stated that best methods to be followed for sustainable development in organizations.

#### **GREEN ACCOUNTING MEASURES:**

In the context of green accounting measures to estimate the losses in terms of accounting and practices many organization are following certain tools and techniques to measure, they are as follow cost analysis, investment analysis and appraisal and performance evaluation. The most commonly used natural resource to maximum extent in organization is air, water, land, oceans and atmosphere. ISO 14000 compliant is playing a vital role in environment management.

**The following table shows the major green accounting measures as follows:**

**Table No.1**

#### **Green Accounting Measures**

Description	Green Accounting Issues and Scope
Pollution Prevention Costs	Costs incurred to prevent air and water pollution along with water treatment facilities and other activities.
Environmental Protection Costs	Costs of energy saving measures as well as costs of global warming reduction measures.
Costs of Resource Recycling	Costs incurred for waste reduction and disposal as well as for water conservation, rainwater usage and other measures aimed at efficient resources usage.
Environmental Restoration Costs	Cost of environmental restoration operations (eliminating soil and ground water contamination, environmental compensation, etc.)
Management Costs	Management-related environmental protection costs including environmental promotion activities and costs associated with acquiring and maintaining ISO 14001 certification, water contamination, environmental compensation, etc)
Social Promotion Activities Costs	Environmental protection costs stemming from participation in social activities such as participation in organizations concerning with environmental preservation etc.
Research and Development Costs	Environmental protection costs for research and Development activities and costs of environmental solutions business activities (Green product/environmental technology design and development costs, environmental solutions business costs, others) etc.

Source: Krishna Moorthy, Open Journal of Accounting (2013).

With keeping above all views, this empirical study is mainly focused on green accounting concepts such as, environmental disasters, cost, expenses, tools and teachings used to sustainable development in HUL organization.

### **Review of Literature:**

Camellia (2014), he undertaken study on advantages of implementing environmental accounting within an economic entity. The purpose of this paper is to highlight the function of environmental accounting within an economic entity and also emphasizes on identifying advantages rendered after implementation of environment accounting in the organization. It provides the overview of environment expenses incurred directly and indirectly by the organization and draft the step to be taken to overcome the losses.

Peter Yacob (2016), he highlighted a study on green accounting and its measurements. He mainly focused on that SME's are also interested in implementing green accounting concept and enjoy the benefits out of it. Environment accounting helps in identifying, tracking, analyzing and reporting of the materials and cost information associated with eco auditing in the SME. Green accounting actively taking part in decision making through redesigning the production process, identifying the environment expenses and cost incurred to implement and maintenance.

Shan Huang (2017), conducted a study on integrated model to explain how corporate social responsibility affects corporate financial performance and sustainability. It helps in designing the production process because during the process biochemical gases will be released due to which causes damage to the environment as well as human beings. Finally this empirical results indicate that intellectual capital mediates the relationship between CSR and financial performance, and industry type moderates the direct influence of CSR on financial performance. Such results have critical implications for both academia and practice.

Joseph Chukwudi (2018), undertaken a study on the effects of environmental accounting on developing nation: Nigerian experiences. He identifies in this study environmental accounting issues and the effects of these environmental factors on the life of Nigerians. It was discovered that environmentally friendly organizations who voluntary disclose their environmental activities. Finally he suggests that companies should adopt acceptable and uniform standards for the purpose of control and measurement of performance, and should design products which generate less waste or emission during their life cycle.

Sandra Janković (2021), he focused a study on managerial attitudes on environmental reporting: evidence from Croatia. He investigates managerial attitudes regarding the importance of environmental information for company's stakeholders. The factor analysis of managerial attitudes, research indicates variables of the highest importance in the extracted factor: the usefulness of environmental information for different stakeholders, Finally the research identifies only the industry of the company as positively and significantly related to dependent variables.

Syam Roy(2022), he undertaken study on green accounting for sustainable development: case study of industry sector in West Bengal. The paper shows the data gaps. Finally the continuous effort to find the right indicator as appropriate signaling mechanism of sustainable development, green accounting emerged as one of the possible indicators of sustainability.

**OBJECTIVES OF THE STUDY:**

1. To examine demographic profile of the employees of HUL;
2. To highlight the status of ISO 14000 compliant in the organizations;
3. To analyses the expenses towards green accounting in the organization;

**RESEARCH METHODOLOGY:**

The research design applied for the study is exploratory research. The source of data is collected from both primary and secondary data sources. For collection of primary data survey was conducted through questionnaires. The constructed questioner has been issued to 50 employees of Hindustan Unilever Ltd, situated in Hebbal industrial area Mysore and secondary data is collected through books, websites, various research publications, journals and periodicals on the selected topic. For the purpose data analyze applied test of normality of data.. In the study applied non-parametric test mentioned, mean, standard deviation, Mann-Whitney U-Test and Kruskal Wallies Z-Test to prove the hypotheses of the study.

**RESEARCH HYPOTHESES FOR THE STUDY:**

H1: There is a significant difference between demographic profiles of employees

H2: There is a significant difference between status of ISO 14000 compliant in the organizations.

H3There is a significant difference between environmental accounting and expenses for measuring green accounting.

**RESULTS AND DISCUSSION****1. Demographic Profile of the Employees:**

Table No.1 visualizes the demographic profile of employees in Hindustan Unilever Ltd. The overall respondents were numbering, 50 employees out of that 40 respondents are belongs to male category and 10 respondents are belongs female category. In the context of age pattern, majority of the respondents numbering, 22 employees belongs to age group of between 25-35 years. Further the educational background of the respondents majority numbering,18 and 17 employees were post graduates and professional qualified respectively. In the context of designation of employees, majority numbering, 25 and 11 respondents were belongs to department heads and senior manger respectively. The working experience of the employees, majority 28 and 12 respondents were belongs to less than 10 years and between 10-20 years respectively.

**Table No.1**

**Demographic Profile of the Employees**

<b>Personal Factors</b>	<b>Classification</b>	<b>Frequenc y</b>	<b>X<sup>2</sup></b>	<b>(Sig 2- tailed) P-value</b>
Gender	Male	40	<b>2.110</b>	<b>P=0.00 0 (H0 Signific ant)</b>
	Female	10		
Age Pattern	Up to 25 years	17	<b>2.632</b>	<b>P=0.57 7 (H0 In Signific ant)</b>
	Between 25-35Years	22		
	Above 35Years	11		
Educational Background	Graduation	15	<b>3.241</b>	<b>P=0.00 0 (H0 Signific ant)</b>
	Post Graduation	18		
	Professional Qualified	17		
Designation	Senior managers	14	<b>3.543</b>	<b>P=0.06 1 (H0 Insignif icant)</b>
	Department heads	25		
	Environmental Engineering	11		
Work Experience	Less than 10 years	12	<b>2.243</b>	<b>P=0.08 3 (H0 Insignif icant)</b>
	Between 10-20 years	28		
	Above 20 years	10		

Source: Field Survey, (Significant level 0.05).

To calculate, chi-square test for data of gender profile and educational background, the P value (Sig 2-tailed) is 0.000 and 0.000 which is less than the Alpha value of 0.05, it was found to be significant. Therefore the results indicate that the stated null hypothesis to be rejected and alternative hypothesis is accepted. Further the data of age pattern, designation and work experience of the respondents the P value (Sig 2-tailed) is 0.577, 0.073 and 0.083, which is more than the Alpha value of 0.05, it was found to be insignificant. Therefore the results indicate that the stated null hypothesis to be accepted and alternative hypothesis is rejected.

## 2. STATUS OF ISO 14000 COMPLIANT IN THE ORGANIZATION:

Table No.2 represents the status of ISO 14000 complaints in the organization. Majority of the respondents the highest mean and S.D value was recorded 4.22 and 2.878 have strongly agreed that status of ISO14000 international Standards are currently implemented stages in organizations. In the viewpoint of environmental disasters, majority of the respondents are categorically stated that organizations are focusing on improving cost control measures to avoid Environmental disasters with assigning the highest mean and S.D value was recorded 4.80 and 2.548 respectively.

**Table No.2**

### Status of ISO 14000 compliant in the organization

<b>Status of ISO 14000 Complaints</b>		
<b>Variables</b>	<b>Average Mean</b>	<b>Standard deviation</b>
Not being communicated	3.01	1.278
Planning to implement	3.00	2.451
Currently implementing	4.22	2.878
Successfully implemented	2.81	2.563
<b>Kruskal –Wallies Z-Test</b>	<b>Kruskal –Wallies Z-Test=4.081</b> <b>Asymp. Sig.(2-tailed)=0.001</b> <b>Mean Rank=20.78</b> <b>Degree of Freedom=03</b>	
<b>Environment disasters</b>		
<b>Variables</b>	<b>Average Mean</b>	<b>Standard deviation</b>

Assures customers commitment	2.08	1.734
Improving cost control	4.80	2.548
Reduce in material consumption	3.28	1.632
Improves industry- government relations	4.01	1.426
<b>Kruskal –Wallies Z-Test</b>	<b>Kruskal –Wallies Z-Test=3.218</b> <b>Asymp. Sig.(2-tailed)=0.000</b> <b>Mean Rank=18.78</b> <b>Degree of Freedom=03</b>	

**Source: Primary Data.**

Table No. 2, The Kruskal –Wallies Z-Test, it's a category of nonparametric test. Describe to test the significant difference between status of ISO 14000 compliant in the organization, the P value (Sig 2-tailed) is 0.001, **which is less than the Alpha value of 0.05, which states that the null hypothesis to be rejected and alternative hypothesis is accepted.** To test the significant difference between environmental disasters of the organization, the P value (Sig 2-tailed) is 0.000, **which is less than the Alpha value of 0.05, which states that the null hypothesis to be rejected and alternative hypothesis is accepted.**

### **3. ENVIRONMENTAL ACCOUNTING AND EXPENSES:**

Table No.3 indicates the environmental accounting and expenses measured in the organization. Majority of respondents have suggested that increase in resource consumption and reduce in waste are the criteria for environment audit with assigning the highest mean and S.D value was recorded 4.72 and 2.743 respectively. In the context of environmental expenses, majority of the respondents have stated that operating cost constitutes major chance of environmental expenses with assigning the highest mean and S.D value was recorded 4.88 and 2.111 respectively. Whereas good number of respondents has expressed research and development cost constitutes considerable amount of environmental expenses.

#### **Table No.3**

#### **Environmental accounting and expenses**

<b>Environmental accounting</b>		
<b>Variables</b>	<b>Average Mean</b>	<b>Standard deviation</b>
To assure compliance with regulations	3.23	1.824
Raise in resource and reduce in waste	4.70	2.325
Minimize damage	4.72	2.743
Improve environmental performance	2.01	1.881
<b>Mann – Whitney U test</b>	<b>Mann – Whitney U test =3.724</b> <b>Asymp. Sig.(2-tailed)=0.004</b> <b>Mean Rank=23.33</b> <b>Degree of Freedom=03</b>	
<b>Environmental Expenses</b>		
<b>Variables</b>	<b>Average Mean</b>	<b>Standard deviation</b>
Capital investment in EM	2.78	1.075
Operating cost	4.88	2.111
Research and development cost	3.21	1.616
Environment administration cost	2.11	1.236
<b>Mann – Whitney U test</b>	<b>Mann – Whitney U test =4.182</b> <b>Asymp. Sig.(2-tailed)=0.562</b> <b>Mean Rank=20.01</b> <b>Degree of Freedom=03</b>	

**Source: Primary Data.**

Table No. 3, The Mann – Whitney U test, it’s a category of nonparametric test. Describe to test the significant difference between the environmental accounting categories; the P value (Sig 2-tailed) is 0.004, which is less than the Alpha value of 0.05, which states that the null hypothesis to be rejected and alternative hypothesis is accepted. To test the significant difference between the categories of environmental expenses, the P value (Sig 2-tailed) is 0.562, which is more than the Alpha value of 0.05, which states that the null hypothesis to be accepted and alternative hypothesis is rejected.

## FINDINGS OF THE STUDY:

**The following are the major findings of the study:**

- The overall respondents were numbering, 50 employees out of that 40 respondents are belongs to male category and 10 respondents are belongs female category.
- In the context of age pattern, majority of the respondents numbering, 22 employees belongs to age group of between 25-35 years.
- Further the designation of employees, majority numbering, 25 and 11 respondents were belongs to department heads and senior manger respectively.
- Majority of the respondents the highest mean and S.D value was recorded 4.22 and 2.878 status of ISO14000 international Standards are currently implemntated stages in organizations.
- Majority of the respondents opined that operating cost incurred more environmental expenses with assigning the highest mean and S.D value was recorded 4.88 and 2.111 respectively.

## SUGGESTIONS FOR THE STUDY:

**The following are the suggestions for the study:**

- ❖ Government should take stringent measures to educate industries about significance of Green Accounting practices and their benefits. Government agencies like pollution control board must ensure that organization adhere to ISO 14000 IS.
- ❖ Organization should make use of alternate resources, hence promoting sustainable development and ecological balance.
- ❖ Government in association with CII and FCCI should draw guidelines and provide a standard format of tools and techniques for Green Accounting, hence bringing uniformity in practice.
- ❖ Government should come out with appropriate policy and procedure with regard to fixing the criteria for external audit, thereby providing clarity of the same.
- ❖ Government agencies like KIADB, PCB and other regulatory bodies must monitor organizations periodically and ensure they comply with regulations.
- ❖ A Robust Green Accounting Practice must be in place in all organizations, promoting effective environmental management for a better living in the society.

## CONCLUSION

The present research paper mainly describes the current status of green accounting practice in Hindustan Unilever Ltd, Mysore City. The key goal of this paper is to outline a set of green

accounting measures that are to be addressed in environmental management accounting system of HUL. Finally this study concludes majority of the respondents opinioned that status of ISO14000 international Standards are currently implemented stages in organizations and waste management cost and pollution abatement cost are more incurred more in the organization and they adopted investment and appraisal analysis and performances evaluations tools and techniques to used measured green accounting in HUL. Therefore give study suggest that government should take initiative and make compulsory environment audit, which are erratically consuming natural resources regulatory bodies should be stringent in monitoring organizations, provide appropriate guidelines and support to improve environment account in HUL

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# EMPIRICAL INVESTIGATION OF GUERRILLA MARKETING PRACTICES: A STUDY WITH SPECIAL REFERENCE TO CUSTOMERS OF MYSORE CITY

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## ABSTRACT

Guerrilla marketing is one of the dynamic growing marketing techniques which are used by advertising industry. The numerous forms of guerrilla marketing offer businesses various opportunities to boost sales figures through the use of unusual strategies to increasing the sales maximization therefore it includes various techniques of guerrilla marketing discusses in this paper. In this connection this study mainly aims to understand the demographic profile of the customers and to assess level of awareness among the customers and to analyses guerrilla marketing various tools & techniques attracts the customer and also evaluate the customers experience towards guerrilla marketing. This study surveyed 100 customers, it results that only the younger generation and high level of income group of customers attracts and partial aware about guerrilla marketing. The statistical inferred that there is no significant relationship between customer experiences between guerrilla marketing (Celebrity endorsement) has influence on consumer buying behavior in Mysore City.

**KEY WORDS:** Guerrilla Marketing, WOM communications, Customers, T-Test etc.

## INTRODUCTION

The word “guerrilla” originates from Spanish word for war – “guerra”. The guerrillatactic is very old, being employed throughout history often against stronger enemies. Guevara described the guerrilla tactic in his book “Guerrilla warfare”, as the one that builds on raids and ambush attacks. This word was first used in relation to marketing in a book “Marketing Warfare”, which viewed marketing activities as a battle to conquer the customer’s mind.<sup>40</sup> It was pioneered and

popularized in the 1980s by Jay Conrad Levinson, with his breakthrough book “Guerrilla marketing: easy and inexpensive strategies”, as the market was undergoing a crisis at that time and shifted from competitor to customer oriented, thus preparing the ground for guerrilla marketing. (Sources: Michael Chamráth 2016)

In the Indian context, marketing experts and researchers attempt to find the best description of Guerrilla marketing, but there is still no official definition of the concept. Various versions of explanations have consequently been created and almost all of them have the following characteristics of Guerrilla phenomenon in common: untraditional, creative, surprising and efficient marketing. Guerrilla marketing is a special type of marketing strategy which is nowadays designed for marketing mix model and mainly used in „P“ (promotion) element. **“A body of unconventional ways of pursuing conventional goals. It is a proven method of achieving profits with minimum money”**. Thus, newer techniques are being introduced day by day to attract new customers and retain existing customer. For Example: Viral or buzz marketing, Stealth, Ambient, Projection advertising, Grassroots and Wild posting etc. In keeping all this views this study focused on customer’s opinions and awareness level towards Guerilla marketing.

## LITERATURE SURVEY:

Many researchers have conducted a study on various dimensions of gorilla marketing very few studies has been discussed as follows, (Gerd Nufer ,2013) attempts a study on overall concepts of guerrilla marketing and explain his article scientifically substantiated knowledge on the subject matter of guerrilla marketing. (Shabista,2014), undertaken a study on guerrilla marketing and social cause. she make out in this study intensively used marketing strategy used to increasing the sales. (Kadambini2016),she find out majority of the purchasers search for items which fulfill a large portion of their necessities and they have faith in notices which coordinate their assumptions. (Hingley2017),concentrate in this study impact of guerrilla marketing behavior on customers. There should be an occurrence of the greater part of the clients publicizing goes about as a main consideration for attracting customers. (Liya Xavier, 2019), conducted a study on guerrilla marketing techniques. He wrote conceptual paper related to effectiveness of traditional marketing methods over modern strategies. (Viktoria 2021),he identified in this study the vast majority of the clients purchase item dependent on the incomplete information they accomplish with respect to the item of purchasing the products butgorilla marketing will help to solve this kind of problems.

## RESEARCH METHODOLOGY:

The primary data was collected to issuing of questionnaire to the customers. The total population size for study was only 100 customers selected on simple random sampling basis in Mysore City, which is considered optimum for the study. In the context of secondary data was gathered from different sources such as, Internet, refereed journals, dissertation work and peered journals related on guerrilla marketing. In the context of statistical tools used in this paper is descriptive statistics, mean, standard deviation, chi square test, one way ANOVA, One Sample T-Test etc.

## OBJECTIVES OF THE STUDY:

1. To understand the demographic variables of the customers.
2. To analyses guerrilla marketing various tools & techniques attracts the customer.
3. To evaluate the customers experience towards guerrilla marketing

## HYPOTHESES:

**The study is based on the following hypotheses:**

1. H1: There is a significant variation in demographic profile of the customers.
2. H2: There is no significant difference between guerrilla marketing various tools & techniques attract the customers.
3. H3: There is a significant difference between customers experience towards guerrilla marketing

## ANALYSIS AND INTERPRETATION:

### 1. Demographic variables of the Respondents:

Table No.1 signifies the demographic variables of the customers. The complete respondents were 100 respondents out of that 78 respondents were male and 22 respondents were female respectively. The age pattern, majority of the respondents 40 and 25 respondents are belongs to age group of less than 30 years and between 30 to 40 years, this shows younger age group of the customers are attract with the guerrilla marketing. Further the educational background, majority of the respondents numbering, 30 and 35 respondents their educational qualification is graduation and post graduation. The occupation pattern of the respondents majority 30 respondents are businessman and professional are more idea about guerrilla marketing. Lastly the annual income of

the respondents 40 and 35 respondents earning between 5 lakh to 7.5 lakh and 7.5 lakh, this income group of the customers more attract towards guerrilla marketing respectively.

**Table No.1**

**Demographic Profile of Respondents**

<b>Particulars</b>	<b>Frequency</b>
<b>1. Age Pattern:</b>	
a) Less than 25 years	40
b) Between 25-35 years	25
c) Between 35-45 years	20
d) Above 45 years	15
<b>2. Gender:</b>	
a) Male	78
b) Female	22
<b>3. Education Background:</b>	
a) SSLC	10
b) PUC	18
c) Graduation	35
d) Post graduation	30
e) If any other specify	07
<b>4. Occupation Pattern:</b>	
a) Employees	20
b) Business	30
c) Professionals	30
d) Students	10
e) Housewife	10
<b>5. Annual Income:</b>	
a) Less than 2.5 lakh	10
b) Between 2.5 to 5 lakh	15
c) Between 5 to 7.5 lakh	40
d) Above 7.5 lakh	35

**Source: Field Survey.**

To calculate, chi –square test for data of age pattern, gender, occupational pattern and annual income the P value is less than 0.05, therefore null hypothesis is rejected and alternative hypothesis is accepted. Further the data of educational background of the respondents the P value is more than 0.05, therefore null hypothesis is accepted and alternative hypothesis is rejected.

**Table No.1 (a)**

**Chi-Square Results**

Variables	Chi-square	P-value	Hypothesis
Age Profile	3.387	0.000	Ho=Rejected
Gender	3.111	0.000	Ho=Rejected
Educational Profile	2.134	0.077	Ho=Accepted
Occupation Pattern	2.122	0.000	Ho=Rejected
Annual Income	3.112	0.000	Ho=Rejected

**Significant level 0.05**

**2. Guerrilla marketing tools & techniques attracts the customer:**

Table No.2 represents guerrilla marketing tools & techniques attracts the customer. According to F-Test, the more mean was recorded 4.850 and 4.400, this assigned values indicates majority of the respondents they strongly agree wild posting ( unconditional outdoor advertisement) and ambush Marketing (counter of advertisement placed by a company by its competitors), these are very striking tools to use in Guerrilla marketing attracts the customers.

**Table No.2**

**Level of Awareness towards guerrilla marketing**

Variables	Mean	F-Test	P-Value	Hypotheses
Wild Posting	4.850	1.5620	0.001	Significant
Ambient Marketing	2.500	1.5038	0.077	Not-Significant
Ambush Marketing	4.400	1.5498	0.000	Significant
Viral Marketing	3.750	1.3773	0.065	Not-Significant
WOM Communication	3.325	1.4935	0.032	Not-Significant
Buzz Marketing	3.650	1.4793	0.000	Significant
Stealth Marketing	3.124	1.2231	0.000	Significant

Dealers Promotion	3.412	1.2234	0.000	Significant
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Source: Field Survey

From the view point of statistical inferences, there is no significant relationship between guerrilla marketing techniques of wild posting, ambush marketing, buzz marketing, stealth marketing and dealers promotion these variables are less than p value therefore null hypothesis is rejected. Further there is a significant association between ambient Marketing, viral marketing and WOM Communication, these variables are more than p value therefore null hypothesis is accepted.

### 3. Customers experiencing towards guerrilla marketing:

Table No.3 shows that customers experiencing towards guerrilla marketing. According to one sample T-test, the more mean was recorded 4.88 and 4.73, this assigned values indicates majority of the respondents they strongly agree that attractive sign boards, it helps to customer to take easy purchase decisions and guerrilla marketing (Celebrity endorsement) has influence on consumer buying behavior. Therefore guerrilla marketing campaigns is require to create more awareness and easy attract the customers lastly the customers are experiencing in good/ better for advertisement of products and services using various channels of guerrilla marketing.

**Table No.3**

#### Level of Awareness towards guerrilla marketing

Variables	Mean	SD	T-Test	Sig-H0
Innovative advertisement helps the customer for easy buying of products.	3.71	1.18	0.000	<b>Significant</b>
Guerrilla marketing (Celebrity endorsement) has influence on consumer buying behavior	4.73	2.41	0.071	<b>Not-Significant</b>
Guerrilla marketing strategy is more attractive to the customers	3.33	3.74	0.063	<b>Not-Significant</b>
Guerrilla marketing helps to increasing the sales volume	3.21	3.17	0.003	<b>Significant</b>
Innovative marketing gives more information about products and services to the customers	4.01	2.11	0.000	<b>Significant</b>
Attractive sign boards, it helps to customer to take easy purchase decisions.	4.88	2.44	0.004	<b>Significant</b>

Guerrilla marketing more attracts the younger generation customers.	3.98	1.88	0.091	<b>Not-Significant</b>
Guerrilla marketing is one of the most effective marketing strategies in present era.	3.01	1.05	0.000	<b>Significant</b>
Guerrilla marketing contains interesting messages compared to the traditional marketing techniques.	3.75	1.22	0.000	<b>Significant</b>
Guerrilla marketing changes customer conventional purchasing tendencies	3.55	1.33	0.000	<b>Significant</b>

Source: Field Survey.

From the view point of statistical inferences, there is no significant association between guerrilla marketing has influence on buying behavior, guerrilla marketing strategy is more attractive to the customers and guerrilla marketing more attracts the younger generation customers, these variables are more than p value therefore null hypothesis is accepted. Further there is a significant association between innovative advertisement helps the customer for easy buying of products, guerrilla marketing helps to increasing the sales volume, attractive sign boards, it helps to customer to take easy purchase decisions and guerrilla marketing contains interesting messages compared to the traditional marketing techniques etc, these variables are less than p value therefore null hypothesis is rejected.

**RECOMMENDATIONS FOR THE STUDY:.**

- ❖ Peoples were more educated today and hence marketers need to design the message in such a way that it will look more attractive, memorable and on the other hand provides more information related to phone attributes.
- ❖ More emphasis on credibility and improvement in perception of consumers need to be given while designing a guerrilla tool for cell phone marketing. It should be done by adding information related to price and services like warrant, exchange or re-sale value in their communications messages.
- ❖ The goal is to improve sales promotion, we need to focus is on innovative alternatives adopt in marketing the goods and services.
- ❖ To attract more customers marketers need to create more innovative and new tools which suits marketing of cell phones and on the other hand attracts more and more customers to their pool

- ❖ Guerrilla marketers should always make use methods for a campaign to easy promote of products and services.

## CONCLUSION

This current study reviewed the concepts of guerrilla marketing along with its various tools and tactics and customer experience with innovative techniques adoption in marketing. From the above analysis younger generation of the customers they are little familiar with guerrilla marketing and majority customers are opinioned that strongly agree that attractive sign boards, it helps to customer to take easy purchase decisions and guerrilla marketing has influence on consumer behavior. Therefore when compared to regular advertising guerilla marketing tend to create a deeper and effective influence in the minds of the people. The same way this guerilla marketing technique can be used to create sustainable development in new marketing field.

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## A STUDY ON CUSTOMER SATISFACTION AND PREFERENCE TOWARDS MAMAEARTH BRAND PRODUCTS

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### **ABSTRACT**

The purpose of this study is to determine consumer happiness and preference levels, as well as the issues that respondents confront when utilising Mamaearth brand products. A sample of 135 customers consuming Mamaearth products were selected for the study. Convenience sampling method was adopted to select the samples and selected samples were given questionnaire to participate in this study. The data was analysed using statistical procedures such as percentage analysis and weighted score analysis. The study tried to shed light on client preferences, and it was also necessary for the Mamaearth to raise awareness about its various products, all of which are of superior quality when compared to other companies. 35.6% of the respondents are choosing for the reason of quality and the respondents are more satisfied with the quality of Mamaearth products and their mean score depicts the same.

**KEY WORDS:** Mamaearth, Customer satisfaction, Awareness, Preference

### **INTRODUCTION**

Organizations and researchers have been particularly interested in customer satisfaction. Organizations' primary goal is to maximise earnings while lowering costs. Profit maximisation can be achieved by increasing sales while cutting costs. Profit maximisation can be achieved by increasing sales while cutting costs. Client satisfaction is one of the most essential variables in increasing sales since it leads to customer loyalty, recommendations, and repeat purchases. A client is an individual or a business that purchases a company's goods or services. The basic purpose of businesses is to attract customers, because it is the client who generates demand for goods and services. Mamaearth sells infant and personal care items. Since its inception in 2016, the brand has grown to over 1 million customers. Mamaearth is also one of the rare businesses to

reach the 100 crore mark in less than four years. This brand's rapid expansion in such a short time is impressive. Mamaearth was also named "one of the top brands" in India in the ET brand festival 2019, despite the fact that the company was just three years old at the time. Hats off to such a young company's enormous success.

There are numerous reasons to choose Mamaearth's goods. It is a blend of science and nature that delivers you the finest of nature, with goods tailored to your needs. Mamaearth offers cruelty-free products, and just as Mother Nature watches out for humans, Mamaearth allows us to watch out for the animals who suffer as a result of product testing. It offers Made Safe Certified infant items, indicating that they are created with safe components. The products have been dermatologically evaluated and approved by the FDA, making them completely safe for everyone.

### **MARKETING STRATEGY OF MAMAEARTH**

Mamaearth's marketing plan will be discussed further down. Increasing the number of customers is crucial to understand this by the time you need to expand your customer base. You have no boundaries; the world is your oyster. If we follow Apple's lead, we'll start with the CPU, then the personal computer, then iPhones, iPods, and so on. They tried to grow all the time. The same can be said for Mamaearth; it began as a firm for moms and babies, but as time went on, it began to expand its clientele. The business has now expanded into skincare. Bathing components, skincare serums and ointments, face wash, moisturisers, hair oils, and other products are available. The best part is that none of these products contain any harmful chemicals.

**FOCUS ON DIGITAL PLATFORMS** - Every brand and company understands the importance of digital platforms. We live in the digital age, so we can't ignore this element; Mamaearth is well aware of this. Mamaearth's advertising strategies make use of digital tools. The internet is becoming more widely used, and most people rely on it for all of their information. As a result, the brand management strategy makes use of these new channels to increase brand awareness and reach a larger audience. The product is available for purchase on Mamaearth's official website, Amazon, Flipkart, and other digital shops. As a result, the organisation is developing a strong internet presence. The majority of its sales are made through online sources.

**BRAND MESSAGE** - The brand message is highly significant since it summarises your brand. As a result, it should be exact, clear, and interesting. It should start with the customers and give them a sense of belonging. "Goodness Inside" is the brand's mission and motto. It ensures that the brand does not endanger the health of its customers. It provides goods free of pollutants and

hazardous chemicals. The brand's products are more expensive, but they are of the finest possible quality.

**MARKETING ON SOCIAL MEDIA** - Do you know how much time people spend on social media? Every second person is the answer. We live in the age of social media, where everything can become a meme and anyone may become celebrities overnight. It has the power to make or break people. People, moreover, believe what they see on social media. Mamaearth understands that it is a forum for ordinary people to express themselves. They approach various influencers to spread the word about Mamaearth because the demographic they're seeking for is on social media. Twitter, Facebook, and Instagram are just a few of the social media platforms where the company is active. Influencer Marketing, which includes hashtags across platforms, is Mamaearth's most effective strategy. One of the most important cornerstones of marketing strategy is brand endorsement. It steadily raises the brand's total worth. The truth is, when a celebrity endorses a product, people are bound to believe it. Similarly, if a brand endorses our favourite show, we will undoubtedly pay attention to it. After Shilpa Shetty, a well-known actress, became a shareholder and product ambassador, Mamaearth's growth surged. She works on the development of new technology as well as marketing techniques. The actress promoted the company on social media. Not only that, but the corporation also sponsors Big Boss, a popular reality television show.

**WORD OF MOUTH** - This strategy may appear hazy, strange, and sham to some of you, yet it actually works. You may have heard that the word travels quicker than air, and this is correct. When you hear something from someone you know, you believe them completely, and Mamaearth intended for this to happen. They begin targeting Mom bloggers and customers with a large following, asking them to write about their experiences with the product. Because the company believes in the power of moms, it has chosen a word-of-mouth strategy in which mothers may tell others about the company and how it delivers the greatest product for their children.

**TV COMMERCIALS** - TV commercials are considered a conventional and rather outdated strategy. As a result, the corporation was initially sceptical of the idea of advertising the brand through television ads. They want to produce something different, yet people are influenced by television, which is why they chose to dabble with television advertisements as well. They did air their first commercial for onion hair oil on the big screen. The good news is that they concentrated on the advantages of utilising onion hair oil and how the person learned about this brand from one of its employees. We expect to see a lot more of Mamaearth in commercials in the future.

**YOUTUBE MARKETING** - Without a doubt, YouTube has become one of the most powerful platforms for brand recognition. Almost half of the people would rather watch YouTube review videos than read about it. This is precisely why companies want to make the most of the platform. There are many YouTube influencers with a large number of subscribers who can help promote the product. Mamaearth's marketing strategy has been improved by reaching out to YouTube personalities. Not only that, but the marketing expense is low in comparison to traditional advertising.

## REVIEW OF LITERATURE

The purpose of this study was to learn about college students' perceptions and awareness of online buying. The study considers the amount of awareness, factors that influence online shopping, and problems encountered while shopping online **Joseph, (2017)**. **Anjana S. (2018)** aimed to discover the elements influencing customers' purchasing behaviour for cosmetic items in her study. Quality, pricing, brand, packaging, and advertising, she concluded, are major factors influencing consumer behaviour in the cosmetics industry. **Lakshmi Y P Sai & Suresh Babu M (2019)**, studied the factors influencing consumer behavior towards cosmetics. They discussed that various internal factors like attitude, motivation, perception, and learning along with social and cultural factors and other factors such as price, advertising and physical attributes shape the consumers' behavior. **(Kochina, 2019)** Consumers are aware of Natural & Healthy products and there is an inclination towards sustainable buying. 35% of buyers prefer green, healthy and toxin-free products whereas 33% of buyers are neutral about it. Products with high concern and motives offer high prices and consumers are even willing to pay a bit more for them. **Lavuri (2019)**, says buying behavior of personal care products. Peoples use personal products utilized to otherization. The consumer prefers to purchase the product brand name, quality, price, and brand loyalty impact on consumer and influences study's objective is to examine the impact of decision influencers on buying personal care products. **Kanagaraj(2020)**, In this research study, the author explains the satisfaction of Himalaya products in Coimbatore. The product is Ayurveda products, natural and used ingredients in herbal products have helped people live healthier, rich lives. Himalaya focuses on people get getting healthy and wellness of their health. The objective is to identify the socio-economic factors affecting consumer user satisfaction with Himalaya products. **Kalyani (2022)**, this study is to understand and analyze the consumers buying behavior on herbal personal care products. The author says several brands of herbal products are chemical-free, environment-free, hygiene, and vegan, and the products are consumers easily with home delivery, digital payment,

and many promotional offers. It's suitable for their skin and hair type. The social media platform is an important role in selling products. The study highlights consumer perception and behavior, awareness about more herbal products, frequency of purchase, and more

### **STATEMENT OF THE PROBLEM**

The purpose of this study is to determine consumer satisfaction with Mamaearth brand items. Consumer satisfaction research assists in identifying consumers and learning about their preferences, choices, tastes, and other quality factors through a thorough study and survey using dynamic statistical approaches. Some customers are shifting their preferences to other brands as a result of the launch of new brand cosmetics, so it's important to figure out why customers are moving to other brands and why they choose the particular brand in the market.

### **SCOPE OF THE STUDY**

This research examines the impact, utility, efficacy, and efficiency of Mamaearth's marketing methods on the cosmetic industry's success, as well as the satisfaction and preference for the Mamaearth brand. Mamaearth cosmetics are given great attention.

The project begins with in-depth information on marketing techniques and the influence of customer satisfaction measurement in the cosmetics business. It also covers subjects like data gathering tools and the project's research methods. The data is then thoroughly analysed, and the results are used to draw a conclusion. The research will aid in a better understanding of marketing techniques for Mamaearth cosmetics. A questioner was created for the study based on numerous characteristics to judge and understand client satisfaction with Mamaearth cosmetics. The project's primary target audience was Mamaearth consumers. Because this research is limited to Mamaearth, it examines consumer happiness, attitude, perception, and marketing techniques in relation to Mamaearth as a cosmetics brand.

### **OBJECTIVES OF THE STUDY**

1. To assess the perceived quality of Mamaearth products
2. To identify the reasons for choosing the Mamaearth products
3. To study the satisfaction level of consumers towards Mamaearth products

### **METHODOLOGY OF THE STUDY**

**Data collection**

The source of data includes primary and secondary data sources.

**Primary data**

Primary data is collected from the respondents who are consuming Mamaearth products. It was collected through the questionnaire.

**Secondary data**

Websites, Newspapers, Publications, journals, and internet sources

**Size sample**

The study's sample size was set at 135 participants.

**Sampling method**

Convenience sampling

**Study instrument**

Questionnaire

**Statistical tools used**

Percentage analysis and Weight average

**Statistical package used**

MS-excel and SPSS

**LIMITATION OF THE STUDY**

- Time is a major constraint; thorough research was impossible owing to time constraints. Because of their psychological impulses, customer opinions may change over time.
- The accuracy may have degraded as a result of respondent consumers recording what they believe is correct rather than what they actually do.
- The marketing strategy is a vital part of getting the message across.

**Results and Discussion**

Table -1

## Personal details of the Respondents

Variables	Classification	Number of respondents	Percentage
Age	15-25	61	45.18
	26-30	58	42.96
	31-40	11	8.15
	Above 41	5	3.70
Education	School	16	11.85
	Diploma	27	20.00
	UG	54	40.00
	PG	38	28.14
Occupation	Students	58	42.96
	Employed	37	27.40
	Self employed	21	15.56
	Professional	14	10.37
	Home maker	5	3.70
Personal Income Per month	Rs. 5000 - Rs.10000	29	21.48
	Rs.10001- Rs. 25000	49	36.30
	Rs. 25001- Rs. 40000	43	31.85
	Above Rs. 40000	14	10.37
Usage of Cosmetics	Yes	122	90.37
	No	13	9.62
Shopping Destination of cosmetics	Super market	43	31.85
	Fancy store	27	20.00
	Online shopping	38	28.15
	Malls	27	20.00

Source: Primary data

Table-1 Shows that 45.18% of the respondents are in the age of 15-25 years, 42.96% of the respondents are between 26-30 years, 8.15% are between 31-40 years and 3.70% of the respondents are above the 41 years.

Respondents' educational qualification is also displayed in the table-1 that 11.85% of the respondents have completed their school, 20.00% of the respondents are Diploma holders, 40.00% of the respondents are graduates, and 28.14% of the respondents are post graduates. It is observed that majority of the respondents (40.00%) are graduates.

Table 1 Classified that respondents based on their occupation. 42.96% of the respondents are students, 27.40% of them are employed, 15.56% of the respondents are self-employed, 10.37% of the respondents are professional, and 3.70% of the Respondents are homemaker. It is observed that most of the selected respondents (42.96%) are students.

The above table classified the respondents based on their personal income. 21.48% of them are earning Rs. 5000 - Rs.10000 as monthly income, 36.30% of the respondents earn Rs.10001- Rs. 25000, 31.85% of the respondents are earning between Rs. 25001- Rs. 40000, 10.37% of the respondents earn above Rs. 40000 per month.

Above table also exhibits the respondents' statement about their Usage of Cosmetics. 90.37% of the respondents are using cosmetics and the remaining 9.62% of the respondent are not using cosmetics products.

Respondents Shopping Destination of cosmetics is also displayed in the table-1. It is revealed from that 31.85% of the respondents are from supermarket, 20.00% of them were fancy store, 28.15% of the respondents through online shopping, and 20.00% of the respondents are from shopping mall.

**Table-2**

### Quality of Mamaearth product

S.No.	Quality	Number of respondents	Percentage
1	Very highly quality	11	8.1
2	High quality	45	33.3
3	Neutral	59	43.7
4	Low quality	20	14.8
5	Very low quality	0	0
	<b>Total</b>	<b>135</b>	<b>100</b>

Source: Primary data

Table-2 reveals the quality of Mamaearth product by the respondents. It is clear that 8.1% of the respondents are given as very high quality, 33.3% the respondents are given as high quality, 43.7% of the respondents are given as neutral, 14.8% of the respondents are given as low quality, there is no respondents in very low quality.

**Table-3**

**Reason for choosing Mamaearth product**

S.No.	Reason	Number of respondents	Percentage
1	Cheap price	7	5.2
2	Brand name	45	33.3
3	Quality	48	35.6
4	Variety	24	17.8
5	Advertisement	11	8.1
	<b>Total</b>	<b>135</b>	<b>100</b>

Source: Primary data

Table-3 depicts the reason for choosing Mamaearth brand by the respondents. It is clear that 5.2% of the respondents are choosing for the reason of cheap price, 33.3% of the respondents are choosing for the reason of brand name, 35.6% of the respondents are choosing for the reason of quality, 17.8% of the respondents are choosing for the reason of variety of the product and 8.1% of the respondents are choosing for the reason of advertisement.

**Table-4**

**Satisfaction level towards Mamaearth Product**

Factors	HS	S	N	DS	HDS	Total	Mean score	Rank
Price	14	97	17	6	11	135	3.87	<b>II</b>
Quality	85	23	21	1	5	135	4.13	<b>I</b>
Variety of product	30	24	73	6	2	135	3.55	<b>III</b>
Packing	23	42	26	41	3	135	3.30	<b>IV</b>

Availability in all shop	22	45	25	10	33	135	3.10	V
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Source: Primary data

Table-4 depicts various satisfaction level towards service provided by Mamaearth products. The respondents are more satisfied with the quality of Mamaearth products and their mean score depicts the same. Respondents ranked price in the second place followed by variety of product in the third place. However the respondents are not much concerned with parking and availability of the products in all the shop.

### SUGGESTIONS

- The majority of responders believe Mamaearth products are overpriced. As a result, the corporation is advised to lower the product's price.
- The majority of Mamaearth customers are having trouble getting enough of their products. Consumers expect the company to provide free deals, so the corporation should remember to take measures to improve the quantity. As a result, the corporation should take the appropriate efforts to give a variety of offers in order to attract a larger market.
- In order to gain the attention of potential customers, attractive and efficient advertisements should be delivered continuously through numerous mediums.
- Because the majority of respondents are influenced by advertisements, particularly those on the Internet, it is in the company's best interests to improve the impact of advertisements in other media as well.

### CONCLUSION

The impact of advertising on the brand image and brand identity of cosmetics was investigated in this study. According to a research, the majority of people in India utilise Mamaearth goods. The product satisfies both the company's and the customers' needs. People welcomed the simple availability of many things, according to one study. Cosmetics industry in India - this section clarified that cosmetics are not a new concept in India. People take physical care of themselves. The addition of chemicals and technology to our personal care is the sole difference. Cosmetics and personal care goods require advertising and marketing to educate consumers about new items and promote brand loyalty. Advertising is widely used on television and in print media such as newspapers and publications, particularly women's magazines.

Households are given toiletry samples, and bag products are tied to periodicals. 35.6% of the respondents are choosing for the reason of quality and the respondents are more satisfied with the quality of Mamaearth products and their mean score depicts the same. Free gifts are offered and advertised in the major local newspapers and on the Internet during promotional seasons and the Mamaearth product's image and identity are predominantly domestic products, with a strong emphasis on celebrity recognition. Year after year, Mamaearth's marketing approach is to introduce new products. Mamaearth will continue to help cosmetics companies design appropriate goods, price them effectively, and boost their profitability by providing tools such as customer comprehension.

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## “A STUDY ON TALENT MANAGEMENT; WITH SPECIAL REFERENCE TO HOTEL INDUSTRIES IN MYSORE DISTRICT.”

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### **ABSTRACT**

Talent management is a business strategy that organizations believe will enable them to retain their top talented employees and improve organization's performance. It is the process of effectively hiring the right talent, preparing them to take up top positions in future, assessing and managing their performance and also preventing them to leave the organization. The performance of every organization depends on the performance of their employees. If the employees have unique competencies which the competitors cannot replicate, the organization automatically gains a competitive edge over its competitors. So, for managing this unique human capital, the organizations are focusing on creating effective systems and processes for talent management. The organizations are also striving hard to retain their top/key talent because if they leave, the complete repository of knowledge is also gone out of the hands of the organization. The purpose of the study was to find out the impact of talent management on organizational performance in few hotel industries situated in Mysore District. The findings show that there is partial impact of talent management on the performance. If this talent is appropriately managed and deployed at the right places, then, the organizations can make their captive use in order to increase their growth and profitability.

**KEY WORDS;** Talent Management, Employees perception, Demographic Profile, Talent Management Strategies.

### **INTRODUCTION**

Human Resource is the sum total of inherent abilities, acquired knowledge and skills represented by the talents and aptitudes of the employees of an organization. Human resources should be utilized to the maximum possible extent in order to achieve individual and organizational goals. An organization's performance and resulting productivity are directly proportional to the quantity

and quality of its human resources. That is the reason that the concept of talent management has received a significant degree of professional and academic interest. Talent Management can be defined as the process of recruiting, training, developing, managing, assessing and maintaining an organization's most valuable resource i.e. people. In this competing marketplace, talent management is one of the most important drivers for organizational success and growth. The organizations must be able to foresee and grab the new opportunities before its competitors. So, in the current scenario, Talent Management has become a new challenge for the next generation „People Managers“. It has become extremely important in this competitive market that the organizations should align their talent management initiatives with their business goals. They should also encourage such culture where talented employees are given abundant career development opportunities so that they can perform to the maximum level. It is the top/key talent only which contributes to the productivity of the organization as they help to generate revenues by creating value for their clients. So, as any organizations performance and success is dependent on how the organization manages and retains its talent pool, proper measures should be taken to implement the best talent management practices in the industry which will help the organization to gain a competitive edge over the competitors and also will help the company to always stay ahead in the market. The process of talent management covers all the important aspects of an employee's "life cycle" which are recruitment and selection, enhancing their knowledge by providing the appropriate trainings, performance management and succession planning for future. The top management and the HR managers have always been focused on basic Talent Management but to reach the desired levels of success, they require committed, engaged and high-performing employees. It's quite clear that people are an organization's most important assets and as a result, the corporate is adopting different ways to build decision making platforms which are data-driven. A strategic talent management plan helps the organizations to:

Become "proactive" rather than being "reactive" and also to adopt changes instantly.

- ❖ Identify essential skill sets required and competencies to be developed in all employees, and therefore,
- ❖ Minimize the training costs by concentrating on the major and key development areas.
- ❖ Improve the recruitment process by distinguishing high calibre candidates using job descriptions based upon the capabilities of the high performing employees possessing highly valued company or industry competencies.
- ❖ Helps the organization to also minimize the attrition as it will be successful to retain its top/key talent with the help of its talent management initiatives.

- ❖ It helps the organization to tremendously increase its performance, productivity and also the revenues or profitability

## ORGANIZATIONAL PERFORMANCE

Developing and retaining a workforce which contributes to the performance of the organizations is one of the biggest challenges that the management is facing today. In order to grow and progress in this competitive market, the main goal of every organization is to perform continuously and on a regular basis. So, in order to evaluate the organizations and their actions, organizational performance is the most important criteria. Organizational performance can be defined as a set of financial and non-financial index which provides the information on the level of achievement of its goals and objectives. The organizational performance is considered to be high when all of its parts function together in order to achieve tremendous results and these results are measured in terms of the value that it creates and delivers to its clients or customers. Every organization needs talented employees to increase the productivity and maximize the overall organizational performance. It is possible for organizations to gain a sustainable competitive advantage over its competitors only when its human resources are innovative and creative. When the entire global market is assessed, it is seen that companies achieve the top position in their market and produce perfect business outcomes if they give priority to develop themselves, their people and deliver differentiated products and services to their customers. So, in order to do so, organizations must identify the talents, assess their potentials and develop their skills and abilities accordingly. There are some factors which are identified by the researchers which contribute towards the performance of the organizations:

- **Continuous learning:** The organizations need to develop certain systems which help its employees to learn, learn and learn. Such a culture greatly helps the organizations to become high performers in the industry.
- **Focusing on the customer results/outcomes:** The organizations need to focus on the value which they create for its customers. If the customers are satisfied, then, automatically the revenues and the organizational performance go up.
- **Aligning systems and structures:** If the organizations want to perform better, then, they need to align their systems, structures and all the processes with the business goals and strategies and also need to go along with its vision and mission.

- **Employee involvement:** The organizations should work towards creating high involvement of its employees. It can do so by giving autonomy to its talented employees so that they are to make their own decisions, respecting their creativity and unique ideas and also by encouraging them to perform better.
- **Information sharing:** There should be an open communication in the organization and there is should be a free flow of the information as well. Employees should be informed about all the changes made and decisions taken and this would help the organization to perform better.

The organizational performance can be measured in both the financial as well as the financial terms. The financial measures that show whether the organization is performing well or not are the return on investments, high revenues, sales growth and high market share. On the other hand, the non-financial measures of organizational performance are the satisfaction of employees, customer satisfaction, less complaints, good relationship with the suppliers and also the trust of the employees in the leadership. If the organization is performing well in both these areas, then, it can be termed as a high performing organization. To drive this high performance, the involvement of the talented workforce is needed because they are the core competencies and assets which a company has. This human or intellectual capital of the organization helps it to achieve its goals and objectives and also to generate above average returns and excellence as well.

## REVIEW OF LITERATURE;

**MD.ABULMOHAIMEN** (2016) the study was undertaken on Talent Management: Three new Perceptions intended for managing and retaining Talent in Bangladesh. The study revealed that having talented employees helps organizations to drive and be competitive but it is difficult to acquire such peoples. This paper mainly focused innovative campaigns, for instance, global trainee and management cycle star programs have been created to motivate talented graduates to join the companies and to motivate existing talented employees to being more dedicated and engaged upon work within the organization. This study also mainly suggested some important steps and methods that can be applied in the organizations which are totally running and managing by the HR department. Moreover, these methods and steps can become successful by managing low rate of talent turnover which is quite sensitive cases will be arises recent decades so its become challenging issue in the organizations.

**DR. PUJA SAREEN (2017)** ) the study was conducted on “A Study of Talent Management and Its Impact on Performance of Organizations” This paper makes an attempt to study the employee perception towards talent management strategies among software developers working in IT companies in Chennai city. This study mainly measures that employee perception, talent management strategies such as alternative work schedule, wellness programs, mentoring and coaching, job rotation and rewards and recognition system, this study also gives Suggestion Program, Training opportunities for employees. This paper also attain demographic variables such as gender, age, experience, income & designation. Descriptive statistics of the demographic variables of the respondents are tabulated and measure the significant level of chi-square test was employed among demographic variable and Talent Management strategies.

**Anthony McDonnell (2018)** the study emphasized on Strategies And Practices Of Talent Management And Their Impact On Employee Retention And Effectiveness. This paper studied the strategies and practices of talent management and their impact on employee retention and effectiveness of its execution at AREVA T&D India Ltd. The prime focus of this study has to analysis the talent management initiative taken by the HR professional and find out the effectiveness of such initiatives as well as the satisfaction level of the employees. Simple percentage analysis, Chi square test were used for evaluation. The study revealed that employees perception is independent from satisfaction but experience of employees does affect the satisfaction with the practices of talent management.

**OLUDAYO OA (2019)** this paper focused on perception and attitude of employees towards training and development in public sector unit This study aims at Employee involvement attitude and perception have a significant impact on their performance which in turn decides the performance of the organization. There is a necessity for fulfilling the needs and wants of the employees which would be the outcome of their enthusiasm shown by them towards their work accomplishment. This paper mainly focused employees’ attitude towards the performances of job and also include training and development aspects. The researcher focuses his study on the perception and attitude of the employees towards training and development of employees, career development efforts to improve individual, group and organizational effectiveness in Public Sector Unit.

**VICTOR OLADAPO (2020)** carried out research on “ The impact of talent management on retention” This study conducted on talented workers over the coming decades, The challenge comes at the same time as seismic shifts in the ethnic composition of the American workforce, global economic stagnation. This study in conducted on American business companies remain

competitive, executive management must develop stable, long-term talent management strategies to attract, hire, develop, and retain talent. This study sought to understand the challenges and successes of talent management programs and the reasons some companies choose not to have a program. This study also tested the predictive power of job security; compensation and opportunity on retention rates improved because in foreign companies they using technology based testing while retain the employees in the organization.

## **OBJECTIVES OF THE STUDY;**

**The following are the major objectives of the study:**

1. To highlight the demographic profile of the employees of selected hotels situated in Mysore District:
2. To assess the employees perception towards on talent management;
3. To offer suggestions in the light of the study.

## **RESEARCH METHODOLOGY:**

The present study has been collected from both primary and secondary sources. The primary data was collected by on the basis issue of questioner; the Survey from The questionnaire was designed for collection of data. Population for the study was Employees of selected hotel industries in Mysore District. The sample size for study was only 100 respondents. Due to time constrain, the sample size as only 100, which is considered optimum for the study. The method of sampling used is Random sampling. Secondary data was gathered from different sources such as, Internet, website, Professional Magazines, Newspapers refereed journals related on employees perception towards on talent management and talent management strategies etc. The analysis of data is done using percentage and quantitative method for tabulations and represents the data using graphical method.

## **ANALYSIS & INTERPRETATION**

### **❖ The demographic profile of the employees:**

Table No.1 represents that demographic profile of the employees or respondents of hotel industries in Mysore District. Overall 100 respondents out of that Moderate number of 58 male respondents and 42 female employees or talents are working as Mangers,Stewards, Marketing managers, Maintenance supervisors, House keepers, Servers, Chefs and receptionist. In the context

of age pattern majority 49.00 percent numbering i.e., 49 of the respondents belonging age group of between 25 to 30 years, this shows the organization more number of having younger talents. Further educational qualification of the employees majority 53.00 percent of the respondents they hold degree and around 26.00 percent of the respondents numbering i.e., 21 equally qualified with SSLC and they have taken a training in respective field.

**Table No.1**

**Demographic Profile of the Employees**

SI.No.	Particulars	Frequency	Percentage
1.	<b>Age pattern ;</b>		
	a) Between 25 to 30 years	49	49.00
	b) Between 30 to 40 years	31	31.00
	c) Above 40 to 55 years	20	20.00
2.	<b>Gender ;</b>		
	a) Male	58	58.00
	b) female	42	42.00
3.	<b>Working Experience;</b>		
	a) Between 2 years to 5 years	30	60.00
	b) Between 5 years to 10 years	15	30.00
	c) Above 12 years	05	10.00

Source: Field Survey.

**❖ Employees Perception towards Talent Management:**

Table No 2. It is evident that employees perception towards talent management. All are respondents i.e., 65.00 percent employees were satisfied with the organization provide excellent orientation Programme for new employees and 23 percent employees says is Good and remaining 12 respondents says is an Average. Majority 50.00 percent of the respondents they agreed good training Opportunities available within the organization. Majority 50.00 percent of the respondents were opinion that organization having good best employee turnover. Around 50.00 percent and 60.00 percent of respondents opinion that organization having excellent effectiveness policy of HRM and organization will managing good high quality of Talent pool, respectively.

**Table No.2**

**Employees Perception towards on Talent Management**

SI	Options	Excellent	Good	Average	Bad	Very Bad
1.	The Orientation Programme for new employees	65 (65.00)	23 (23.00)	12 (12.00)	00 (00.00)	00 (00.00)
2.	Training Opportunities	40 (40.00)	50 (50.00)	00 (00.00)	10 (10.00)	00 (00.00)
3.	Tools to identify talent potential	30 (30.00)	50 (50.00)	05 (10.00)	05 (10.00)	00 (00.00)
4.	Choosing career paths	05 (10.00)	20 (40.00)	10 (20.00)	10 (20.00)	00 (00.00)
5.	Best employee turnover	10 (10.00)	50 (50.00)	25 (25.00)	05 (05.00)	05 (05.00)
6.	HRM policy effectiveness	50 (50.00)	20 (20.00)	05 (05.00)	15 (15.00)	00 (00.00)
7.	Talent pool	30 (30.00)	60 (60.00)	10 (10.00)	00 (00.00)	00 (00.00)

Source: Field Survey.

❖ **Talent Management strategies preferred by the employees:**

Table No 3. Shows that talent management strategies preferred by the employees from the side of organization. Majority 60.00 percent of the respondents opinion that excellent alternative work schedule (AWS) available for the employees in the organization. Majority 65.00 percent and 70.00 percent of the respondents they were opinion that excellent working shifts and new assignments, available in the organization and also provide good rewards and recognition system respectively. Among 50.00 percent and 40.00 percent of respondents not satisfied with organization were provide bad training opportunities related to job as well as personal development and also provide very bad lower retention bonus and scheme to the employees, respectively.

**Table No.3**

**Talent Management strategies preferred by the employees**

SI	Options	Excellent	Good	Average	Bad	Very Bad
1.	Alternative Work Schedule (AWS)	60 (60.00)	20 (20.00)	10 (10.00)	10 (10.00)	00 (00.00)
2.	Mentoring/Coaching	10 (10.00)	55 (55.00)	25 (25.00)	10 (10.00)	00 (00.00)

3.	Working shifts and New Assignments	65 (65.00)	25 (25.00)	05 (05.00)	05 (05.00)	00 (00.00)
4.	Rewards and recognition system	20 (20.00)	70 (70.00)	00 (00.00)	10 (10.00)	00 (00.00)
5.	Training opportunities - job related & Personal Development	10 (10.00)	40 (40.00)	00 (00.00)	50 (50.00)	00 (00.00)
6.	Retention bonus / scheme	40 (40.00)	10 (10.00)	20 (20.00)	20 (20.00)	10 (10.00)

Source: Field Survey.

### FINDINGS OF THE STUDY:

Overall 100 respondents out of that Moderate number of 58 male respondents and 42 female employees or talents are working as Managers, Stewards, Marketing managers, Maintenance supervisors, House keepers, Servers, Chefs and receptionists.

- In the context of age pattern majority 49.00 percent numbering i.e., 49 of the respondents belonging age group of between 25 to 30 years, this shows the organizations are having more number of younger talents.
- Further educational qualification of the employees majority 53.00 percent of the respondents they hold degree and around 26.00 percent of the respondents numbering are matriculate,
- Around 50.00 percent and 60.00 percent of respondents opinion that organization having excellent effectiveness policy of HRM and organizations will manage good high quality of Talent pool, respectively.
- Majority 50.00 percent of the respondents were opinion that organization having good best employee turnover and around 40.00 percent of the respondents are satisfied with choosing good career paths and also overall organization performance was good.
- Talent management strategies preferred by the employees. Majority 60.00 percent of the respondents opinion that excellent alternative work schedule (AWS) available for the employees in the organization.
- Among 50.00 percent and 40.00 percent of respondents not satisfied with organization were provide bad training opportunities related to job as well as personal development and also provide very bad lower retention bonus and scheme to the employees, respectively.

### SUGGESTIONS FOR THE STUDY:

- ❖ The organizations have implemented effective talent management processes; it helps to hunt best talent pool. Thus, recognizing the strategic importance of adapting Talent Management would allow the company to gain a competitive advantage against others that are not concerned with these practices.
- ❖ The organization should identify the crucial talent initiative to attract and retain the employee. They should know which talent management elements can have the greatest impact on the business and therefore provide a better basis for prioritization and implementation.
- ❖ The organizations provide more certified training should be given to the employee to boost their effectiveness and efficiency. It should be used as a tool of motivation.
- ❖ Talent management processes must create a comprehensive profile of their talent. They must be able to track meaningful talent related information about all of their people - employees, contractors, or candidates.
- ❖ To special training and development for high potentials should be in place to be able to fill the pivotal positions when required. Finally, a comprehensive HR structure should be in place in order to support all the stages from attracting to retaining Talents.

## CONCLUSION

According to the analysis and the above study, the talent management is positively related to the overall organizational performance. But there is a partial impact of the practices on the performance. The employees feel that in order to improve its talent management and also the performance and productivity, the organizations can improve their learning and development initiatives and also focus a little more on their retention strategies. Talent management is the need each and every organizations to address the developmental needs of talents , Majority of the hotel industries recruits internally for both general positions and key positions as they are aware of the culture and familiar with the environment. This is one of the methods the firm uses to retain their talented staff by drawing a career path for them as well as identifying them as successors. Sometimes they depend on recruiting agencies for specific positions that cannot find internal replacement or to fill confidential positions. The present study exhibits employee perception towards on talent management, talent management strategy preferred by the employees based on various demographic aspects. The organizations develop their staff by providing them with complementary training courses along with on-the-job training, which was the most implemented.

A special focus was paid on working shifts and clear realization knowing that Talents are not necessarily leaders. Competencies of talents are more essential than their qualifications.

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## CYBER CRIMES IMPACT ON THE SOCIAL COSTS OF AN ECONOMY: SOME INSIGHTS AND ESTIMATES IN THE INDIAN CONTEXT

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### **ABSTRACT:**

Cyber Security plays an important role in the field of information technology. Securing the information has become one of the biggest challenges in the present day. Whenever we think about the cyber security the first thing that comes to our mind is cybercrimes which are increasing immensely day by day. Today, cyber security requires the tools and skills to respond to evolving threats. The online medium has created a multitude of opportunities, but we must also analyse current and potential cyber security challenges. Cyber security today is not one single problem, but a problematique - a collection of challenges, none of which can be resolved in isolation. Cyber security is the protection of sensitive data, online privacy and maintaining the integrity of essential computer assets. It defends and protects against all threats and cyber-attacks regardless of the type of target; whether this be an individual, group or singular computer. It is important for everyone to learn and know about cyber security so that understanding, knowledge and awareness will be increased on how to act safe, secure and responsibly online.

One of the largest vulnerabilities in cyber security is the human element. Oftentimes it is lack of information, training and awareness that makes system more easily accessible to cyber-attacks. So, it is essential that everyone, not just cyber “specialists” receive training and knowledge data protection, information security, defense against cyber-attacks. Cyber Crimes affects Economy and Business as well as there are many cases of Data Theft and other Cyber Attacks on some big business houses recorded in the last few years. Every year Companies spend millions of Dollars in order to secure their system from any kind of Cyber Theft, misuse of their documents. Cyber Crimes not only affect any individual economically but they affect them mentally also like in case of woman’s outraging the modesty of women by sharing their pictures on internet and it also hamper the mental growth of any teenager these days as many teenagers get into this cyber trap and ending their lives by suicides and depression. The current paper throw alight on various types

and its effects on individuals and institutions at large. it also warns individuals to use the digital gadgets with care and concern.

**KEYWORDS:** data security- financial loss- safety and security- threatens-privacy risks

## **INTRODUCTION**

Cyber Security is as important as Economic Safety in these days”. Like many other crimes Cyber Crimes are also nowadays increasing. Crime committed using a computer and the internet to steal a person’s identity or illegal imports or malicious programs. Cyber Crimes is very harmful to each and every individual as it directly includes theft of their personal data which can harm their respect in the society, Cyber Crime have a great deal of negative impact on our society and economy and business because for our society Cyber Crimes could be seen in the form of bullying, identity theft, cyber stalking and cyber defamation which results creating a very awkward situation for the victims of these attacks.

In the Indian context, the issue of cybersecurity has received relatively little attention from policymakers, to the extent that the government has been unable to tackle the country’s growing needs for a robust cybersecurity apparatus. In short, India lacks effective offensive and defensive cybersecurity capabilities, exacerbated by the lack of access to mechanisms vital to confronting sophisticated malware like Stuxnet, Flame, and Black shades (Kaushik 2014). Moreover, cybersecurity projects and initiatives in India are far fewer in number as compared to other developed nations. Many of the relevant projects proposed by the Indian government have remained on paper only. In addition, approved projects like the National Critical Information Infrastructure Protection Centre (NCIPC) and National Cyber Coordination Centre (NCCC) of India have failed so far to materialize. Worse, the 2013 National Cyber Security Policy of India has failed to bear fruitful results, as its implementation seems to be weak in numerous aspects, including privacy violation in general and intrusion into civil liberties in particular.

At the same time, India faces a vital need to protect critical infrastructures such as banks, satellites, automated power grids, and thermal power plants from cyber attacks (Kaushik 2014). Indeed, the Indian government has admitted that there has been a large spike in cyberattacks against establishments such as the banking and financial services sector. Malicious activity on the Internet

in India has ranged from viruses, hacking, identity theft, spamming, email-bombing, web defacement, cyber defamation, to the denial of service.

### **TELECOMMUNICATIONS AND CYBER SECURITY**

Telecommunications has emerged as a key driver of social and economic development in India. Today, India is assessed as one of the fastest growing telecom markets across the globe, with the number of telephone connections rising to 943 million by February 2012 alone. The same month, the country counted as many as 911 million mobile phone connections (NTP 2012) and nearly 160 million Internet users, of whom almost half were on the social media. The Indian government has stated its intent to provide 600 million broadband connections as well as 100 percent teledensity by 2020 (Singh 2013).

At the same time, the substantial growth of this sector has been accompanied by a variety of cyber threats and attacks. It is argued that information holds the gravest risk to the telecommunication sector, due to the increasing number of cyber frauds. For instance, on August 7, 2013, hackers penetrated the database of India's Bharat Sanchar Nigam Limited (BSNL) and installed spyware in the systems. The BSNL's Office Domain was hacked again on October 12 of the same year, and some important information was stolen (Dilipraj 2014). Similarly, on June 9, 2013, some anonymous hackers breached the Mahanagar Telephone Nigam Limited (MTNL) website by using the DDoS technique; the intention behind the attack was to oppose Internet censorship allegedly supported by the MTNL (Reddy 2012).

Meanwhile, on the more individual level, mobile phones are being used for the storing of sensitive data like email, contact information, and passwords, in addition to other potentially vulnerable activities. And recent innovations in mobile commerce have enabled users to carry out money transactions by phone, processing point-of-sale payments and even paying at cash registers from their smart phone applications like Paytm, MobiKwik, and others. Such open and valuable networks have now become more and more vulnerable targets for attacks (Ruggiero and Foote 2011). As of 2014, nearly 7.9 percent of mobile devices had been targeted and the country ranked second on the list of cyberattacks on such devices. As the preceding pages make clear, cyberattacks targeting critical information infrastructures in India, such as energy, financial services, defence, and telecommunications, have the potential of adversely impacting upon the nation's economy and public safety. From the perspective of national security, the securing of the critical information infrastructure has become a top priority, in line with policies already adopted by other digital

nations (DSCI 2013). Indeed, the ever-growing interdependence of the digital sphere, across borders, has provoked the emergence of cybersecurity as a major component of national security strategies in states across the globe (Kumar and Mukherjee 2013).

### **SOME STATISTICAL EVIDENCES ON DATA SECURITY LAPSES: GLOBAL SCENARIO**

Around five million people globally have had their data stolen and sold on the bot market till date, of which 600,000 are from India, making it the worst affected country, according to one of the world's largest VPN service providers NordVPN. Bot markets are used by hackers to sell stolen data from victims' devices with bot malware. The study by NordVPN, of Lithuania's Nord Security, said the stolen data included user logins, cookies, digital fingerprints, screenshots and other information, with the average price for the digital identity of a person pegged at 490 Indian rupees(\$5.95). NordVPN tracked data for the past four years, ever since bot markets were launched in 2018.

India has been dealing with cyber security concerns for a while. As recently as last month, multiple servers of the All India Institute of Medical Sciences (AIIMS), a federal government hospital that caters to ministers, politicians and the general public, were infected on Nov. 23, a senior police official told Reuters. A week after the ransomware attack on AIIMS, the Indian Council of Medical Research (ICMR) faced around 6,000 hacking attempts within 24 hours on Nov. 30, Times of India reported.

Indian cyber security rules have tightened only earlier this year, with the Indian Computer Emergency Response Team (CERT) requiring tech companies to report data breaches within six hours of noticing such incidents and to maintain IT and communications logs for six months. NordVPN's study looked into three major bot markets - the Genesis market, the Russian Market, and 2Easy - and found stolen logins including those from Google, Microsoft and Facebook accounts.

### **THE COST OF CYBERCRIME**

Cybercrime up 600% Due to COVID-19 Pandemic. It is estimated that, worldwide, cyber crimes will cost \$10.5 trillion annually by 2025. The global annual cost of cybercrime is estimated to be \$6 trillion per year. Cybercrime cost makes up a value worth 1% of the Global GDP. On

average, a malware attack costs a company over \$2.5 million (including the time needed to resolve the attack). Ransomware is 57x more destructive in 2021 than it was in 2015. There are 30 million SMB in the USA and over 66% of all SMB's had at least 1 incident between 2018-2020. The average cost of a data breach to small business can range from \$120,000 to \$1.24 million. Data breach costs rose from \$3.86 million to \$4.24 million in 2021, the highest average total cost in the 17-year history of this report.

The average cost was \$1.07 million higher in breaches where remote work was a factor in causing the breach. Security Driven AI had best cost mitigation, saving up to \$3.81 million (80% cost difference). Zero trust security policies saved \$1.76 million per breach. 10% increase in average total cost of a breach from 2020-2021. It costs \$180 per record with PII that was breached. Over 50% of all cyber attacks are done on SMB's. Enterprises experienced 130 security breaches per year, per organization, on average. Enterprises saw the annual cost of cyber security increase 22.7% in 2021. The annual number of security breaches on enterprise organizations increased by 27.4%.

On average enterprises needed 50 days to resolve an insider's attack and 23 days to recover from a ransomware attack. 71.1 million people fall victim to cyber-crimes yearly. Individuals lose \$4,476 USD on average. Individuals lose \$318 billion to cybercrime. Individuals of phishing scams lost \$225 on average. The top 5 cyber crimes in 2021 were: Extortion, Identity theft, Personal data breach, Non-payment and Phishing attacks. Access to Someone's entire online identity is worth roughly \$1,000. PII goes for roughly \$200 per record. \$50 gets you malware + tutorial on how to use it. A \$34 monthly investment could net a criminal \$25,000 a month.

## **CYBERCRIMES AND SOCIOECONOMIC COSTS: YEAR WISE REPORT**

- 2022 – The ZLoader botnet responsible for distributing the ZLoader malware was taken down in a joint effort with Microsoft, ESET, Black Lotus Labs, Palo Alto Networks, HealthISAC, and Financial Services-ISAC.
- 2022 – On May 8th, 2022 the a national emergency was declared due to an ongoing Conti ransomware attack against several Costa Rican government entities.
- 2021 – Kaseya suffered a ransomware attack compromising up to 1500 companies with a staggering ransom note of \$70 million.

- 2021 – Saudi Aramco experienced a data breach exposing sensitive data on employees and technical specifications of the organization. Threat group ZeroX is demanding a payment of \$50 million.
- 2021 – The Accellion file transfer application (FTA) data breach impacted over 100 companies, organizations, universities, and government agencies around the world.
- 2021 – The Pulse Secure VPN zero-day was exploited resulting in the breach of several undisclosed defense firms and government organizations in the United States and Europe.
- 2021 – Solarwinds fell victim to a nation-state supply chain attack impacting government agencies and fortune 500 companies.
- 2020 – Spartanburg County School District was the victim of a ransomware attack on February 26th. As a result, internet connectivity and network access was shut off for three days. Although no data was compromised, the district did lose all online access.
- 2020 – Tillamook County commissioners negotiate for an encryption key to regain control of the government’s computer systems after falling victim to a ransomware attack.
- 2020 – Universal Health Services reports an information technology security incident. Malware, specifically the Ryuk ransomware, which targeted 400 hospitals in the US and the UK. UHS has over 90,000 employees who provide healthcare services to roughly 3.5 million patients every year.
- 2020 – Duesseldorf University Hospital is infected with ransomware, resulting in the first death reported following a ransomware attack.
- 2020 – The hotel chain Marriott disclosed a security breach that impacted the data of more than 5.2 million hotel guests who used their company’s loyalty application.
- 2020 – MGM Resorts suffered a massive data breach resulting in the leak of 142 million personal details of hotel guests.
- 2020 – 500,000 stolen Zoom passwords available for sale in dark web crime forums.
- 2020 – Magellan Health was struck by a ransomware attack and data breach stating that 365,000 patients were affected in the sophisticated cyberattack.
- 2020 – Twitter breach well-coordinated scam made attackers swindle \$121,000 in Bitcoin through nearly 300 transactions.

## ADVANCED PERSISTENT THREAT (APT) STATISTICS: FUTURE COSTS

The global advanced persistent threat (APT) protection market size was over \$4.3 billion in 2019 and is projected to reach \$20 billion by 2027. By 2025 the advanced persistent threat protection market will be worth an estimated \$12.5 billion annually. The advanced persistent threat (APT) protection market size is expected to register a CAGR of 18.2% during the forecast period and reach the market size of \$9.6 billion in 2026. The professional services for the advanced persistent threat (APT) protection market shall have notable growth and is projected to register a revenue of \$9,387.7 million by 2027, surging from \$1,619.5 million in 2019. The cloud sub-segment of the global advanced persistent threat (APT) protection market will have the fastest growth and it is projected to surpass \$12,184.5 million by 2027, with an increase from \$1,957.6 million in 2019.

The managed services for advanced persistent threat (APT) protection market will have a significant share in the global industry and is further projected to generate a revenue of \$10,905.3 million,

The NGFW software for the advanced persistent threat (APT) protection market will be a rapidly growing segment and is further projected to register a revenue of \$3,938.2 million by 2027, Security Information and Event Management (SIEM) shall have a dominating market share in the global market and is expected to generate a revenue of \$3,811.7 million, during the analysis timeframe. The BFSI sub-segment for advanced persistent threat (APT) protection is in extensive demand and is further expected to register a noteworthy revenue of \$2,624.3 million by 2027. The government and defense sub-segment for the advanced persistent threat (APT) protection market will have a dominating share in 2020 and is expected to generate a revenue of \$2,631.1 million by 2027, with a CAGR of 19.3%, The Asia-Pacific advanced persistent threat (APT) protection market accounted \$1,093.0 million in 2019 and is expected to generate a revenue of \$5,275.6 million by 2027.

North America advanced persistent threat (APT) protection market will have dominating market share and is anticipated to grow at a CAGR of 20.3% by generating revenue of \$6,641.1 million by 2027. Attacks conducted by APTs on EU institutions, bodies, and agencies increased by 30% in 2021. 21% of organizations report having an incident affecting suppliers that they share data with. 22% lose access to customer-facing services as a result of a targeted attack. 34% of companies

experienced damage to their reputation as a result of an APT attack. 68% of companies experienced a targeted attack on their networks and suffered data loss as a direct result. 78% of companies experience downtime as a result of an APT attack. 90% of APT groups use spear phishing as an effective way to penetrate a company's internal network. 48% of APT groups use legitimate administration tools and commercial penetration testing tools. The cost of the tools needed for a banking attack would start at \$55,000. Over 6.74 Lakh cybersecurity incidents were reported in the country in 2022 till June, Minister of State for Electronics and Information Technology Rajeev Chandrasekhar informed the Parliament. "CERT-In (Indian Computer Emergency Response Team) has reported that a total number of 14,02,809 and 6,74,021 cybersecurity incidents are observed during the year 2021 & 2022 (up to June) respectively,".

### **RECENT CYBER SECURITY INCIDENTS IN INDIA**

Besides these spikes in the cyber attacks and crimes, there have been a plethora of disastrous cyber attacks on organizations all through India. In May 2020, Edutech startup Unacademy suffered a data breach that resulted in the compromise of the accounts of 22 million Indian users. The email addresses, usernames and passwords of the compromised accounts were put up for sale on the dark web. In October 2020, the user data from the giant online grocery platform called BigBasket went up for sale in an online cyber crime market. The personal information of around 20 million Indian users was being sold for \$40,000. The information on sale included names, email IDs, PINs, mobile numbers, password hashes, addresses, locations, dates of birth and IP addresses. In January 2021, COVID-19 lab test results of thousands of Indian patients were leaked online seemingly by government websites. The leaked data was made publicly accessible on Google. The sensitive information included patients' dates of birth, full names, centers in which the tests were held and testing dates. In February 2021, personally identifiable information (PII) of 500,000 Indian police personnel went up for sale on a database sharing forum. The data was traced back to a police exam conducted on 22 December 2019. The leaked information included full names, email IDs, mobile numbers, dates of birth, criminal history and FIR records of the exam candidates.

India's second-largest stockbroker, Upstox, suffered a data breach in April 2021 that affected its 2.5 million customers. Over 56 million KYC data files were leaked including email IDs, date of birth, passports, PAN, etc. The infamous hacker group ShinyHunters gained access to the KYC details and contact data by compromising a third-party warehouse. In November 2020, the data of

1.4 million Indian job seekers was leaked online after a cyber attack on the job portal IIMjobs. The compromised data included the victims' names, email addresses, phone numbers, the exact location of users, links to their LinkedIn profiles and their industry of work. These incidents clearly indicate the growing need for organizations in India to enforce strict cyber security protocols and follow the best cyber security practices. Only with the coordinated efforts of the public and the private sectors can we hope to stabilize the increasingly deteriorating condition of India's cyber security landscape.

### **CYBER SECURITY STATS RELATED TO COSTS AND SPENDING**

According to a report by multinational professional services company Accenture, a cyber-attack in the form of malware can cost an organization 2.6 million dollars. An IBM study shows that among all industries, data breach costs in the healthcare sector are the highest at 7.13 million dollars. In its research, professional services network Deloitte found that the average spending on security increased from 2,337 dollars per employee in 2019 to 2,691 dollars in 2020. The amount of business lost because of cyber-attacks averaged 1.52 million dollars, a report by IBM states. Information loss is the most costly component of cyber-attacks at about 5.9 million dollars, according to Accenture's "Ninth Annual Cost of Cybercrime Study." Data breach incidents cost the U.S. 8.64 million dollars, the highest globally, followed by the Middle East at 6.52 million dollars, as per the "2020 Cost of a Data Breach Report" published by IBM. The Cisco Cybersecurity Reports show that 50 percent of large organizations, with a workforce of more than 10,000, spend at least \$1 million on security every year. The report also found that 43 percent spend between \$250,000 and \$999,999, while 7 percent spend less than \$250,000.

According to a research by the Cybercrime Magazine, the cost of cybercrime will reach 6 trillion dollars worldwide by 2021, and the cost of ransomware damages will rise to 20 billion dollars. After looking into the cyber security stats, let look at some cyber security facts. Enterprise-Related Cyber Security Facts. In October 2020, researchers at a California-based security firm, Zscaler, identified 17 apps infected with the Joker malware, prompting Google to remove those apps from its Play Store. Researchers said the malware was programmed to steal user data. Another study suggests that entertainment (7 percent) and lifestyle (15 percent) make up the most common categories of malicious apps. The rate at which smaller companies with 1 to 250 employees are affected by malicious emails is 1 in 323, according to the Symantec threat report.

Nearly 25 percent of ransomware attacks target manufacturing companies, followed by professional services and government organizations with 17 percent and 13 percent of attacks, award-winning threat analysis firm SecurityIntelligence claims in its research: Ransomware 2020: Attack Trends Affecting Organizations Worldwide.

### **CYBER SECURITY STATISTICS IN 2023**

We are living in what can be called the “golden age” for hackers and cybercriminals. Shocking, but true. The ever-growing number of public IP addresses and access points, a dramatic increase in the volume of Internet traffic, and the massive amounts of data that the world generates today, combine to create a highly favorable environment for cybercriminals to exploit vulnerabilities. In addition, today's cybercriminals operate in groups, and often function as tech startups, recruiting elite programmers to develop innovative cyber-attacks. As hackers become smarter and more inventive, new and advanced methods of cyber-attacks are emerging on a daily basis. 2020 was a year hit by unprecedented cyber-crimes, with a high number of data breaches, ransomware attacks, and even sophisticated state-sponsored cyber-attacks. During the first half of the year, the multinational hotel chain Marriott International reported that hackers accessed 5.2 million records, involving the personal data of guests, through employee login credentials at one of their franchise properties. Before the shockwave of this cyber-attack receded, a large-scale cryptocurrency scam, in the middle of the year, rocked the entire spectrum of the global business landscape. This time, the target was Twitter — the world’s most-popular microblogging platform. The coordinated cyber-attack hacked the accounts of prominent public personalities, including Jeff Bezos, Bill Gates, Elon Musk, Barack Obama, and Joe Biden.

In August and September, the New Zealand Stock Exchange was subject to a slew of cyber-attacks, which forced the stock exchange to halt trading several times. Around the same time, London-based multinational low-cost carrier, EasyJet, revealed that a high-tech cyberattack led to a data spill, affecting around 9 million customers. To top it all, the Wall Street Journal reported that hackers had installed malware into IT company SolarWinds' Orion software and accessed critical data of blue-chip companies, hospitals, universities, and U.S. government agencies. According to the report, at least twenty-four major organizations, including Nvidia, VMware, Cisco, and Intel, fell victim to the malware embedded into the Orion software. In the second half of 2020, when the world was struggling to deal with the coronavirus pandemic, cybercriminals did not even spare Covid-19 vaccine research institutions, targeting seven high-profile establishments from around

the world, including one in India. To keep you up-to-date on cybersecurity trends in 2023, Master in cyber security in India the following document lists some lesser-known cyber security facts and cyber security stats that will inspire you to upskill your cybersecurity workforce to enable solid protection against evolving cyber threats.

### **CYBER SECURITY COSTS AND SPENDING BY THE CORPORATES**

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### **ENTERPRISE-RELATED CYBER SECURITY FACTS**

In October 2020, researchers at a California-based security firm, Zscaler, identified 17 apps infected with the Joker malware, prompting Google to remove those apps from its Play Store. Researchers said the malware was programmed to steal user data. Another study suggests that entertainment (7 percent) and lifestyle (15 percent) make up the most common categories of malicious apps. The rate at which smaller companies with 1 to 250 employees are affected by malicious emails is 1 in 323, according to the Symantec threat report. Nearly 25 percent of ransomware attacks target manufacturing companies, followed by professional services and government organizations with 17 percent and 13 percent of attacks, award-winning threat analysis firm SecurityIntelligence claims in its research: Ransomware 2020: Attack Trends Affecting Organizations Worldwide. The global research and advisory firm Gartner, Inc. forecasts that the

worldwide cybersecurity market will reach 170.4 billion dollars by 2022. 95 percent of security breaches happen because of human errors.

In 2019, 88 percent of businesses worldwide experienced phishing attempts. Global cybersecurity threats are on the rise, nearly 68 percent of business leaders agree. Verizon's 2020 Data Breach Investigations Report found that 86 percent of the data breaches were motivated by financial reasons, while 10 percent were cyber espionage. In 2020, 17 percent of breaches involved malware, 22 percent featured phishing attacks, and 45 percent were hacking. 37 percent of malicious email attachments were .dot and .doc, followed by .exe with 19.5 percent, according to the Internet Security Threat Report. IBM's Cost of a Data Breach Report 2020 found that organizations took 207 days to detect a security breach. Over 80 percent of the reported cybersecurity threats were phishing attacks. On average, the cost associated with a ransomware threat is \$133,000.

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# LEARNING AND DEVELOPMENT OF EMPLOYEES AT MANUFACTURING UNITS AND ITS IMPACT ON ORGANIZATIONAL PERFORMANCE: A STUDY

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## 1.0 INTRODUCTION

Learning is the relatively permanent change in a person's knowledge or behavior due to experience. This definition has three components: 1) the duration of the change is long-term rather than short-term; 2) the locus of the change is the content and structure of knowledge in memory or the behavior of the learner; 3) the cause of the change is the learner's experience in the environment rather than fatigue, motivation, drugs, physical condition or physiologic intervention. Hence, Learning involves adding new information to one's memory. Learning involves making sense of the presented material by attending to relevant information, mentally reorganizing it, and connecting it with what an individual is already know. Learning helps to improve the skill and performance at work and there by individual growth and organizational development can be improved over a period of time.

## 1.1 CONTINUOUS LEARNING

. In the words of Arie de Geus, a business theorist, "The ability to learn faster than your competitors may be the only sustainable competitive advantage to new age business firms and helps to reach the goals within the time frame. Creating continuous learning culture among the organizations is key factor in the success and development of an organization. The basic steps in creating continuous learning culture are organization is open to the growth ( top management attitude towards the change), setting the learning goals and collecting feedback from the stake holders on the progress and process of learning and its methods in the initial stages. Later creating open book houses, arranging field trips to various related places can further help in improving the application and experimental knowledge about the new learning.

## 1.2 MODERN FACTORS INFLUENCING THE LEARNING AND DEVELOPMENT IN ORGANIZATIONS

**Digitization:** “The exponential growth of digital connectivity, devices and information is driving profound changes in the way we work, all around the entire world. But in a business this involves far more than converting paper-based or off-line processes into online processes. And in workplace learning terms it involves far more than converting classroom training into e-learning. The training and development and promoting skills may be through online workshops using virtual reality and augmented reality and proto model development techniques. This will have a lot of impact on technology firms and manufacturing firms like auto components manufacturing industry.

**CHANGING LEARNING HABITS:** It is increasingly clear that learning habits are changing. Individuals no longer rely on being trained as the only way to learn for work, many appreciate they learn as they do their work as well through their interactions with colleagues, clients, their manager and maybe even a coach. They also make significant use of the Web – not just to access online courses, but also a variety of resources like video as well as to build their professional networks of connections from around the world on social networks.

**MULTI-GENERATIONAL WORKFORCE:** Today organizations have a multi-generational workplace – four generations in the workplace for the first time. Much has been written about the different attitudes to work and learning of each of these generations, in particular their exposure and use of new technologies.

**EXPONENTIAL INFORMATION GROWTH:** In an era of exponential information growth, a huge amount of data is being created every day. But what is more, the half life of a piece of knowledge today is just around 3-5 years. In other words, knowledge is decaying and skills are quickly going out of date. Today, as job roles became more sophisticated or new technology or procedures were introduced, training became a full-time operation just to keep people knowledgeable, skilled and up to date. There is a need for finite amount learning and development for all the employees.

**THE EMERGING GIG ECONOMY:** The emerging Gig Economy means that there is no longer such a thing a job for life. in fact, for most individuals this means they are going to have a life of

jobs. One estimate is that current students will have more than 10 jobs by the time they are 38. Companies are also going to be seeing a growing contingent workforce (made up of freelancers, independent professionals and temporary contract workers). Research from Ernst and Young shows that two in five organisations expect to increase their use of the contingent workforce by 2020.

## 2.0 STATEMENT OF THE PROBLEM

The emphasis on individual improvement that links to an organization's strategic direction contributes to an understanding of workplace learning as a means for managing the relationships between organizational and individual capabilities (Solomon 2001). The intent is for learning to become increasingly integrated into everyday work practices, and for work itself to become a rich source of learning (Collin 2002). Diverse work environments, including organizational culture, policies, work practices, and other HR systems, are likely to influence the learning of individuals, groups, and the organization (Clarke 2005). At the same time, workplace learning has played a critical role in developing knowledge and skills that are important for operating effectively in organizations where learning would happen reflexively in practice and from experience. Poell, Chivers, Van Der Krogt, and Wildemeersch (2000) stated that current issues in work-related learning include the increasing importance of learning for organizations, change in work organizations calling for learning, and multiple ways of learning.

However, there is a need to reexamine current perspectives on workplace learning in terms of the function of learning at work and the dynamics of the workplace (Poell et al. 2000). Auto component manufacturing sector is a cut edged competitive sector along with rapid changing technology and processes across the globe and especially in the developing countries like India. The changing technology towards eco friendly products design and development, economy pricing, performance in terms of fuel efficiency and safety, innovation and creativity at work to change the processes, methods and models in day to day operations at shop floor level becomes mandatory. Hence, the current study is focused in assessing the effects of continuous learning of shop floor level executives on the organizational development in the auto component manufacturing sector. In addition, Chennai is considered as largest auto hub in the country with lot of competitive advantage and huge potential to capture both domestic and export opportunities. By considering all these factors, the research gap in the literature and the latest changes happening in the automobile component manufacturing units in Indian scenario and specific to Chennai, the

present work is considered as need of the hour and taken up to the study. The current research is titled as “Factors of Continuous Learning and its Role in Organizational Development: A Study.

### **OBJECTIVES OF THE STUDY**

1. To study the profile of the employees working in auto ancillary industry in the sample area.
2. To find out the factors influencing continuous learning among the shop floor employees in auto ancillary units in the sample.

### **3. RESEARCH METHODOLOGY**

The present study is perception and qualitative in nature. The study is descriptive and exploratory due to the nature of the industry. Inject moulding plastic components manufacturing is a highly technology oriented and skill dependent industry. The final survey was started by distributing 2130 Questionnaires to the employees working in 71 companies by considering equal importance to all the units. There is a resistance from the employees in the auto ancillary companies to share any information about continuous learning and its out comes, with the fear that the data is collected to supply to the management and tax them. The myth of employees on the surveys was observed during the survey. The primary reason behind the adoption of a convenient sampling technique is time and co-operation from the sample respondents to get the real and reliable and free consent of the respondent. In addition, employees working in auto components manufacturing companies are travelling from far of places and tightly scheduled with production process. On completion of the survey and collection of 847 datasheets, it is found that, 247 questionnaires in total found unreliable due to errors of omission and dual entries, and 600 samples are found suitable for the study. Data analysis is carried out with the same. The data and information collected from respondents pertain to the period of July 2018 to August 2019 and few are related to early months of 2020 before the COVID-19 lockdown in India.

### **SOURCES OF DATA**

For the purpose of study, data required is collected from both primary and secondary sources. The primary data is collected via a structured questionnaire prepared and tested through pilot study.

### **4.0 DATA ANALYSIS AND DISCUSSION**

**Table 1: sample set opus of discernment s on the Prime factor influencing continuous**

**learning**

Prime factor affecting learning	Response count	Percent
Readiness to learn	265	44.2
Learning stimuli	251	41.8
Diagnosis and interventions	84	14.0
Totality	600	100

Source of table information: Data collection instrument of questionnaire

The prime factor influencing continuous learning practices of auto ancillary industries in the sample set observed from the data analytics from the table 4.2.10 are 44.2 percent signified as readiness to learn as a factor, 41.8 percent of the respondents perceived as learning stimuli factor, 14 percent signified as diagnosis and interventions of the management as a factor for continuous learning in auto ancillary sector and among the sample set units in the study. Readiness to learn factor consists of boundary permeability, Meta systems, perspective, and development maturity as internal components of learning. Hence, human resource work force ready to learn from time to time to have job security and career escalation in future. Meta systems signify the nature of the company environment and policy aspects of the Commercial production set ups and employment. Perspective and development aspects indicates that escalation and development in the existing position and the escalation opportunities in the career. Hence, continuous learning is an inherent method of learning in auto ancillary sector.

**Table 2 : Level of concurrence on the Readiness to Learn Dimension of factors of Continuous learning among the auto ancillary units in Chennai**

Readiness to learn dimension of learning	Mean	SD
<b>Boundary Permeability</b>		
Do you believe that learning is necessary?	3.18	1.254
Do you think that learning is good for your reputation	3.18	1.254
Do you think learning will keep you up to date?	3.29	1.256
Do you think learning is a good idea	3.05	1.409
Does your organization drive you to learn?	3.28	1.422
<b>Meta Systems</b>		
Have the materials required learning in your work environment?	3.12	1.352

Do you think technology to drive employee-centric learning is required?	<b>3.31</b>	1.182
Are you interested in e-learning?	3.19	1.237
Does your organization have an e-learning platform?	<b>3.31</b>	1.247
Use e-learning are getting better education than those who do not?	3.07	1.401
<b>Perspective</b>		
Do you think learning is necessary	3.27	1.422
Do you believe that learning would improve your performance	3.14	1.344
Do you think learning will improve your career	<b>3.34</b>	1.175
Do you believe that learning helps in your everyday work?	3.18	1.246
Are you able to convince yourself on the value of the learning	<b>3.30</b>	1.248
<b>Developmental maturity</b>		
Do you believe that you can solve problems you encounter if you attempt to learn something?	<b>3.29</b>	1.418
Do your friends encourage you to learn?	3.12	1.348
Is your family supporting you in your learning	<b>3.33</b>	1.183
Do you get bored during your training	3.17	1.243
Are you aware of the learning tools?	3.18	1.251

Source: Primary data/Questionnaire.

**BOUNDARY PERMEABILITY:** under this variable, it is observed from the data analytics that, the workmen from auto ancillary components manufacturing units inherent attitude and discernment s towards continuous learning and its importance is observed from the data analytics with the arithmetic mean scores and found that, learning keep update the knowledge and skills along with the latest trends in the Commercial production set ups and to enhance the skill set required with the signify score of 3.29 and standard deviation value observed from the data analytics is 1.256 as upbeat note; Hence, Boundary Permeability variable in the readiness to learn factor is upbeat and proactive from human resource work force towards continuous learning and hence, the organizational development prospects can definite happen through continuous learning with the co-operation of the employees.

**META SYSTEMS:** Meta systems are seen as an organizational initiative towards continuous learning of human resource work force and there by improved level of performance and

organizational development prospects in auto ancillary units in the sample. the human resource work force responses towards the meta systems existence in the organization is viewed as auto ancillary units are having learning platforms with the arithmetic mean score statistic of 3.31 and standard deviation value observed from the data analytics is 1.247; Hence, Meta systems existence as a variable in the readiness to learn variable may have upbeat influence on the workmen from auto ancillary components manufacturing units to learn and there by contributes to the organizational development prospects among the auto ancillary units in the sample.

**PERSPECTIVE:** In this dimension of variable in the readiness to learn factor is loaded with the discernment s of learning will improve your career with the arithmetic mean score statistic of 3.34 and standard deviation value observed from the data analytics is 1.175; convinced behaviour of workmen from auto ancillary components manufacturing units on the value of the learning with the arithmetic mean score statistic of 3.30 and SD of 1.248; Hence, this upbeat and motivational aspects of human resource work force definitely gives a positive support in readiness to learn factor of continuous learning and there by organizational development.

**DEVELOPMENTAL MATURITY:** in this dimension of readiness to learn factor is loaded with the variables of family support in learning with the arithmetic mean score statistic of 3.33 and standard deviation value observed from the data analytics is 1.183; Personal belief that you can solve problems you encounter if you attempt to learn something with the arithmetic mean score statistic of 3.29 and standard deviation value observed from the data analytics is 1.148; Hence, the variables used in the readiness to learn factor are covered employee awareness towards the importance of learning, personal behaviour and attitude towards learning, organization systems development for learning, peer and family support towards continuous learning in auto ancillary sector. The variables taken for the study as dimensions of readiness to learn factor is found positive and proactive and hence, readiness to learn factor has an influence in the continuous learning and organizational development prospects in a positive manner.

**TABLE 3: LEVEL OF CONCURRENCE ON THE LEARNING STIMULI AS A FACTOR IN LEARNING**

Factors of learning stimuli	Mean	SD
<b>External forces</b>		
Does your work require continuous learning?	3.07	1.408
Does your manager encourage you in your learning	<b>3.28</b>	1.422
Are you expected to learn beyond your office hours?	3.14	1.340
Do you have difficulty in learning?	<b>3.34</b>	1.181
Do you believe the organization is fully equipped to support continuous learning?	2.49	1.413
Do you believe continuous learning is important due to competitive job market	3.18	1.249
<b>Internal forces</b>		
Do you find value in continuous learning?	3.17	1.235
Do you get time for learning	3.34	1.234
Are you ready to spend extra hours to learn?	3.07	1.381
Do you believe in traditional work culture?	3.24	1.425
Do you have an interest to learn?	3.17	1.332
Do you think it is necessary to learn the new technology?	3.31	1.202
Do you believe continuous learning supports for internal promotion?	3.20	1.233
<b>Motivation</b>		
Do you feel motivated to learn?	3.34	1.215
Do you expect any monetary benefits once you learn and apply it in your work?	3.12	1.376
Does your learning give you satisfaction?	3.28	1.426
Does your colleagues help you in your learning	3.14	1.342
Does your family encourage you to learn	3.37	1.181
Do you believe that learning is required for sustenance In work?	3.18	1.239
Are you pleased with career development opportunities in HR policy	3.33	1.217
Are you satisfied with the job-related training?	3.07	1.387

Source of table information: Date collection instrument of questionnaire

**EXTERNAL FORCES:** the external forces influencing the continuous learning are identified as

difficulty in learning with the arithmetic mean score statistic of **3.34** and standard deviation value observed from the data analytics is 1.181; Encouragement from manager to learn with the arithmetic mean score statistic of **3.28** and standard deviation value observed from the data analytics is 1.422; in the order of priority indicate the role of external forces in learning stimuli of the human resource work force in the auto ancillary sector.

**INTERNAL FORCES:** The items loaded in the internal forces variable of the learning stimuli factor is presented as Availability of time for learning with the arithmetic mean score statistic of 3.34 and standard deviation value observed from the data analytics is 1.234; ready to spend extra hours to learn with the arithmetic mean score statistic of 3.07 and standard deviation value observed from the data analytics is 1.381 in the order of priority in the array of precedence.

**MOTIVATION:** The items loaded in the motivation variable of the learning stimuli factor is presented as family encouragement to learn with the arithmetic mean score statistic of 3.37 and standard deviation value observed from the data analytics is 1.181; Personally feel motivated to learn with the arithmetic mean score statistic of 3.34 and standard deviation value observed from the data analytics is 1.215; pleased with career development opportunities in HR policy with the arithmetic mean score statistic of 3.33 and standard deviation value observed from the data analytics is 1.217; learning gives me satisfaction with the arithmetic mean score statistic of 3.28 and standard deviation value observed from the data analytics is 1.426; in the array of precedence indicates the good level of personal and external motivation to the continuous learning among the workmen from auto ancillary components manufacturing units in auto ancillary sector.

**Table 4: Level of concurrence on the Diagnosis and intervention factors of learning**

<b>Diagnosis and interventions</b>	<b>Mean</b>	<b>SD</b>
Support dimension: Does your manager support your learning?	3.37	1.177
your organization have the knowledge base to learn from experiences	3.27	1.253
Does your organization encourage continuous learning?	3.25	1.425
Does your organization conduct in-house training?	3.22	1.421
Does your organization provide you monetary support to learn?	3.14	1.330
Do you get the support of family and friends for further learning?	3.12	1.365
Do you have computer knowledge to undergo training?	2.99	1.318

<b>Resources for learning:</b> Have you attended trainings outside	3.29	1.231
Does your organization encourage external training?	3.29	1.220
I feel so as to e-learning is equivalent quality to classroom education	3.22	1.414
Is the environment safe to take training required for the job?	3.22	1.229
Does your organization provide on-the-job training?	3.15	1.359
Does your organization revise the Learning and Development Policies to suit the latest technology?	3.14	1.373

Source of table information: Data collection instrument of questionnaire

**SUPPORT:** The items loaded in the motivation variable of the diagnosis and intervention factor are illustrious as Support from manager for learning and development is abundant with the arithmetic mean score statistic of 3.37 and standard deviation value observed from the data analytics is 1.177; Many Human resource work force have computer knowledge to undergo training with the arithmetic mean score statistic of 2.99 and standard deviation value observed from the data analytics is 1.318 correspondingly.

**RESOURCES FOR LEARNING:** The items loaded in the motivation variable of the diagnosis and intervention factor are illustrious as attended trainings outside of the organization with the arithmetic mean score statistic of 3.29 and standard deviation value observed from the data analytics is 1.231; organization revise the Learning and Development Policies to suit the latest technology from time to time with the arithmetic mean score statistic of 3.14 and standard deviation value observed from the data analytics is 1.373 in that order.

**Table 4.2.14: Level of concurrence on the learning process factors of continuous learning in auto ancillary manufacturing/ assembling units**

Factors of learning process	Mean	SD
<b>Adaptive</b>		
Are you able to work with ease of the latest technology after your training?	3.20	1.243
Are you able to differentiate among your earlier knowledge and knowledge after training?	<b>3.28</b>	<b>1.239</b>
Are you able to take up additional challenges because of your knowledge gained from training?	3.15	1.354

Do you believe that your newly acquired skill helps to understand the work better?	3.22	1.415
Do you think your training has provided you enough knowledge to work better?	3.15	1.365
<b>Generative</b>		
Did you gain the knowledge/skill required?	<b>3.29</b>	<b>1.223</b>
Are you able to perform better than before?	3.22	1.243
Does the training enable you to lead others?	<b>3.27</b>	<b>1.246</b>
Do you feel you have learnt what is required to work on the latest technology?	3.13	1.364
Does your manager acknowledge your knowledge after your training?	<b>3.20</b>	<b>1.425</b>
<b>Transformative</b>		
Are you able to apply what you learnt in your work?	<b>3.31</b>	<b>1.214</b>
Will the training help you in your career growth?	<b>3.15</b>	1.360
Rate the practicality of the training received	3.19	1.247
Do you think your productivity has increased in your work?	<b>3.30</b>	<b>1.225</b>
This training was different from what I thought the content of the training would be	<b>3.06</b>	<b>1.397</b>
Do you believe that the training has improved your creativity	3.24	1.427

Source of table information: Data collection instrument of questionnaire

**ADAPTIVE:** The items loaded in the adaptive variable of the learning process factor are illustrious as able to work with ease of the latest technology after your training with the arithmetic mean score statistic of 3.20 and standard deviation value observed from the data analytics is 1.243 able to differentiate among earlier knowledge and knowledge after training with the arithmetic mean score statistic of **3.28** and standard deviation value observed from the data analytics is **1.239** and standard deviation value observed from the data analytics is 1.365 as corresponding value .

**GENERATIVE :** The items loaded in the generative variable of the learning process factor are illustrious as gain the knowledge/skill required with the arithmetic mean score statistic of 3.29 and standard deviation value observed from the data analytics is 1.223; able to perform better than before with the arithmetic mean score statistic of 3.22 and standard deviation value observed from the data analytics is 1.243; training enable human resource work force to lead others with the

arithmetic mean score statistic of 3.27 and standard deviation value observed from the data analytics is 1.246;

**TRANSFORMATIVE:** The items loaded in the transformative variable of the learning process factor are illustrious as able to apply what you learnt in your work with the arithmetic mean score statistic of 3.31 and standard deviation value observed from the data analytics is 1.214; training helps in career escalation with the arithmetic mean score statistic of 3.15 and standard deviation value observed from the data analytics is 1.360; Rate the; practicality of the training received with the arithmetic mean score statistic of 3.19 and standard deviation value observed from the data analytics is 1.247;

**Table 5: Level of concurrence on the learning outcomes of continuous learning towards organizational development**

<b>Continuous learning outcomes towards organizational development</b>	Mean	SD
Do you think your productivity has increased in your work?	3.26	1.427
Rate the practicality of the training received	<b>3.34</b>	<b>1.189</b>
Do you think training has increased the level of skills required to perform your job?	3.18	1.242
How do you feel the contribution of T&D for effective?	<b>3.32</b>	<b>1.231</b>
Adopt a learning architecture that supports an expanded vision for development?	3.07	1.393

Source of table information: Data collection instrument of questionnaire

Continuous learning outcomes towards organizational development prospects are illustrious as augment in productivity at work with the arithmetic mean score statistic of 3.26; practicality of the training established is high with the arithmetic mean score statistic of 3.34; Effective contribution of training and development with the arithmetic mean score statistic of 3.32; training has increased the level of skills necessary to perform your job with the arithmetic mean score statistic of 3.18; and Adopt a learning architecture that supports an expanded vision for development with the arithmetic mean score statistic of 3.07 in that order.

## SUMMARY AND CONCLUSION

To sum up, the learning is a process, which helps the employees to learn new skills and changes in the technology to cope at work. Continuous learning helps to grow in career at individual level and business can attain sustainability and continuity in the long run. For businesses, employees are the key resources along with technology. Both need constant up gradation and learning simultaneously. Hence continuous learning is mandatory at work place for growth and development. Hence, continuous learning has close relationship, association and direct impact on the organizational development in terms of productivity of the employees, quality of products, and optimization of resources and there by good return on investment to the investors and delighted level of satisfaction to all the stake holders at large.

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## WHAT BRANDS PLAY A ROLE IN MAKING THE CUSTOMER DELIGHT IN THE APPERAL MARKETS DURING POST COVID-19: AN INFERENTIAL ANALYSIS

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### ABSTRACT

Customer behaviour and satisfaction towards private label brand apparels in organised retails malls is identified as a research topic. The objective of the study is To analyze the role of awareness, perceptions, behaviour, motivation, and satisfaction towards Private Label brand apparels (PLBs) in the sample. For the purpose sample survey, the sample respondents are identified with potential buying capacity and visiting the malls with an intention to buy textile goods for different occasions. For the purpose of sample survey, the Chennai city is chosen. The sample size is fixed at 562 by observing simple stratified sample technique. The results of the study indicate that, the promotional activities of PLBs should focus women to create the awareness and to attain the positive perception towards PLBs. The role of promotional media and in store communication of sales personnel with the customer' needs to be strengthened by the PLBs.

**KEY WORDS:** fashion-retail malls-Trends- textile products-customer delight.

### INTRODUCTION

Customer behaviour is a complex phenomenon to understand in the general perspective. The behaviour is a functional set of individual's learning, observation and understanding ability of the markets. The role of marketing communications is very high in influencing the individual behaviour towards purchasing of apparels at different points of time. The liberalized markets with organised malls have increased the scope to new brands entry. Private label brands are one such category promoted by large corporate as a diversified business from the existing ones. The entry into the apparels may be due to wide scope for growth and development in terms of revenue and

expansion of a brand to foreign markets. Today, the corporate are looking brand as an invisible asset with lot of commercial value to sell and generate revenue and capital appreciation. Hence, private label brands have flourished into the markets. The retail malls has added support to private label brands by providing low cost establishment options to put up stalls and exhibit the apparels without much of a difficulty.

### **NEED FOR THE STUDY**

Private label grew 27% between 2015 and September 2021. Factors that drive this growth are the new generation of consumers who are not loyal to the individual brands and more open to endeavoring new products. With consumers looking to trim their shopping bills and find more value for money, private label caters to a segment that wants to participate in the modern trade experience. Private label is liable to perpetuate situating itself as a natural alternative to designate brand products. Private label brands can create competitive advantage for retailers as they can be found in specific stores only, increase store switching barriers, strengthen store's image and offer value for money by that way adding customer loyalty.

### **STATEMENT OF THE PROBLEM**

Customer behaviour and satisfaction towards private label brand apparels in organised retails malls is identified as a research topic. The customer behaviour is depending on personal and psychological factors of an individual. hence, the initially the role of personal factors and shopping patterns on the purchase intention of individual customers is fixed as a first frame of research construct to explain the role of individual demographics and shopping patterns on the purchase intention towards private label brand apparels in the malls. Similarly, the role of awareness, perception, behaviour, motivation and attitude as independent variables in purchase intention is fixed for the study. With this basic the mediating variables in the process of purchase are brought into model as mediating variables namely, purchase intention and purchase decision making. Customer satisfaction towards private label brands is fixed as a dependent variable. Hence, the complete purchase model is fixed with independent, mediating and dependent variables. The purchase process steps involved in the individual buying is the basis for the model. The cyclical repurchase decision is set aside for the future research. Because, this can happen only in future and the certainty of repurchase decision is not sure.

### **IMPORTANCE AND SALIENT FEATURES OF THE STUDY**

This study is significant for five reasons, the first of which is the current void in literature. There exist many reasons for private label branded apparels, but few discuss the industrial ramifications in terms of customer loyalty, brand equity, distribution channel and cost management. This study examines these potential consequences through large sample size survey of direct customers in malls. Second, past research has been focused on the implementation and consequences of private label food programs, but do not consider the effects on the apparel industry. The study is also important to the textile and apparel industry as the study will document the way in which top ten private label brand function and the outcomes for all complex members; ultimately allowing them to select the best strategy for their business.

### **OBJECTIVE OF THE STUDY:**

1. To analyze the role of awareness, perceptions, behaviour, motivation, and satisfaction towards Private Label brand apparels (PLBs) in the sample.

### **RESEARCH DESIGN AND METHODOLOGY**

The descriptive research design was followed in this research with the aim of finding out the relationship among the variables. Perception, Attitude, Purchase behaviour and Satisfaction towards Private brand Apparels towards are studied in detail. The research methodology is always considered to be the guiding star for testing the hypotheses. These hypotheses are formulated on the basis of a thorough review of the relevant literature. It also enables the present researcher to identify the exogenous (independent) variables. In the above context the present researcher is also able to find out the role of these mediating variables such as purchase intention, decision making and satisfaction towards private label brand apparels in the study. The researcher has distributed 600 questionnaires, and collected 600 completed questionnaires from consumers. After scrutiny, a sum of 38 filled-in-questionnaires was rejected due to incompleteness, errors and inadequate information. Finally, 562 filled questionnaires were used in the present study.

### **2. DATA ANALYSIS UNING t-TEST:**

In this portion, the researcher is trying to interpret the perceptions of the customers visiting malls and their opinion towards the factors influencing the purchase intention, behaviour, decision and level of satisfaction towards private label brand apparels in the sample area. The set of independent variables influencing the purchase intention and its relevance is surveyed among the customers using the structured questionnaire. The perceptual differences between the various

demographical groups with regard to independent variables role in influencing the purchase intention, behaviour, decision and level of satisfaction towards private label brand apparels in the sample area is explained along with statistical significance in the following pages.

**Null Hypothesis-1: H<sub>0</sub>:** There is no significant difference between the perceptions of the male and female with regard to dimensions of customer behaviour and satisfaction towards private label brand apparels among the sample.

**Table 1: t-test results of gender difference with regard to factors influencing customer behaviour and satisfaction towards private label brand apparels**

Independent variables	Gender				T value	P value
	Male		Female			
	Mean	SD	Mean	SD		
Awareness	<b>39.61</b>	6.88	37.23	9.19	3.493	0.001**
Perception	<b>51.14</b>	12.81	43.96	16.03	5.849	0.001**
Behavioural	<b>89.07</b>	14.51	88.26	16.25	0.614	0.539 <sub>NS</sub>
Motivation	<b>49.00</b>	10.26	47.53	13.14	1.480	0.139 <sub>NS</sub>
Attitude	<b>52.05</b>	11.92	49.42	12.64	2.469	0.014*
Purchase intention of PLBs	<b>35.10</b>	5.65	34.98	6.20	1.844	0.175 <sub>NS</sub>
Purchase Decision Making of PLBs	<b>34.18</b>	6.93	31.41	8.65	4.177	0.001**
Satisfaction of PLBs	<b>49.28</b>	11.53	48.27	11.93	0.997	0.319 <sub>NS</sub>

Source: Primary data/Questionnaire; \*\*-indicates highly significant at 1% level of significance; \*- represents Significant at 5% level of significance; NS-indicates- not significant at 5% level of significance.

Since p value is less than 0.01, (p value for awareness= 0.001 and p value for perception=0.001) the null hypothesis, There is no significant difference between the perceptions of the male and female with regard to variables influencing awareness, perception, towards private label brand apparels among the sample is rejected at 1% level of significance. Based on the same, it is inferred that, there is a highly significant difference between the perceptions of the male and female with regard to variables influencing awareness, perception, towards private label brand

apparels among the sample. This indicates the strong role of awareness and perception in the purchase decision and satisfaction of private label brands in the sample.

Based on the mean value, it is noted that, male customers are strongly perceived the role of awareness and perception as influencing variables in the purchase and satisfaction of private label brand apparels in the sample. This may be due to wide spread knowledge of the brands and the availability aspects of various brands known to male respondents is high among the male when compared to others in the sample. Hence, private label brands awareness is low among the female respondents in the sample. The promotional activities of PLBs should focus women to create the awareness and to attain the positive perception towards PLBs. The role of promotional media and in store communication of sales personnel with the customer' needs to be strengthened by the PLBs.

Since p value is less than 0.01, the null hypothesis, (p value for decision making=0.001), There is no significant difference between the perceptions of the male and female with regard to variables influencing purchase decision towards private label brand apparels among the sample is rejected at 1% level of significance. Hence, it is inferred that, there is a highly significant difference between the perceptions of the male and female with regard to variables influencing purchase decision towards private label brand apparels among the sample. Based on the mean value, it is noted that, the male customers are strongly endorsed the variables influencing the decision making when compared to female in the sample. This may be due to the broad understanding of the, behaviour and decision making aspects of apparels may be high among the male when compared to female customers in the sample. Whereas female is more focused on product attributes in terms of quality, designs and durability.

**Null Hypothesis-2: H<sub>0</sub>:** There is no significant difference between the perceptions of the married and unmarried with regard to dimensions of customer behaviour and satisfaction towards private label brand apparels.

**Table 2: T-Test results explaining the Perceptions of married and unmarried with regard to customer behaviour and satisfaction Private Label Brand Apparels**

Independent variables	Marital Status				t value	p value
	Married		Unmarried			
	Mean	SD	Mean	SD		
Awareness	<b>39.02</b>	7.99	38.38	7.82	0.953	0.341 <sub>NS</sub>
Perception	<b>48.59</b>	15.12	48.26	13.86	0.264	0.792 <sub>NS</sub>

Behavioural	<b>90.26</b>	15.72	87.12	14.42	2.459	0.014*
Motivation	<b>49.63</b>	11.79	47.14	10.91	2.591	0.010*
Attitude	<b>52.30</b>	12.38	49.69	11.99	2.537	0.011*
Purchase intention of PLBs	<b>35.55</b>	6.00	34.51	5.66	2.534	0.112NS
Purchase Behaviour of PLBs	<b>280.03</b>	52.25	270.43	48.94	2.243	0.025*
Purchase Decision Making of PLBs	<b>33.49</b>	8.03	32.75	7.40	1.121	0.263 <sup>NS</sup>
Satisfaction of PLBs	<b>49.19</b>	11.37	48.58	12.03	0.624	0.533 <sup>NS</sup>

Source: Primary data/Questionnaire; \*\*-indicates highly significant at 1% level of significance;

\*- represents Significant at 5% level of significance; NS-indicates- not significant at 5% level of significance.

Since p value( awareness  $p=0.341$  and perception  $p=0.792$ ) is greater than 0.05, for the hypothesis, There is no significant difference between the perceptions of the married and unmarried customers with regard to variables influencing awareness, perception, towards private label brand apparels among the sample and hence, accepted. Based on the same, it is inferred that, there is no significant difference between the perceptions of the married and unmarried customers with regard to variables influencing awareness, perception, towards private label brand apparels. The variables of awareness and perception are strongly endorsed by the married customers when compared to others in the sample. However the level of perceptual variations with regard to variables is nominal and hence, the factors are appropriate in influencing the awareness and perception of customers towards private label brand apparels.

Since p values for the factors behaviour- $p=0.014$ ; motivation- $p=0.010$  and attitude- $p=0.011$ , are less than the 0.05 , the null hypothesis, there is no significant difference between the perceptions of the married and unmarried customers with regard to variables influencing individual behaviour, motivation, attitude towards private label brand apparels among the sample is rejected at 5% level of significance. Hence, it is inferred that, there is a significant difference between the perceptions of the married and unmarried customers with regard to variables influencing individual behaviour, motivation, attitude towards private label brand apparels among the sample. This indicates the considerable level of influence of behaviour, motivation and attitude on the purchase intention, purchase decision and satisfaction towards private label brand apparels. Since p value is less than 0.05, the null hypothesis,( $p=0.025$ ) There is no significant difference between the perceptions of the married and unmarried customers with regard to variables influencing behaviour towards private label brand apparels among the sample is rejected at 5% level of significance.

Hence, it is inferred that, there is no significant difference between the perceptions of the married and unmarried customers with regard to variables influencing behaviour towards private label brand apparels. Based on the mean value, it is noted that the married customers are strongly endorsed the variables of behaviour when compared to unmarried in the sample. This may be due to better levels of shopping experience of the apparels.

**Null Hypothesis-5: H<sub>0</sub>:** There is no significant difference between the perceptions of the nuclear and joint families with regard to dimensions of customer behaviour and satisfaction towards private label brand apparels among the sample

**Table 3: T-Test results explaining the Perceptions of customers hailing from nuclear and joint families with regard to customer behaviour and satisfaction towards private label brand apparels among the sample**

Independent variables	Type of Family				t-value	p value
	Nuclear		Joint			
	Mean	SD	Mean	SD		
Awareness	<b>39.37</b>	7.25	38.17	8.39	1.796	0.073 <sub>NS</sub>
Perception	<b>50.35</b>	13.98	46.83	14.79	2.876	0.004**
Behavioural	<b>90.94</b>	15.33	86.94	14.84	3.133	0.002**
Motivation	<b>50.67</b>	11.68	46.58	10.91	4.286	0.001**
Attitude	<b>52.54</b>	11.67	49.82	12.61	2.637	0.008**
Purchase intention of PLBs	<b>35.56</b>	5.59	34.64	6.05	1.861	0.063 <sub>NS</sub>
Purchase Behaviour of PLBs	<b>284.25</b>	49.44	268.08	50.98	3.796	0.001**
Purchase Decision Making of PLBs	<b>34.24</b>	7.60	32.22	7.75	3.110	0.002**
Satisfaction of PLBs	<b>49.70</b>	11.45	48.23	11.85	1.492	0.136 <sub>NS</sub>

Source: Primary data/Questionnaire; \*\*-indicates highly significant at 1% level of significance; \*- represents Significant at 5% level of significance; NS-indicates- not significant at 5% level of significance.

Since p value is less than 0.01,( p value for perception= 0.004; p value for behaviour= 0.002; p value for motivation= 0.001 and p value for attitude=0.008), the null hypothesis, There is no significant difference between the perceptions of the customers hailing from nuclear and joint

families with regard to variables influencing perception, individual behaviour, motivation, attitude towards private label brand apparels among the sample is rejected at 1% level of significance. Hence, it is inferred that, there is a highly significant difference between the perceptions of the customers hailing from nuclear and joint families with regard to variables influencing perception, individual behaviour, motivation, attitude towards private label brand apparels. Based on the mean values, it is noted that the variables of perception, individual behaviour, motivation, and attitude are strongly endorsed by the customers hailing from the nuclear families when compared to others in the sample. This may be due to frequent visits to malls and purchasing the apparels. on the other hand, p value for the hypothesis, there is no significant difference between the perceptions of the customers hailing from nuclear and joint families with regard to variables influencing awareness, towards private label brand apparels among the sample is observed at 0.073, is greater than 0.05 and hence, the null hypothesis is accepted at 5% level of significance. Hence, it is noted that, there is no significant difference between the perceptions of the customers hailing from nuclear and joint families with regard to variables influencing awareness, towards private label brand apparels. Based on the mean value, it is noted that, the variables of awareness in private label brands are strongly endorsed by the customers from nuclear families when compared to others in the sample. This may be due to shopping pattern and experience of the customers of nuclear families indicating the nuclear families existence in the malls and purchasing patterns of textile goods.

Since p value is less than 0.01, ( p value for behaviour=0.001 and p value for purchase decision making= 0.002) the null hypothesis, There is no significant difference between the perceptions of the customers hailing from nuclear and joint families with regard to variables influencing behaviour and purchase decision towards private label brand apparels among the sample is rejected at 1% level of significance. Hence, it is concluded that, there is a highly significant difference between the perceptions of the customers hailing from nuclear and joint families with regard to variables influencing behaviour and purchase decision towards private label brand apparels. Based on the mean value the variables relating to influencing behaviour and purchase decision towards private label brand apparels are strongly endorsed by the customers from nuclear families when compared to others in the sample. This may be due to better shopping patterns and behaviour of customers from nuclear families towards malls and private label brand apparels.

**Null Hypothesis-7: H<sub>0</sub>:** There is no significant difference between the perceptions of the customers preferred shop on week days and weekends with regard to customer behaviour and satisfaction towards private label brand apparels.

**Table 4: T-Test results explaining the Perceptions of customers preferred shop on week days and weekends with regard to regard to customer behaviour and satisfaction towards private label brand apparels.**

Independent variables	Shopping Day Preference				t-value	p value
	Week days		Week ends			
	Mean	SD	Mean	SD		
Awareness	<b>38.90</b>	7.83	38.55	7.99	0.528	0.598 <sub>NS</sub>
Perception	47.67	14.29	<b>49.13</b>	14.71	1.193	0.234 <sub>NS</sub>
Behavioural	86.05	14.56	<b>91.22</b>	15.34	4.086	0.001**
Motivation	48.00	11.38	<b>48.85</b>	11.50	0.877	0.381 <sub>NS</sub>
Attitude	49.71	11.75	<b>52.28</b>	12.58	2.495	0.013*
Purchase intention of PLBs	33.94	4.97	<b>36.07</b>	6.40	15.533	0.001**
Purchase Behaviour of PLBs	270.10	48.72	<b>280.29</b>	52.37	2.383	0.018*
Purchase Decision Making of PLBs	32.54	7.34	<b>33.68</b>	8.06	1.756	0.080 <sub>NS</sub>
Satisfaction of PLBs	47.20	11.48	<b>50.44</b>	11.67	3.308	0.001**

The p value observed for the hypothesis, there is no significant difference between the perceptions of the customers preferred shop on week days and weekends with regard to variables influencing behaviour, towards private label brand apparels among the sample is 0.001, hence, the null hypothesis is rejected at 1% level of significance. Based on the same, it is inferred that the role of behavioural variables in purchase intention and decision is high when compared to other variables in the sample. Hence behavioural issues handling needs to be focus by the private label brands in the malls. Since p value is less than 0.05. (p value for attitude=0.013), for the hypothesis, there is no significant difference between the perceptions of the customers preferred shop on week days and weekends with regard to variables attitude towards private label brand apparels among the sample is rejected at 5% level of significance. Based on the same it is inferred that the variables of attitude are having moderate level of influence towards private label brands apparels in the

sample. The attitude variables are Strongly endorsed by the customers preferred to shopping during weekends when compared to others in the sample.

Since p value is less than 0.01, ( $p=0.001$ ) the null hypothesis; there is no significant difference between the perceptions of the customers preferred shop on week days and weekends with regard to variables of purchase intention, variables of satisfaction towards private label brand apparels among the sample is rejected at 1% level of satisfaction. Hence, it is inferred that, there is a highly significant difference between the perceptions of the customers preferred shop on week days and weekends with regard to variables of purchase intention, variables satisfaction towards private label brand apparels among the sample. Based on the mean value, it is noticed that, customers preferred to shop during weekends are favored the variables of variables of purchase intention, satisfaction when compared to others in the sample. It also indicates the higher level of satisfaction perceived by the customers shopping during weekends when compared to others in the sample.

## **SUMMARY AND CONCLUSION**

Private label brands is new concept to the Indian customers, still, it took few years to catch up and stand in the market as a competitive product. The increased attention to fashion and the beauty trends of the market along with the high level of disposable incomes among the public is one of the reasons for the same. Still, a middle income customer is in dilemma to change to the new trends with the myth that PLBs are costlier when compared to normal brands. In this scenario, the markets are performing with positive note of growth and increased level of customer awareness towards PLBs in the market. Hence, the future of PLBs is assured, provided that the companies should focus on quality and durability along with fixing the prices by keeping the conservative behaviour of Indian customer. Apart from that, the in store and outside the store facilities to delight the customer is also need of the hour.

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# CORPORATE SOCIAL RESPONSIBILITY PRACTICES OF INDIAN FIRMS AND ITS RELATION TO PERFORMANCE: A STUDY OF AUTOMOBILE INDUSTRY

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## ABSTRACT

CSR is basically a moral and ethical conduct towards the society in large by a company. The primary objective of the study is “Impact of Corporate Social Responsibility Practices on the Performance of Employees and the firm in Automobile Industry: A Perception study with special reference to selected automobile Companies in Tamilnadu. The results of the study stated that, there is a highly significant relationship between the CSR practices and the performance of the employees and the firm at large and the same is proved statistically with the observed p value of 0.001 in the analysis. The higher age group, highly qualified and experienced employees can view the impact at a broader sense in terms of career development of the employees, learning value, skill development etc, rather than the economic value of the firm in terms of sales and revenue. Hence, adoption and inculcation of the customized patterns of Corporate Social Responsibility can play a vital role in the development of the employees and the firm.

**KEY WORDS:** employee demographics- perception-welfare-recognition- performance

## INTRODUCTION

Corporate social responsibility (CSR) is about how businesses align their values and behaviour with the expectations and needs of stakeholders - not just customers and investors, but also employees, suppliers, communities, regulators, special interest groups and society as a whole. CSR describes a company's commitment to be accountable to its stakeholders. CSR demands that businesses manage the economic, social and environmental impacts of their operations to maximise the benefits and minimize the downsides. Key CSR issues include governance,

environmental management, stakeholder engagement, labour standards, employee and community relations, social equity, responsible sourcing and human rights. Values or business-society perspectives of corporate responsibility essentially ask: 'Why should a company be responsible?' A more direct approach is to ask what it is that companies are being held responsible for. Although the answer is a broad and seemingly disjointed array of issues, this type of taxonomy appeals to many practitioners who are concerned less with underlying rationales and more with technical problem solving.

### **NEED FOR SOCIAL RESPONSIBILITY**

Today, businessmen are aware that society is the biggest force which controls the entire business operations, right from acquisition of land to final produce. They now feel that they cannot operate in societal isolation. Profit still being the major determinant for business houses, it is extremely difficult to strike a balance between the conflicting needs of business this earning profit and society's need to take care of its many constituents. The success of a business depends on the growth of the society because the goods and services of business are ultimately consumed by the society. So, an organization must initiate steps which will ultimately lead to economic upliftment of the people.

### **WHAT MAKES THE FIRMS TO FALL IN LINE WITH REGARD TO CSR**

Corporate social responsibility is more or less an act of company whereby it presents its concern & commitment towards the society in large in connection with the sustainability & development. CSR is basically a moral and ethical conduct towards the society in large by a company. The Companies Act, 2013 provides for CSR under section 135. Thus, it is mandatory for the companies covered under section 135 to comply with the CSR provisions in India. Companies are required to spend a minimum of 2% of their net profit over the preceding three years as CSR.. It states that every such officer of the company will be liable to for a punishment with a fine which may increase to Rs. 5 lakh but not less than Rs. 50,000 or imprisonment for a maximum term of three years of with both. This makes the companies to fall in line and compliance with the law.

## RESEARCH METHODOLOGY

### STATEMENT OF THE PROBLEM

Corporate social responsibility is part of the business today. It has happened with lot of pressure and compulsion. This is due to lack of awareness on the CSR practices importance in the business and its sub systems. In western world, CSR is mandatory for business. But in India, traditional businesses, never come across such scenario due to the inbuilt ethical and value systems and the recycling products and components. Mass production and replacement model of repairs leads to huge stocks of repaired items as waste. This has made the government to insist and impose CSR as mandatory measure in the companies of polluting nature. The Corporate Social Responsibility is the process of linking business with society and its components. The right mix of activities can help in taking the business and its brand close to its customers, suppliers, stake holders and society at large. Hence, the current study is relevant and contemporary to the topic.

### SCOPE OF THE STUDY

The scope of the current study is limited to the Automobile companies operating in Chennai, Thiruvallur, Chengalpattu, Kancheepuram and Tiruttani. The Automobile companies in the study included both public Limited and Private limited firms. The operations of the sample firms are spread across all the domains of manufacturing and assembling.

### OBJECTIVE OF THE STUDY

The general objective of the present research is “to find out the perceptions of the employees with regard to factors and impact of Corporate Social Responsibility Practices on the Performance of employees and the firm in Automobile industry.

### HYPOTHESIS

**Ho:** There is no significant difference among the perceptions of the employees with regard to factors influencing CSR Practices and the role of CSR in the Performance of the firm among the Automobile companies.

## RESEARCH METHODOLOGY

The present study is described the profile of the Automobile companies and the environment prevailing and explore the some of the facts relating to Corporate Social Responsibility climate and Practice and the employees perceptions on the same and its relevance and relationship with the performance of the employees and the firm. Initially a pilot study was conducted with 125 questionnaires and the reliability for the same was calculated by using Corn Bach's Alpha Score and found at 0.876 (87.6 Percent) as reliable. Both physical and electronic questionnaires were consolidated by thorough review of the collected questionnaires. On review, it is found that, 58 questionnaires in total found unusable due to errors of omission and dual entries and 442 samples were found suitable for the study. Data analysis is carried out with the same.

## DATA ANALYSIS AND RESULTS DISCUSSION

**Null Hypothesis:** There is no Relationship between the Age and the Perceptions on Factors influencing CSR practices, impact of CSR on the performance of the employees, firm, barriers, and benefits among the sample.

**Table-1: Relationship between the Age and the Perceptions on the CSR impact dimensions on the performance of the employees, firm and other dimensions**

Dimensions of the study		Age Group in years					F value	P value
		Upto 20	21-30	31-40	41-50	Above 50		
Factors influencing CSR Practices	Mean	53.39	56.90	57.81	58.22	<b>59.01</b>	12.397	<b>0.001**</b>
	SD	(6.55)	(4.66)	(3.76)	(4.12)	(5.86)		
Performance of an employee	Mean	34.66	37.05	38.58	37.94	<b>40.32</b>	9.141	<b>0.001**</b>
	SD	(6.88)	(5.48)	(4.33)	(5.50)	(6.40)		
Performance of the firm	Mean	34.24	36.90	38.98	38.03	<b>39.73</b>	10.479	<b>0.001**</b>
	SD	(6.73)	(5.23)	(4.01)	(5.10)	(6.04)		

Barriers in conducting	Mean	33.31	35.96	37.23	37.06	<b>38.82</b>	5.815	<b>0.001**</b>
	SD	(9.26)	(6.94)	(4.63)	(6.38)	(6.89)		
Benefits in conducting	Mean	35.16	36.66	38.15	38.17	<b>39.19</b>	5.205	<b>0.001**</b>
	SD	(7.31)	(5.90)	(4.33)	(4.52)	(6.42)		

Since p value is less than 0.01, the null hypothesis, There is no Relationship between the Age and the Perceptions on Factors influencing CSR practices; impact of CSR on the performance of the employees, firm, barriers, and benefits among the sample is rejected at 1% level of significance. Hence, it is concluded that, there is a highly significant Relationship between the Age and the Perceptions on Factors influencing CSR practices, impact of CSR on the performance of the employees, firm, barriers, and benefits among the sample. Based on the mean value, it is noted that, the employees belongs to above 50 years age group are highly agreed for the fact that, Corporate Social Responsibility practices improves the performance of the employees and the firm. In addition, it is perceived that Corporate Social Responsibility can also help the firm and employees in many other ways to improve and to help the firm to improve its overall performance.

**Null Hypothesis:** There is no Relationship between educational Qualification and the Perceptions on the factors influencing CSR practices, impact dimensions on the performance of the employees, firm and other dimensions among the sample.

**Table-2: Relationship between the Educational Qualification and the Perceptions CSR practices and impact on the performance**

Dimensions of CSR		Educational stream					F value	P value
		UG-Technical	UG-Nontechnical	PG-Technical	PG-Nontechnical	Professional		
Factors of CSR	Mean	57.42	53.87	57.22	56.06	<b>58.25</b>	8.730	<b>0.001**</b>
	SD	(3.68)	(7.52)	(4.16)	(4.56)	(5.28)		
Performance of employee	Mean	38.41	33.81	37.33	37.65	<b>38.66</b>	8.730	<b>0.001**</b>
	SD	(4.72)	(7.15)	(4.97)	(4.75)	(6.29)		

Performance of the firm	Mean	37.78	34.29	<b>38.04</b>	38.03	<b>38.04</b>	5.887	<b>0.001**</b>
	SD	(4.70)	(7.11)	(4.74)	(5.43)	(5.81)		
Barriers in conducting	Mean	37.16	32.31	36.44	36.24	<b>37.50</b>	6.708	<b>0.001**</b>
	SD	(6.06)	(9.13)	(5.71)	(7.05)	(7.07)		
Benefits in conducting	Mean	37.68	33.98	37.04	36.79	<b>38.60</b>	7.253	<b>0.001**</b>
	SD	(4.51)	(8.03)	(4.83)	(5.14)	(6.13)		

Since p value is less than 0.01, the null hypothesis, There is no Relationship between educational Qualification and the Perceptions on the factors influencing CSR practices, impact dimensions on the performance of the employees, firm and other dimensions among the sample is rejected at 1% level of significance. Based on the mean value, it is noted that, respondents with professional qualification are highly agreed that fact that CSR practices can help and have impact on the performance of the employees and the overall performance of the firm in Automobile sector. Hence, it can be viewed as a positive note and can insist on adoption and practice of CSR practice for the mutual benefit of the employees and firm and the stake holders at large. Any practice which creates value to the company in terms of physical or intellectual value should be encouraged and the ripped benefits can be shared among the contributors. The practice of sharing and caring can go a long way to improve further and sustainable in the markets.

**Null Hypothesis:** There is no relationship between department of working and the perceptions on the factors influencing CSR practices, impact dimensions on the performance of the employees, firm and other dimensions among the sample.

**Table-3: Relationship between department of working and the Perceptions on the factors influencing CSR and impact on performance**

Dimensions of CSR		Department of working					F value	P value
		Planning & Control	Establishment	HR & Training	Accounting & Taxation	Product Development		
Factors of CSR	Mean	56.17	56.59	<b>60.51</b>	56.06	56.91	7.573	<b>0.001**</b>

	SD	(4.49)	(5.15)	(6.73)	(4.13)	(5.02)		
Performance of an employee	Mean	36.62	36.26	<b>41.15</b>	38.13	37.33	6.958	<b>0.001**</b>
	SD	(5.91)	(5.67)	(6.86)	(5.55)	(5.46)		
Performance of the firm	Mean	36.66	36.27	<b>40.93</b>	37.15	37.30	6.758	<b>0.001**</b>
	SD	(5.89)	(5.98)	(6.12)	(4.89)	(5.15)		
Barriers in conducting	Mean	36.04	35.92	<b>40.49</b>	34.70	36.00	5.830	<b>0.001**</b>
	SD	(7.01)	(7.76)	(7.06)	(6.57)	(6.68)		
Benefits in conducting	Mean	36.45	36.47	<b>40.91</b>	36.34	37.17	6.456	<b>0.001**</b>
	SD	(5.85)	(5.76)	(6.31)	(5.70)	(5.69)		

The results of the table 3, shows that the p value is less than 0.01, hence, it implies, There is a highly significant Relationship between department of working and the Perceptions on the factors influencing CSR practices, impact dimensions on the performance of the employees, firm and other dimensions among the sample. Hence, the hypothesis, There is no Relationship between department of working and the Perceptions on the factors influencing CSR practices, impact dimensions on the performance of the employees, firm and other dimensions among the sample is rejected at 1% level of significance. Based on the mean value, it is noted that, the employees working in the human resources department are highly agreed the benefits of Corporate Social Responsibility practices in the company when compared to others in the sample. It may be due to better level of knowledge on the various dimensions of the Corporate Social Responsibility and its implications linked with the employee and firm performance. The human resources department can take initiatives to create awareness on the corporate social responsibility and its relevance to improve the performance of the employees and the firm. This can help in getting the better support from the employees and to adopt and implement in a better manner in all the departments in an effective way. This can spur the benefits to all over a period of time.

**Null Hypothesis:** There is no Relationship between level of management and the Perceptions on the factors influencing CSR practices, impact of CSR on the performance of employees, firm, barriers and benefits of Corporate Social Responsibility among the sample.

**Table-4: Relationship between level of management and the Perceptions on the factors influencing CSR and impact on performance**

Perceptions on various dimensions of impact of CSR		Level of management			F value	P value
		Top level	Middle level	Floor level		
Factors influencing CSR	Mean	59.40	57.45	55.90	13.235	0.000**
	SD	(5.85)	(4.22)	(5.51)		
Impact of CSR Performance of employee	Mean	40.37	37.91	36.31	13.660	0.000**
	SD	(6.09)	(5.11)	(6.15)		
Impact of CSR on Performance of the firm	Mean	39.88	37.20	36.77	4.267	0.000**
	SD	(5.97)	(5.02)	(5.86)		
Barriers in conduct CSR	Mean	38.56	36.19	35.78	12.465	0.014*
	SD	(7.21)	(6.35)	(7.57)		
Benefits of CSR	Mean	39.96	37.61	36.06	12.465	0.000**
	SD	(6.41)	(5.16)	(6.09)		

Since p value is less than 0.01, the null hypothesis, There is no Relationship between level of management and the Perceptions on the factors influencing CSR practices; impact of CSR on the performance of employees, firm, barriers and benefits of Corporate Social Responsibility among the sample is rejected at 1% level of significance. Hence, it is concluded that, there is a highly significant Relationship between level of management and the Perceptions on the factors influencing CSR practices, impact of CSR on the performance of employees, firm, barriers and benefits of Corporate Social Responsibility among the sample. Based on the mean value, it is noted

that the employees working in top level management are highly favored the impact of CSR practices on the performance of employees and the firm when compared to others in the sample.

**Null Hypothesis:** There is no relationship between experience and the perceptions on the factors influencing CSR practices, impact dimensions of CSR on the performance of the employees, firm, barriers and benefits among the sample.

**Table-5 Relationship between the Experience and the Perceptions on the factors influencing CSR practices and impact on performance**

Dimensions of study		Experience in years					F value	P value
		Below 5	5-10	10-15	15-20	Above 20		
Factors of CSR Practices	Mean	55.82	56.89	56.54	58.53	<b>59.29</b>	7.039	<b>0.000**</b>
	SD	(5.89)	(3.89)	(4.04)	(4.00)	(6.14)		
Performance of employee	Mean	37.01	37.59	37.07	37.09	<b>39.38</b>	2.308	0.057*
	SD	(6.59)	(4.90)	(4.77)	(4.93)	(6.83)		
Performance of the firm	Mean	36.41	37.06	37.56	37.47	<b>40.08</b>	5.833	<b>0.000**</b>
	SD	(6.23)	(4.85)	(4.64)	(5.38)	(5.65)		
Barriers in conducting	Mean	34.70	37.05	36.63	37.64	<b>37.90</b>	3.788	<b>0.005**</b>
	SD	(7.64)	(6.10)	(6.16)	(6.53)	(7.78)		
Benefits in conducting	Mean	36.40	36.89	37.80	37.81	<b>39.16</b>	3.115	.015*
	SD	(6.34)	(5.34)	(4.88)	(4.96)	(6.76)		

It is observed from the table 5, that, the p value is less than 0.01, for the hypothesis, there is no Relationship between experience and the Perceptions on the factors influencing CSR practices, impact dimensions of CSR on the performance of the firm, and barriers among the sample. Hence, the hull hypothesis, , there is no Relationship between experience and the

Perceptions on the factors influencing CSR practices, impact dimensions of CSR on the performance of the firm, and barriers among the sample is rejected at 1% level of significance. Based on the mean value, it is noted that, the employees with above 20 years of experience are highly agreed the fact that, Corporate Social Responsibility can help in improving the performance of the employees and the firm.

## **FINDINGS OF THE STUDY**

1. There is a highly significant Relationship between the Age and the Perceptions on Factors influencing CSR practices, impact of CSR on the performance of the employees, firm. The dimensions of improvement may be improved level of employees positive attitude towards a work, organization, communication, co-ordination, quality of work, design and development innovations in the product design, time frame for the projects, success rate of the products designed and developed, service quality of the clients and the networking of people and processes.
2. There is a highly significant Relationship between educational Qualification and the Perceptions on the factors influencing CSR practices, impact dimensions on the performance of the employees, firm. it can be viewed as a positive note and can insist on adoption and practice of CSR practice for the mutual benefit of the employees and firm and the stake holders at large.
3. There is no Relationship between department of working and the Perceptions on the factors influencing CSR practices, impact dimensions on the performance of the employees, firm and other dimensions among the sample is rejected at 1% level of significance.
4. The experienced employees can view the impact at a broader sense in terms of career development of the employees, learning value, skill development etc, rather than the economic value of the firm in terms of sales and revenue. Hence, adoption and inculcation of the customized patterns of Corporate Social Responsibility can play a vital role in the development of the employees and the firm.
5. The hull hypothesis, , there is no Relationship between experience and the Perceptions on the factors influencing CSR practices, impact dimensions of CSR on the performance of the firm, and barriers among the sample is rejected at 1% level of significance. Based on the mean value, it is noted that, the employees with above 20 years of experience are highly

agreed the fact that, Corporate Social Responsibility can help in improving the performance of the employees and the firm.

## **SUGGESTIONS AND RECOMMENDATIONS**

The performance of the firm is necessary to serve and gain the trust and confidence of the stake holders. It is the duty of the employees and management together to act and be proactive in accordance with the market demands and retain the good client base along with sustainable development of revenues, client base and market share. To get the same contribution from the employees, organization and CSR practices can help in their own way. Hence all the three needs to be focused simultaneously.

1. **Creating awareness:** The human resources department can take initiatives to create awareness on the corporate social responsibility and its relevance to improve the performance of the employees and the firm. This can help in getting the better support from the employees and to adopt and implement in a better manner in all the departments in an effective way. This can spur the benefits to all over a period of time.
2. **Regulatory measures:** Automobile sector is a polluting industry in nature. While granting the license, government should insist on emission control and other CSR practices compulsion and monitor the same at frequent intervals. Frequent environmental audit of the products should be tested in normal conditions. A stringent policy on CSR and its practice can help the companies to follow from time to time.
3. **Encouragement of best CSR practicing firms:** IN the industry, best CSR practicing companies need to identify and recognize with quality and social responsibility awards by granting temporary relief from the tariffs and taxes. This can create interest among the management to practice CSR in a regular manner.
4. **Recognition measures:** The best CSR companies in the sector can be nominated as CSR brand ambassadors on behalf of the government for a specific period of time. This can help the companies to establish good brand image in a wide manner. This can improve the competitiveness of the firm. Such measures can pressurize the management to practice CSR for the benefit of the society and environment at large.

## **SUMMARY AND CONCLUSION**

Contribution of employees, organization environment and CSR practices are indispensable for the sustainable growth and development of the business in long run. Hence, a systematic planning and adoption of development schemes, effective implementation and follow

up, revision of the schemes and plans from time to time can help in growing much faster, better and sustainable. Higher age group, highly educated and experienced employees view the impact at a broader sense in terms of career development of the employees, learning value, skill development etc, rather than the economic value of the firm in terms of sales and revenue. Hence, adoption and inculcation of the customized patterns of Corporate Social Responsibility can play a vital role in the development of the employees and the firm. Hence, CSR can act as a catalyst for the individual growth and the organization development. Hence, Corporate Social Responsibility can definitely help to improve the performance of the employees and the performance of the firm.

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## **ORGANIC FOOD PRODUCTS CONSUMER BUYING DECISIONS ARE VARFROM NORMAL PURCHASE: SOME INSIGHTS AND LEARNINGS**

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### **ABSTRACT:**

Organic foods are neither produced with the use of harmful chemical fertilizers and pesticides nor are processed using artificial preservatives, industrial solvents or synthetic food additives. In spite of growing awareness about the benefits of organic food products, the demand for organic food products is surprisingly low. However, there has been a change in the attitude of consumers during the COVID 19 Pandemic period. This study tries to analyze the awareness of organic food products amongst the consumer and also describe the buying behavior accordingly. An attempt is made to understand and examine the factors affecting consumer buying behaviour for organic food products in India with special reference to Greater Chennai corpora ration area.

**KEYWORDS:** Organic Food Products, Attitude of Consumers, Awareness, Buying Behaviour.

### **INTRODUCTION**

India is a market destination for many types of product at the international level. In recent years, India has become one of the leading markets for organic food products. Over the past decade, the organic food market has emerged not only in developed countries but also in developing countries. The changing consumption patterns especially in case of food consumption could be one of the reasons for increasing demand for organic food products globally. Also, there have been significant and alarming concerns in respect to ecology and environment. The organic farming typically is done through organic manual with the help of natural resources, thus, resulting in food produce which are free from harmful pesticides and hazardous chemical residues. These organic products do not contain any artificial preservatives, industrial solvents or synthetic food additives while being processed.

## ORGANIC FOOD PRODUCTS

India has full potential to produce all varieties and kinds of organic food products due to its abundant natural diversity and agro climatic conditions. In almost every part of the country, the inherited tradition of organic farming has become an added advantage. This provides an opportunity for the organic producers to tap the market that has witnessed accelerating growth in both domestic and foreign markets. As per 2020 data, India's ranked 8th in terms of World's Organic Agricultural Land and 1st in terms of total number of producers. The total volume of export during 2019-2020 was 6.389 lakh MT. The organic food export realization was around INR 4,686 crores (689 million USD). Organic products are exported to countries such as USA, European Union, Canada, Switzerland, Australia, Japan, Israel, UAE, New Zealand, Vietnam etc. (Source: FIBL & IFOAM Year Book, 2020).

In context to Indian states, Madhya Pradesh has covered largest area under organic certification followed by Rajasthan, Maharashtra, Gujarat, Karnataka, Odhisa, Sikkim and Uttar Pradesh. In January 2016, Sikkim became the first state to be regarded as „100 per cent Organic State“ in India by converting its entire cultivable land into organic certified farming. The major organic farming includes all varieties of food products namely Oil Seeds, Sugar cane, Cereals & Millets, Cotton, Pulses, Aromatic & Medicinal Plants, Tea, Coffee, Fruits, Spices, Dry Fruits, Vegetables, Processed foods etc.

As per the Indian Organic Foods Market Report dated 17th June 2020, “India’s organic food and beverage consumption has grown in recent years due to its advanced demographic dividend, improved purchasing power and increased interest for the perceived health and wellness benefits of certain organic products”. In market year (MY) 2019, organic food and beverage retail sales reached \$69 million and was estimated to further rise by 12 percent to \$77 million in MY 2020. Even during COVID 19 Pandemic, there was a rise in demand of organic food and beverage. Thus, India still continues to be a flourishing market for organic food and beverages with bright prospects.

## REVIEW OF LITERATURE

Krishnakumare & S. Niranjan (2017) revealed that consumers’ behaviour plays a significant role in organic food products segment. It was witnessed that there was the lack of trust on the originality of organic food products which was one of the reason for not buying the organic food products. Thus, suggesting ways to create trust among the consumers to enhance their purchase intention.

Thatte et al (2016) conducted a pilot survey in two major cities of Maharashtra - Mumbai and Thane to analyze consumer behavior towards organic foods. The survey discussed the various reasons of low consumption of organic food products. The major reason was low availability of organic food products. The study, thus, suggested formulation of policies related to production and supply.

Lakshmi Prabha and Sindhuja (2019) highlighted in the study the positive perception and behavior of consumers towards organic products on account of health concerns. But, there seems to be low awareness level among consumers regarding its availability and product attributes. Therefore, the marketers need to focus on the supply patterns and increase the market size of products with effective promotional efforts.

### **RESEARCH PROBLEM:**

After reviewing the above literature, it can be stated that though consumers have positive and favourable perception towards organic food products, the demand for such products is not so evident. There could be many reasons for it. The previous studies have different samples from various cities with varied demographic composition. The findings of these studies may not hold true in the desired study area and its population. Also, the Current COVID 19 Pandemic has great implications on the behavioural pattern of the consumers in all regards. The study has being intended to locate the reasons for the slow growth in the demand for organic food by examining the attitude, awareness, purchase intention and buying behaviour of consumers in Greater Chennai.

### **OBJECTIVES OF THE STUDY:**

The overall objective of the study focuses on factors influencing consumer behaviour towards organic food products in India with special reference to Greater Chennai region.

The specific objectives stated as:

1. To study the demographic and non- demographic composition.
2. To describe the awareness and knowledge of the consumers regarding organic food products.
3. To understand the consumer attitude, perceptions and buying behavior towards organic food products.

4. To examine the factors affecting pre purchase evaluation and investigate the barriers to actual purchase of organic food products.

### **RESEARCH METHODOLOGY:**

The Research Methodology includes different methods for understanding the population, sample and sampling, collection of data, editing, classification and interpretation of data. The Objectives and Hypotheses of the study were considered while developing the Research Methodology. The population of the study covers Greater Chennai region that include areas from Tambaram, Medavakkam, Sholinganallur, Madipakkam and Salayur. The sample size included 100 respondents from Greater Chennai. The primary data was collected from consumers using the simple random sampling method through structured questionnaires. This method was chosen for its easiness and cost efficiency to collect responses using a sample. Also, a survey of local shops, super markets and departmental stores was done. The secondary data was collected from sources such as relevant books, journals, articles, newspapers, previous thesis works, published & unpublished data and also from various websites. The sources of the secondary data used for the study has been mentioned accordingly.

### **LIMITATIONS OF THE STUDY:**

The study covers Greater Chennai region city only. The study is restricted to a sample size of 100 respondents who are aware of organic food products and consumed on regular basis. Thus, the study is limited to the understanding consumer buying behavior to the said food products only. The socio cultural aspects and socioeconomic profile of the sample area is better when compared to other parts of the city. The opinions expressed are complex and mixed in nature.

### **FINDINGS OF THE STUDY**

It was found that the respondents believed that Organic Food Products are free from harmful pesticides and hazardous chemical fertilizers. It does not contain any artificial preservatives while processing. It not only gives health benefits and helps in improving immune system but also environmental friendly and better for sustainable growth. Hence, the findings of this study have revealed that consumer's attitude is positively and directly to the pre-purchase evaluation and purchase intention. The consumers are also willing to pay premium price for the products. However, there are certain concerns regarding quality; trust related to the authenticity, supply

constraints and lack of wide range of these products, which requires necessary marketing efforts and measures for promotion of these products and to explore the growth potential of this sector.

## **SUMMARY AND CONCLUSION**

With raising personal health consciousness and awareness regarding environment issues, consumers are bound to think about the alternative farming as against the conventional farming; wherein the agricultural produce are free from any chemical residue. Organic food products slowly but gradually has created its own niche in the market. Thus, there has been a considerable shift in the perception and attitude of consumers towards such products as they are healthy, nutritious, safe and grown with an environmentally and socially responsible approach. This has led to the increase of demand of organic food products both in India and worldwide. However, there is still a need for effective marketing and promotional measures to increase the awareness level amongst consumers, farmers and dealers regarding the benefits of organic food products and its growing demand. This allied sector ways out new avenues and opportunities for dealers, farmers, produce owners, agricultural industry, food and processing industry and even restaurants and hotels in coming years ahead and hence, its relevance cannot be ignored.

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## PERSONAL, BEHAVIOURAL, WORK ENVIRONMENT FACTORS ROLE IN EMOTIONAL INTELLIGENCE AND ITS IMPACT ON PERFORMANCE AT WORK

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### **ABSTRACT :**

Emotional intelligence is a situational reaction of an individual, either at home or at work and its relation to job related outcomes. The present study aimed to find the influence of demographic factors on emotional intelligence of employees at workplace of Chennai automobile industry, descriptive research is appropriate. The Results shows that, all the variables with respect to emotional intelligence factors, job satisfaction, performance and turnover intention as well as work environment and job stress are interlinked with each other to find the impact of emotional intelligence on work related outcomes of employees who are working in Indian automobile industry with special reference to Chennai City. It is also noted that, there is a highly significant difference in emotional intelligence level and levels of work environment, job stress, job satisfaction, job performance of the employees in automobile industry in the sample with the observed po value of 0.001 as less than 0.01 and the null hypothesis is rejected.

**KEYWORDS:** work environment-stress-peer group-learning-emotion

### **INTRODUCTION**

. Accordingly, the effort on the part of the leader will be to change the emotional state of followers or employees in terms of energizing and motivating to keep them focused at workplace. In this regard, the manufacturing economy of the past focused on productivity and solo-driven work, these days' collaboration and teamwork are emphasized—making emotional intelligence more important in the workplace. "People increasingly rely on each other to get things done and that means understanding each other's motives and emotions is a lot more important than it used to be. Emotional intelligence has the potential to make impact in many areas of life; for instance,

it could be the way one behaves and interacts with others. It is known that not the smartest people that are the most successful or the most fulfilled in life and people who are academically brilliant and yet are socially inept and unsuccessful at work or in their personal relationships.

Emotional intelligence could be interpreted in various contexts with respect to organizational performance. Chartered Management Institute (2004) refers to this aspect as “Emotional Intelligence” is in terms of an individual’s potential to “perceive, understand, integrate and manage one's own and other people's feelings and emotions, and act accordingly upon them in a reflective and rational manner”.

### **RESEARCH GAP AND STATEMENT OF THE PROBLEM**

There are lot of studies discussed the impact of emotional intelligence in job outcomes of different industries (Joo & Park, 2010; Van Schalkwyk et al., 2011; Farahani et al., 2011; Jorfi et al., 2011). These studies expressed the view of reason for turnover intention of different firms. However, it does not clearly express the impact of emotional intelligence, specifically in job related outcomes. Hence it is necessary to analyse the job satisfaction and job performance among the automobile employees. Considering this gaps and issues in automobile sector, the present study aimed to focus on the impact of emotional intelligence on job performance, job satisfaction of employees in automobile industry.

### **RESEARCH DESIGN AND METHODOLOGY**

The research design adopted for this study is descriptive research. Primary data has been collected from the employees of automobile industry in Chennai. The secondary data is collected from various sources like National and International journals, websites, research documents. The researcher made use of the questionnaire approach in order to obtain responses from the employees in the automobile industries in chennai. In the current study, questionnaire was used to validate the employees’ perception towards emotional intelligence and its impact at work place. A variables identified from literature review was used to develop questionnaire. Five companies were agreed to cooperate with some restrictions including maintaining the anonymity of employees identity and name of the manufacturing units.

## DATA ANALYSIS AND RESULTS DISCUSSION

### I. Analysis of factors influencing emotional intelligence

**Null Hypothesis:** There is no significant difference between the perceptions of male and female with regard to factors influencing emotional intelligence of the employees working in automobile sector.

**Table 1: Factors of emotional intelligence along with t-test results**

Work related Variables			t value	P value
	Male	Female		
	Mean (SD)			
Self-Awareness	3.99(0.6)	3.78(0.74)	3.396	0.001**
Self-Management	3.88(0.63)	3.71(0.59)	2.901	0.004**
Social Awareness	3.82(0.69)	3.52(0.76)	4.340	0.001**
Relationship Management	3.84(0.59)	3.61(0.64)	3.973	0.001**
Overall Emotional Intelligence	3.88(0.49)	3.66(0.56)	4.614	0.001**

Note: \*\*- indicates highly significant at 1% level of significance. \*-indicates significant at 5% level of significance. Values in ( ) Parenthesis indicates SD (Standard deviation).

Since p value is less than 0.01, the null hypothesis, There is no significant difference between the perceptions of male and female with regard to factors influencing emotional intelligence of the employees working in automobile sector is rejected at 1% level of significance. Hence, it is inferred that, there is a highly significant difference between the perceptions of male and female with regard to self-awareness, self-management, social awareness and relationship management factors influencing emotional intelligence of the employees working in automobile sector. Based on the mean value, it is noticed that, male employees are strongly endorsed the self-awareness, self-management, social awareness and relationship management as environment factors of emotional intelligence in the automobile sector when compared to female in the sample. Hence, creating self-awareness, training on self-management, social awareness and its importance, relationship management practice through personality development techniques can help in improving the emotional intelligence and there by performance of the employees in the automobile sector.

## II. Analysis of job related variables as factors in turnover intention of the employees.

**Null Hypothesis:** There is no significant difference between male and female with regard to job related variables as factors in turnover intention of the employees in automobile sector.

**Table: 36: Job related variables as factors in turnover intention of the employees along with t-test**

Job related Variables	Gender		t value	P value
	Male	Female		
	Mean (SD)			
Work Environment	3.69(0.86)	3.52(0.87)	2.150	0.032*
Job Stress	1.94(0.67)	2.1(0.6)	-2.636	0.009**
Job Satisfaction	3.68(0.86)	3.46(0.88)	2.666	0.008**
Job Performance	3.6(0.97)	3.42(0.94)	2.034	0.042*
Turnover Intention	3.1(0.92)	3.3(0.75)	-2.501	0.013*

Note: \*\*- indicates highly significant at 1% level of significance. \*-indicates significant at 5% level of significance. Values in ( ) Parenthesis indicates SD (Standard deviation).

Since p value is less than 0.01, the null hypothesis, There is no significant difference between male and female with regard to job related variables as factors in turnover intention of the employees in automobile sector is rejected at 1% level of significance. Hence, it is concluded that, there is a highly significant difference between male and female with regard to job stress and job satisfaction as factors in turnover intention of the employees in automobile sector. Based on the mean value, it is noticed that, job stress as a factor is strongly endorsed by the female employees in the sample. On the other hand job satisfaction as a factor of turnover intention is strongly endorsed by male employees in the sample. This may be due to nature of portfolios held by the employees personally and with family. Turnover intention can be reduced through creating the systematic panning and giving reasonable work load and job satisfaction can be improved through effective engagement of the employees at work.

Similarly, p value is less than 0.05, hence, the null hypothesis; there is no significant difference between male and female with regard to job related variables as factors in turnover

intention of the employees in automobile sector is rejected at 5% level of significance. Hence, it is noted that, there is a significant difference between male and female with regard to work environment, job performance and turn over intention as factors in turnover intention of the employees in automobile sector. Based on the mean value, it is noted that, male employees strongly endorsed the work environment and job performance variables as factors on turnover intention among the employees in the sample when compared to female employees. Hence, it is necessary to improve the work environment in terms of physical working conditions and improve the team spirit with good level of communications among the employees to avoid the behavioural issues at work. For this creating a transparent and committed top level involvement is need of the hour. This can help in regenerating the trust and confidence of the employees and there by turnover intention may come down in the days to come.

### III. Analysis of work environment variables as factors in emotional intelligence among the age groups.

**Null Hypothesis:** There is no significant difference between the age groups with regard to work environment variables as factors of emotional intelligence among the employees working in automobile sector.

**Table 2: Work environment variables in emotional intelligence among the age groups**

Work related variables	Age group in years				F value	P value
	Less than	31-35	36-45	Above 45		
	Mean (SD)					
Self-Awareness	3.71 (0.71) <sup>a</sup>	3.99 (0.65) <sup>b</sup>	3.92 (0.59) <sup>b</sup>	4.13 (0.66) <sup>c</sup>	8.014	<.001**
Self-Management	3.68 (0.62) <sup>a</sup>	3.87 (0.63) <sup>ab</sup>	3.79 (0.59) <sup>bc</sup>	4.03 (0.59) <sup>c</sup>	5.858	<0.001**
Social Awareness	3.57 (0.77) <sup>a</sup>	3.70 (0.72) <sup>a</sup>	3.68 (0.68) <sup>a</sup>	3.97 (0.72) <sup>b</sup>	4.932	0.002**
Relationship Management	3.67 (0.62) <sup>a</sup>	3.68 (0.62) <sup>a</sup>	3.75 (0.62) <sup>a</sup>	3.97 (0.57) <sup>b</sup>	4.452	0.004**
Overall Emotional Intelligence	3.66 (0.56) <sup>a</sup>	3.81 (0.52) <sup>ab</sup>	3.79 (0.46) <sup>b</sup>	4.02 (0.52) <sup>c</sup>	8.341	<.001**

Note: \*\*- indicates highly significant at 1% level of significance. \*-indicates significant at 5% level of significance. Values in ( ) Parenthesis indicates SD (Standard deviation).

Since p value is less than 0.01, the null hypothesis, There is no significant difference between the age groups with regard to work environment variables as factors of emotional intelligence among the employees working in automobile sector is rejected at 1% level of significance. Hence, it is concluded that, there is a highly significant difference between the age groups with regard to work environment variables as factors of emotional intelligence among the employees working in automobile sector. Based on the mean value, it is noted that, employees belongs to above 45 years age groups are strongly endorsed the fact that, self-awareness, self-management, social awareness and relationship management as work environment variables affecting the emotional intelligence of the employees working in the automobile industry in the sample. This may be due to long years of work experience in the sector. This indicates the need for training and development practices design and development and implementation of those for employee benefit of the employees and to the firm at large. This can help the employees to have balanced emotional levels and to focus on productivity and performance.

**IV. Analysis of job variables affecting turnover intention of the employees**

**Null Hypothesis:** There is no significant difference between age groups with regard to job related variables as factors in turnover intention of the employees in automobile sector.

**Table: 36: Job related variables as factors in turnover intention of the employees**

job variables	Age group in years				F value	P value
	Less than 30	31-35	36-45	Above 45		
	Mean (SD)					
Work	3.45 (0.94)	3.69	3.51	4.08	10.434	<0.001**
Job Stress	2.13 (0.58)	1.97	2.06	1.67	9.794	<.0.001**
Job Satisfaction	3.43 (0.93)	3.67	3.53	3.91	5.797	<0.001**
Job Performance	3.26 (0.10)	3.69	3.46	3.96	10.791	<.0.001**
Turnover	3.36 (0.80)	3.01	3.33	2.78	11.091	<.0.001**

Note: \*\*- indicates highly significant at 1% level of significance. \*-indicates significant at 5% level of significance. Values in ( ) Parenthesis indicates SD (Standard deviation).

Since p value is less than .01, the null hypothesis, There is no significant difference between age groups with regard to job related variables as factors in turnover intention of the employees in automobile sector is rejected at 1% level of significance. Hence, it is concluded that, there is a highly significant difference between age groups with regard to job related variables as factors in turnover intention of the employees in automobile sector. Based on the mean value, it is noticed that, work environment, job satisfaction and job performance are recognized as prime factors influencing the employee turnover intention among the sample is strongly endorsed by the employees belongs to above 45 years age group. On the other hand, below 30 years age group employees feel that job stress as major cause for turnover intention of the employees in automobile sector. This indicates that, less experienced employees and freshers are to be trained to cope with the stress and work life balance. It is also fact that, the fresh employees are new to actual work environment and dynamic situations at work. The induction programmes on usage of technology, time management and planning of production activities can help them to cope with the stress.

#### V. Analysis of relationship between level of management of working and the factors of emotional intelligence

**Null Hypothesis:** There is no significant difference among the employees working in different levels of management with regard to work environment variables as factors of emotional intelligence among the employees working in automobile sector.

**Table 3: Work environment variables as factors in emotional intelligence among the employees working in different levels of management**

Work related variables	Designation			F value	P value
	Middle	Senior	Junior		
	Mean (SD)				
Self-Awareness	4.04 (0.58)	3.94 (0.56)	3.67 (0.82)	13.489	<0.001**
Self-Management	3.88 (0.58)	3.85 (0.55)	3.67 (0.72)	4.985	0.007**
Social Awareness	3.85 (0.67)	3.67 (0.68)	3.54 (0.84)	6.491	0.002**
Relationship Management	3.87 (0.59)	3.71 (0.56)	3.60 (0.70)	8.071	<0.001**

Overall	Emotional	3.90	3.79	3.62	12.114	<0.001**
Intelligence		(0.46)	(0.41)	(0.68)		

Note: \*\*- indicates highly significant at 1% level of significance. \*-indicates significant at 5% level of significance. Values in ( ) Parenthesis indicates SD (Standard deviation).

Since p value is less than 0.01, the null hypothesis, There is no significant difference among the employees working in different levels of management with regard to work environment variables as factors of emotional intelligence among the employees working in automobile sector is rejected at 1% level of significance. Hence, it is concluded that, there is a highly significant difference among the employees working in different levels of management with regard to self-awareness, self-management, social awareness and relationship management as factors of emotional intelligence among the employees working in automobile sector. Based on the mean value, it is noticed that, employees working in the middle level management are strongly endorsed, self-awareness, self-management, social awareness and relationship management as factors of emotional intelligence among the employees working in automobile sector when compared to others in the sample. It may be due to understanding of the issues of both bottom level employees and top level management on regular co-ordination helps the middle level managers to have a better understanding on the issues at work. Hence, once more it is proved that, emotional intelligence is a factor of self-awareness, self-management, social awareness and relationship management of the work place environment among the employees working in automobile sector.

**VI. Analysis of relationship between turnover intention and job factors among the various levels of management**

**Hull Hypothesis:** There is no significant difference between levels of management with regard to job related variables as factors in turnover intention of the employees in automobile sector.

**Table: 36: Job related variables as factors in turnover intention of the employees**

Job related variables	Designation			F value	P value
	Middle	Senior	Junior		
	Mean (SD)				
Work Environment	3.75 (0.83)	3.60 (0.84)	3.45 (0.93)	4.866	0.008**

Job Stress	1.89 (0.68)	2.10 (0.55)	2.07 (0.66)	5.768	0.003**
Job Satisfaction	3.72 (0.83)	3.58 (0.79)	3.41 (0.98)	5.142	0.006**
Job Performance	3.66 (0.93)	3.52 (0.91)	3.34 (1.03)	4.605	0.010**
Turnover Intention	3.12(0.93)	3.25 (0.74)	3.21 (0.86)	1.137	0.322

Note: \*\*- indicates highly significant at 1% level of significance. \*-indicates significant at 5% level of significance. Values in ( ) Parenthesis indicates SD (Standard deviation).

Since p value is less than 0.01, the null hypothesis, There is no significant difference between levels of management with regard to job related variables as factors in turnover intention of the employees in automobile sector is rejected at 1% level of significance. Based on the same, statistically, it is inferred that there is a highly significant difference between levels of management with regard to job environment, job stress, job satisfaction and job performance as job related variables influencing turnover intention of the employees in automobile sector. Based on the mean value, it is noticed that, employees working in the middle level management are strongly endorsed job environment, job satisfaction and job performance as job related variables influencing turnover intention of the employees in automobile sector when compared to others in the sample. On the other hand Job stress as a variable in the turnover intention is highly endorsed by the employees working in the junior level management. The overall turnover intention is high among the employees working in the senior level management in the sample. Hence, it is proved that the level of agreement on the job related variables as factors in influencing the turnover intention of the employees is statistically significant.

## SUGGESTIONS AND RECOMMENDATIONS

The present study has produced some important results that have implications for both research and practice. The study on employee's emotional intelligence and their ability to perform effectively on the job is identified as **they are not able to manage** their emotional intelligence, which has a direct impact on their job. Further, the level of emotional intelligence and performance level of the employees is moderate to low, these skills are to be developed for achieving higher employee productivity and to enhance the image of the organization. This has implications for

management, suggesting that organizations could be profitable by identifying the level of emotional intelligence of employees and apply interventions that are focused on the developing emotional intelligence among the low-level employees in the organization.

## SUMMARY AND CONCLUSION

From the study findings, it is concluded that the level of emotional intelligence and job related factors showed significant difference in gender, age group, designations, year of experience, amount of salary, various department, educational level of employees. Further it is observed that there is a significant difference in emotional intelligence level and levels of work environment, job stress, job satisfaction, job performance, turnover intention of employees. In addition to this, there is a **positive** association was observed in the work environment level and **job stress**, job satisfaction, job performance and turnover intention of the employees. Similarly, the association between job stress and job performance, satisfaction and turnover intention of the employees was observed. Furthermore, it is observed that the association between job satisfaction level as well as job performance and turnover intention of the employees. Finally, there is a strong association in overall emotional intelligence, work environment and job stress that influence job satisfaction. Additionally, there is a strong association in overall emotional intelligence, work environment and job stress that influence job satisfaction influence job performance. Moreover, there is a strong association in overall emotional intelligence, work environment, job satisfaction and job performance.

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## **ETHICAL ISSUES ON WORK FROM HOME IN INDIA: THEORETICAL STUDY**

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### **ABSTRACT**

The Coronavirus pandemic has brought about a shift of working habits as close to more than 60% of the workforce presently can work from home in India. This has driven numerous to find out if it very well may be the start of a more long-lasting progress within working habits. Such a move conveys huge morally striking advantages and disadvantages in regards to metropolitan turn of events, environmental change, psychological well-being, and then some.

**KEY WORDS:** Covid-19, working habits, workforce

### **INTRODUCTION**

Increasing COVID India's companies have been pushed to continue working from home due to 19 incidents across the nation because they place a high focus on the health and safety of its workers. Some businesses that allowed workers to visit their offices between November and December have switched back to a work-from-home schedule.

An employee, Debina Roy She said that she is living her best life now as she is not wasting her time by spending three hours going to the office and coming back home. Secondly, she is happy that she is far away from a high-pressure environment. She feels relaxed working from home. (India Today Web Desk)

Everyone, whether they are employers or employees, now has some knowledge about WFH, however it mostly varies based on differing perspectives because to the extraordinary catastrophe of Covid-19. Even among academics, there is no universally accepted definition of WFH.

### **OBJECTIVE OF THE STUDY**

1. To Study about the problems of Work from Home Culture
2. To Suggest some points to improve Workers Productivity.

### **OVERWORKING**

As a result of the pandemic, the majority of us have been working from home. Even if it has been convenient, other people have found it to be awful; according to a recent Microsoft survey, about 57 percent of workers feel overworked. The report also finds that one in four Indian employees, or around 24 percent, have sobbed with a coworker, and 35 percent no longer feel embarrassed when their personal lives are evident at work while they are working from home. In fact, 37% of workers got to meet the families of their coworkers as a result of offices infiltrating people's homes.

As a result, 32 percent of Indian employees reported feeling tired and over 57 percent felt stressed. ( Indiatimes)

### **DISTRACTIONS AT HOME**

The TV, children, dogs, or family activities can all provide interruptions that affect how you complete your task. Your productivity and imagination may be affected as a result of all of the interruptions.

### **WORK LIFE BALANCE**

When the COVID-19 pandemic struck, many employers switched to virtual work. Being forced to work from home makes it more difficult for many people to strike a balance between work and personal life. Those who provide care have found this to be particularly true.

### **LACK OF PROPER INFRASTRUCTURE AT HOME**

Lack of dedicated and ergonomically compliant workspace at home, inadequate IT infrastructure and data speed continue to be key challenges impacting performance, according to a survey conducted by property consultant CBRE.

## **PRODUCTIVITY**

Most of the Research indicates WFH is increasing the productivity level but Employee productivity while working from home can differ from person to person, just like in a real office setting. The difference, then, occurs when office workers are required to meet a daily goal before their regular working hours are over. Even if daily goals are created in a virtual working environment, they cannot be monitored and managed like they could in the former.

## **EMPLOYEE'S AUTONOMY**

As there is no supervision, the employee has a higher level of autonomy and has greater freedom to choose their working hours and schedule (Shamir & Solomon, 1985). They may manage their personal and professional lives by taking care of their own needs and expectations as well as working at their leisure.

## **SUGGESTION**

1. Adopt meetings that can be similar, or replace certain meetings with a comprehensive email.
2. Learn effective ways for relaxing on your own.
3. Create a daily timetable and put it on paper rather than having one inadequate schedule.
4. Maintain a quiet environment. At least once every day, clean up your workspace.

## **CONCLUSION**

For many people, working from home is much more pleasant. Because they don't have to travel as frequently, employees can save an alot of time and money, increasing the amount of time for both business and personal needs. Similarly, working from home need not include spending the entire day indoors. Individuals might choose to work in their lawn or garden, or wherever else feels comfortable to them. Moreover, since they have control over when they work and when they take breaks, employees are less stressed. These factors will aid in delivering improved performance on projects.

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## EFFICIENCY ON CHOOSING BANKING INVESTMENT OPTIONS BY SBI INVESTORS

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### ABSTRACT

State Bank of India, the country's largest commercial Bank in terms of profits, assets, deposits, branches and employees. SBI, with its heritage and efficient performance dating back to the year 1806, strives to continuously provide latest and up to date information on its financial operations. The Bank communicates with the stakeholders through a variety of channels such as through e-mail, website, conference call, one-on-one meeting, analysts' meet and attendance at Investor Conference throughout the world and find Bank's financial results, analysis of performance and other highlights which will be of interest to Investors, Fund Managers and Analysts. SBI has always been fundamentally strong in its core business which is mirrored in its results from year after year. This paper mainly focuses on the efficiency on choosing banking investment options by the SBI investors. The study has been done upon various Investment products available to SBI investors. The study sample consists of 112 respondents and convenient sampling technique is used. From the above findings it can be concluded that out of nine banking investment options features only two has an impact based upon Age category through correlation analysis. The expected value are higher than significance value so further the research has to be conducted to find out the satisfied result and identify the current scenario in banking investment platform associated with risk and return aspects and the choice of preference of investment options by different individual investors portfolio.

**KEYWORDS**-Banking Investment options, SBI Investors influence, Investment Effectivity and Investors objective

**INTRODUCTION**-Investment banking deals with raising money for companies, governments and other entities. Investment banks employ investment bankers help to manage large projects, savings their clients time and money by identifying risk associated with the project before the client moves forward. In brief investment bankers are experts who have their finger on the pulse

of the current investment climate, so business and institutions turn to investment banks for advice on how best to plan their development, as investment bankers can tailor their recommendations to the present state of economic affairs. The Bank communicates with the stakeholders through a variety of channels such as through e-mail, website, conference call, one-on-one meeting, analysts' meet and attendance at Investor Conference throughout the world and find Bank's financial results, analysis of performance and other highlights which will be of interest to Investors, Fund Managers and Analysts. SBI has always been fundamentally strong in its core business which is mirrored in its results from year after year.

### **Review of Literature**

**According to Khalate, Santosh Balasaheb, Pimple, Vandana V (2022)**- Government should come out with attractive investment scheme so that the farmers can earn revenue by investing the compensation amount. Investment scheme should be like, 60% of the compensation amount can be given to the affected farmers at the time of acquiring their land. Government should make it mandatory for the farmers that out of given compensation amount certain portion must be invested in purchase of agricultural land. Remaining 40 % compensation would be in the form of long-term Government bonds, government investment scheme and fixed deposit so they can have regular income source. Government should conduct awareness program regarding different investment schemes for the farmers. Farmers should take advice from financial adviser for their investment.

**According to Baldeo B. Kakde, Ashish A.Linge (2022)**- Financial banking investment options like banks, insurance, post office , capital markets are highly liquidated and can easily converted into cash. Non- financial investment options like plots, agriculture land and gold etc usually takes comparatively longer time to liquidate. Therefore, liquidity aspect along with return on investment of any investment option must always considered by the investors before investing their hard-earned money in any investment tool.

**According to V.Rani ,S. Benita (2022)**- The investors' preference and satisfaction towards mutual funds is that the better returns to investors. The prime and major benefits for making investment in SBI mutual funds followed by tax savings and safety. The new economic policy provides a new dimension to private players to identify the customer need and satisfy the rational investors within the short period. SBI mutual funds to improve the quality of services by the way of finding the need of customers and help them to choose a right mutual fund product according to their specific conditions. **According to R. Sreelakshmi and R. Mahesh Kumar (2020)** -Systematic Investment Plans are market linked and Its returns are not guaranteed. Recurring Deposits are one of the safest investment options, So the returns are

guaranteed at a fixed interest rate. Systematic investment plan gives us good returns on long term investment options. The return on Systematic investment plan depends on market and can vary across schemes and market conditions. Investors should make investments by considering their risk appetite in order to allow their investments to grow and generate better returns. It is recommended, to consult and keep in touch with a qualified advisor or firm before taking a decision about investments. **According to Mayur K. Joshi, Mehulkumar Prakaschandra Desai (2017)**- In mutual fund investment increase in age the Gujarat state investors prefer to invest more in fixed deposit. The Influencer in purchasing a Mutual Fund is concerned as the majority of Mutual Fund Investors gave priority to 'Own decision', followed by 'Family' and 'Agent'. The most important scheme preferred by investors related to Mutual Fund is Growth Funds followed by Tax saving funds in Gujarat State. Majority of Mutual Fund Investors considered Higher Return by fund and Safety of Capital as a "Highly Important" factor when purchasing a Mutual Fund. Further, the majority of Mutual Fund Investors considered Company Reputation, Past Performance of fund, Past Dividend of fund, Risk Bearing and Brokers/Agents as an "Important" factor when purchasing a Mutual Fund.

**RESEARCH GAP**-As per the studies pertaining to the Investment options there are several studies relating to various Investment institutions and financial institutions. But there are no studies related to the banking sector and their new innovative investment products. This study has mainly focused on banking investment options with reference to State Bank of India investors.

**OBJECTIVES**-To recognize the superlative investment options favoured by various age category based upon the State Bank investors expectation and return on their investment objectives.

### **HYPOTHESES FOR THE STUDY**

H01 -There is no significant relationship between Age and Fixed Deposits.

H02 -There is no significant relationship between Age and Mutual Funds.

H03 -There is no significant relationship between Age and Recurring Deposits.

H04 -There is no significant relationship between Age and Bonds.

H05 -There is no significant relationship between Age and National Pension Scheme.

H06 -There is no significant relationship between Age and Unit Linked Insurance Plan.

H07 -There is no significant relationship between Age and Liquid Fund.

H08 -There is no significant relationship between Age and Public Provident Fund.

H09 -There is no significant relationship between Age and Senior Citizen Saving Scheme.

### Research Methodology Table

<b>Table 1 Research methodology</b>	
<b>Research framework</b>	Descriptive, qualitative, investigative and expressive research design
<b>Sampling type</b>	Convenience Sampling
<b>Study unit</b>	Banking Investment options, SBI Investors influence, Investment Effectivity and Investors objective
<b>Samples, Study Period</b>	112, December 2022 to January 2023
<b>Study mode</b>	Digitally framed questionnaire with score value using a five-point Likert sale
<b>Collected data</b>	Primary data-Electronic approach to through E-letter and relative form of communication, Secondary Data-Journals
<b>Analytical study</b>	Exploratory analysis- Correlation
<b>Source: Authors compiled data</b>	

**Interpretation:** Table 1 consists about research methodology framework, type of sampling used for research, specific unit of study, sample size taken for Research analysis, period of study mode of study to collect information and the analysis tools and techniques used for the Research purpose.

### Data analysis and Interpretation

<b>Valid</b>	<b>Frequency</b>	<b>Percent</b>	<b>Valid Percent</b>	<b>Cumulative Percent</b>
<b>Gender</b>				
Female	64	57.1	57.1	57.1
Male	48	42.9	42.9	100.0
Total	112	100.0	100.0	

<b>Age</b>				
18-25	74	66.1	66.1	66.1
26-35	20	17.9	17.9	83.9
36-45	6	5.4	5.4	89.3
46-55	6	5.4	5.4	94.6
Above56	6	5.4	5.4	100.0
<b>Monthly Income</b>				
Rs10000-Rs20000	51	45.5	45.5	45.5
Rs21000-Rs30000	9	8.0	8.0	53.6
Rs31000-Rs40000	12	10.7	10.7	64.3
Rs41000-Rs50000	6	5.4	5.4	69.6
AboveRs51000	34	30.4	30.4	100.0
Total	112	100.0	100.0	
<b>Qualification</b>				
Below Graduation	10	8.9	8.9	8.9
Graduation	42	37.5	37.5	46.4
Post-Graduation	54	48.2	48.2	94.6
Other Qualification	6	5.4	5.4	100.0
Total	112	100.0	100.0	
<b>Occupation</b>				
Professional	44	39.3	39.3	39.3
Public sector	6	5.4	5.4	44.6
Private sector	52	46.4	46.4	91.1
Self employed	10	8.9	8.9	100.0
Total	112	100.0	100.0	
<b>Source- Primary data analysis</b>				

**Interpretation for Demographic profile:** The population profile that out of total 112 respondents in which 66.1% falls the age group of 18-25 years where as 17.9% fall under the age group of 26-35 years, there are 5.4% respondents from the age group of 36-45 years and also 46-55 years and 5.4% respondents from the age group above 55 years. There are 42.9% male respondents and 57.1% female respondents. Out of 112 respondents the monthly income earned between Rs 10000 to Rs 20000 is 45.5%, Rs 21000 to Rs 30000 is 8%, Rs 31000 to RS 40000 is 10.7%, Rs 41000 to

Rs 50000 is 5.4% and Above Rs 51000 is earned by 30.4% of respondents. Out of 112 respondents 8.9% respondents are below graduates, 37.5% respondents have bachelor qualification, 48.2% respondents have master’s qualification and 5.4% respondents have some other educational qualification. The occupational level of collected sample size are 46.4% respondents works in private sector, 5.4% respondents work in public sector ,8.9% respondents are self-employed and 39.3% respondents belong to professional category.

**Reliability Statistics Analysis Table**

Reliability Statistics	
Cronbach's Alpha	N of Items
.760	9

**Interpretation:** The Cronbach’s alpha value is found to be 0.760 which is 76% and it is found to be reliable and consistent.

**Correlation Analysis Table**

Correlations											
		Age	Fixed Deposits	Mutual Funds	Recurring Deposit	Bonds	National Pension Scheme	Unit Linked Insurance Plan	Liquid Fund	Public Provident Fund	Senior Citizen Saving Scheme
Age	Pearson Correlation	1	.120	-.001	.116	-.063	-.111	-.260*	.097	-.204*	.103

	<b>Sig. (2-tailed)</b>		.208	.988	.222	.511	.244	.006	.308	.031	.278
	<b>N</b>	112	112	112	112	112	112	112	112	112	112
<b>Fixed Deposits</b>	<b>Pearson Correlation</b>	.120	.1	.335**	.139	.433**	.482**	.053	.006	.048	.201*
	<b>Sig. (2-tailed)</b>	.208	.208	.000	.143	.000	.000	.577	.949	.612	.034
	<b>N</b>	112	112	112	112	112	112	112	112	112	112
<b>Mutual Funds</b>	<b>Pearson Correlation</b>	-.001	-.335**	-.1	-.043	-.343**	-.197*	-.113	-.041	-.073	-.016
	<b>Sig. (2-tailed)</b>	.988	.000	.652	.652	.000	.037	.234	.665	.445	.870
	<b>N</b>	112	112	112	112	112	112	112	112	112	112
<b>Recurring</b>	<b>Pearson Correlation</b>	.116	.139	-.043	.1	-.123	-.049	.109	.012	.194*	-.160

<b>Deposition</b>	<b>elation</b>										
	<b>Sig. (2-tailed)</b>	.22	.143	.652		.197	.605	.254	.902	.041	.091
	<b>N</b>	112	112	112	112	112	112	112	112	112	112
<b>Bonds</b>	<b>Pearson Correlation</b>	-.063	.433**	.343**	-.123	.1	.467**	-.065	-.056	-.142	.045
	<b>Sig. (2-tailed)</b>	.511	.000	.000	.197		.000	.499	.555	.135	.634
	<b>N</b>	112	112	112	112	112	112	112	112	112	112
<b>National Pension Scheme</b>	<b>Pearson Correlation</b>	-.111	.482**	.197*	-.049	.467**	.1	.065	.249**	-.030	-.036
	<b>Sig. (2-tailed)</b>	.244	.000	.037	.605	.000		.495	.008	.750	.703
	<b>N</b>	112	112	112	112	112	112	112	112	112	112

<b>Unit Linked Insurance Plan</b>	<b>Pearson Correlation</b>	- .260**	.053	.113	.109	- .065	1	- .082	.171	.009
	<b>Sig. (2-tailed)</b>	.006	.577	.234	.254	.499	.495	.390	.072	.927
	<b>N</b>	112	112	112	112	112	112	112	112	112
<b>Liquid Fund</b>	<b>Pearson Correlation</b>	.097	.006	-.041	.012	-.056	.249**	-.082	.107	.067
	<b>Sig. (2-tailed)</b>	.308	.949	.665	.902	.555	.008	.390	.260	.483
	<b>N</b>	112	112	112	112	112	112	112	112	112
<b>Public Provident Fund</b>	<b>Pearson Correlation</b>	-.204*	.048	-.073	.194*	-.142	-.030	.171	.107	.474**
	<b>Sig. (2-tailed)</b>	.031	.612	.445	.041	.135	.750	.072	.260	.000

	N	11 2	112	112	112	11 2	112	112	11 2	112	112
<b>Senior Citizen Saving Scheme</b>	<b>Pearson Correlation</b>	.103	.201*	-.016	-.160	.045	-.036	.009	.067	.474*	1
	<b>Sig. (2-tailed)</b>	.278	.034	.870	.091	.634	.703	.927	.483	.000	
	N	11 2	112	112	112	11 2	112	112	11 2	112	112
<b>**.</b> Correlation is significant at the 0.01 level (2-tailed).											
<b>*</b> . Correlation is significant at the 0.05 level (2-tailed).											

**H01 -There is no significant relationship between Age and Fixed Deposit:** The correlation table reveals that the Pearson’s coefficient value for the relationship between Age and Fixed Deposit is 0.120 which shows a low positive correlation. The significant value for Fixed Deposit is 0.208 which is more than 0.05 and shows that there is no significant relationship between Age and Fixed Deposit. Thus, the H01 is accepted. **H02 -There is no significant relationship between Age and Mutual Funds:** The correlation table reveals that the Pearson’s coefficient value for the relationship between Age and Mutual Fund is -0.001 which shows a low negative correlation. The significant value for Mutual Funds is 0.988 which is more than 0.05 and shows that there is no significant relationship between Age and Mutual Funds. Thus, the H02 is accepted. **H03 -There is no significant relationship between Age and Recurring Deposits:** The correlation table reveals that the Pearson’s coefficient value for the relationship between Age and Recurring Deposits is 0.116 which shows a low positive correlation. The significant value for Recurring Deposits is 0.222 which is more than 0.05 and shows that there is no significant relationship between Age and Recurring Deposits. Thus, the H03 is accepted. **H04 -There is no significant relationship between Age and Bonds:** The correlation table reveals that the Pearson’s coefficient value for the relationship between Age and Bonds is- 0.063 which shows a low negative correlation. The

significant value for Bonds is 0.511 which is more than 0.05 and shows that there is no significant relationship between Age and Bonds. Thus, the H04 is accepted. **H05 -There is no significant relationship between Age and National Pension Scheme:** The correlation table reveals that the Pearson's coefficient value for the relationship between Age and National Pension Scheme is -0.111 which shows a negative correlation. The significant value for National pension scheme is 0.244 which is more than 0.05 and shows that there is no significant relationship between Age and National Pension Scheme. Thus, the H05 is accepted. **H06 -There is no significant relationship between Age and Unit Linked Insurance Plan:** The correlation table reveals that the Pearson's coefficient value for the relationship between Age and Unit Linked Insurance Plan is -0.260 which shows a negative correlation. The significant value for Unit Linked Insurance Plan is 0.006 which is less than 0.05 and shows that there is significant relationship between Age and Unit Linked Insurance Plan. Thus, the H06 is rejected. **H07 -There is no significant relationship between Age and Liquid Funds:** The correlation table reveals that the Pearson's coefficient value for the relationship between Age and Liquid Fund is 0.097 which shows a low positive correlation. The significant value for liquid funds is 0.308 which is more than 0.05 and shows that there is no significant relationship between Age and Liquid Funds. Thus, the H07 is accepted. **H08 -There is no significant relationship between Age and Public Provident Fund:** The correlation table reveals that the Pearson's coefficient value for the relationship between Age and Public Provident Fund is -0.204 which shows a negative correlation. The significant value for Public Provident Fund is 0.031 which is less than 0.05 and shows that there is significant relationship between Age and Public Provident Fund. Thus, the H08 is rejected. **H09 -There is no significant relationship between Age and Senior Citizen Savings Scheme:** The correlation table reveals that the Pearson's coefficient value for the relationship between Age and Senior Citizen Savings Scheme is 0.103 which shows a low positive correlation. The significant value for Senior Citizen Saving Scheme is 0.278 which is more than 0.05 and shows that there is no significant relationship between Age and Senior Citizen Saving Scheme. Thus, the H09 is accepted

**Findings from the study-Demographic profile:** Majority of the respondents were from the age group of 18-25 years who are female respondents studied Post Graduation and are having their monthly earning as 10000-20000 and the majority are private sector employees. **Correlation Analysis:** The nine factors are extracted from the study and further tested by using correlation analysis with the Age. There is significant relationship between Age and Unit Linked Insurance Plan and Public Provident Fund, There is no significant relationship between Age and Fixed

Deposits, Mutual Fund, Recurring Deposits, Bonds, National Pension scheme, Liquid Fund and Senior Citizen Saving Scheme.

**Conclusions and Suggestions-** From the above findings it can be concluded that out of nine banking investment options features only two has an impact based upon Age category through correlation analysis .The expected value are higher than significance value so further the research has to conducted to find out the satisfied result and identify the current scenario in banking investment platform associated with risk and return aspects and the choice of preference of investment options by different individual investors portfolio.

### **SCOPE FOR FUTURE RESEARCH**

The study has limited to Efficiency on choosing Banking Investment options by SBI investors. There are more banking investment products and various banks offer different investment products to investors which can be extended to different dimensions and preferences for the study.

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## A STUDY ON ONLINE MARKETING- AFTER LOCKDOWN

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### ABSTRACT

Online marketing plays a vital role in the current economy. After the Lockdown this online marketing has created a wider market for business. When the Internet usage has increased the demand from the companies for Promotions, Advertisement has become mandatory for their field. However these options for both consumers and companies has continued exploring the online options. Their araised a Retailers and also the wholesalers in lump sum to catch the market. Everyone is surviving with a websites, home page etc. Enhancements in targeting advertising and Understanding how the market and websites maintaining their visitors have become relevant for the users. Due to the technologies available today and the Internet facilities provided by the various networks have become easier for the advertising and the promotions. The Internet is one of the most important tool for the companies, industries to brand their products and also used as a key for Marketing. We are in the world of connectivity were the number of mobiles phones, subscriptions, V-logs has outnumbered the world in Exploring. The number of text messages increases year-by-year, email and instant messenger programs set records each year. All of which points out that people are in need of being in contact with others. When the Internet connects people across oceans and continents, networking pages and blogs, forums and chat rooms are increasing every minute. Most people do not leave their home without their mobile phone, they are scared to miss anything, and want people to be able to reach them for an opinion. Customers are jumping on the chance to be heard in large audiences.

### INTRODUCTION

It is the fact that we have undergone the term Marketing and its substantial changes over the recent years, and the key role for the transformation has been played by internet. Internet "refers to the physical network that links computers across the globe. It consists of the infrastructure of network servers and wide area communication links between them that are used to hold and transport the

vast amount of information on the internet". It has been reshaped in different sectors for eg. Education Institutions, Hotels, Hospitals, Travelling, health, Medicine etc. "Information and communication technology, as it is now known, has come to play a key role in all elements of the marketing mix, and the new term recognizes the importance of communication in the interface between a business and its customers" (2004).

### **OBJECTIVES OF THE STUDY:**

- To define the meaning of online marketing
- To observe the online marketing environment
- To analyze advantages and disadvantages of online marketing after Lockdown

### **METHODOLOGY**

The methodologies that were used in this research are observation and survey methods. The author utilized the main advantages of the internet and conducted a research on online bases through different marketing forums, blogs and social websites. Depending on which methodological approach one chooses, the subject of study may change. People understand, explain, and improve businesses depending on the approach being used. The observation of variety of literature such as magazines, books, articles, journals etc. was used.

### **SCOPE OF THE STUDY**

It is related to understand the concept of Online Marketing, and to know the impact, that the outbreak of Covid-19 pandemic had/has on Online marketing and also understand the future of online marketing post Covid-19 pandemic.

### **LIMITATIONS OF STUDY**

- The study is limited to secondary data.
- Time constraints while collecting the secondary data.
- Generalization of all the data from this study is not preferable.

### **ROLE OF DIGITAL MARKETING**

It is a target specific. It means the brands and the marketers can target a specific segment of customer based on various factors, and also identify the channel of distribution for connecting with such customer base. Based on the traditional marketing techniques, digital marketing is also

interactive basically. The various social media platforms like Twitter, Face book, Instagram, Youtube etc., and A.I based technology like Chatbots incorporates marketing with customer feedback and enables for an interactive two-way communication between the company and the customer. Advertising through digital platform is very flexible and it can be customized according to the needs and requirements of various customer. It reduces the drawbacks and problems in advertising.

Covid-19 pandemic change the world socially and economically. Covid-19 pandemic shut down the world and stop the manufacturing of the product. Sale of products is decreasing because of social distancing and safety. Pandemic also affect the digital marketing growth but after understanding the customer buying behavior, Digital marketing can grow and play the important role for the society. Covid-19 changes the priority of human beings in the whole world. People are more careful with their health. This crisis changes the life socially, economically. People are living alone for following the social distancing. In this scenario digital marketing is playing important role for the society. Without going physically, anyone can bill, transfer money, and compare items through digital marketing. After covid-19, people will more conscious with safety, trust. So, through digital marketing, organization can approach the customers and provide the good service and product with safety and trust.

## **TOOLS FOR ONLINE MARKETING**

### **EMAIL MARKETING.**

It is a direct marketing channel that lets businesses share new products, sales, and updates with customers on their contact list. Its high ROI makes it crucial to most businesses' overall inbound strategy. Modern email marketing has moved away from one-size-fits-all mass mailings and instead focuses on consent, segmentation, and personalization. This may sound time-consuming, but marketing automation handles most of the heavy lifting for you. In the long run, a well-designed email marketing strategy not only drives sales, but helps build a community around your brand.

### **SOCIAL MEDIA MARKETING.**

Social media marketing is also known as digital marketing and e-marketing. It is the use of social media the platforms on which users build the social networks and share information to build a company's brand, increase sales, and drive website traffic. In addition to providing companies with a way to engage with existing customers and reach new ones, social media marketing has

purpose-built Information that allow marketers to track the success of their efforts and identify even more ways to engage. The capacity of social media in three core marketing areas: connection, interaction, and customer data.

### **SEARCH ENGINE OPTIMIZATION**

The process for improving the quality and quantity of Website traffic to a website or a web page from search engines. SEO targets unpaid traffic rather than direct traffic or paid traffic. Unpaid traffic may originate from different kinds of searches, including Image search, video search, academic search, academic search, news search, and industry-specific engines. In an Internet marketing strategy, SEO considers how search engines work, the computer-programmed algorithms that initiates search engine behavior, what people search for, the actual search terms or keywords typed into search engines, and which search engines are preferred by their targeted audience. SEO is performed because a website will receive more visitors from a search engine when websites rank higher on the search engine results page (SERP). These visitors can then potentially be converted into customers.

### **SEARCH ENGINE MARKETING**

Search engine marketing is a way to create and edit a website so that search engines rank it higher than other pages. It should be also focused on keyword marketing or pay-per-click advertising . The technology enables advertisers to bid on specific keywords or phrases and ensures ads appear with the results of search engines. With the development of this system, the price is growing under a high level of competition. Many advertisers prefer to expand their activities, including increasing search engines and adding more keywords. The more advertisers are willing to pay for clicks, the higher the ranking for advertising, which leads to higher traffic.PPC comes at a cost. Investors must consider their return on investment when engaging in PPC campaigns. Buying traffic via PPC will deliver a positive ROI when the total cost-per-click for a single conversion remains below the profit margin. That way the amount of money spent to generate revenue is below the actual revenue generated.

### **A/B TESTING & WEBSITE OPTIMIZATION.**

This testing is also known as split testing, refers to a randomized experimentation process wherein two or more versions of a variable (web page, page element, etc.) are shown to different segments of website visitors at the same time to determine which version leaves the maximum impact and drives business metrics. In A/B testing, A refers to ‘control’ or

the original testing variable. Whereas B refers to 'variation' or a new version of the original testing variable. The version that moves your business metric(s) in the positive direction is known as the 'winner.' Implementing the changes of this winning variation on your tested pages elements can help optimize your website and increase business ROI. The metrics for conversion are unique to each website. For instance, in the case of E-Commerce, it may be the sale of the products. Meanwhile, for B2B, it may be the generation of qualified leads.

### **CONTENT MARKETING.**

Content marketing is a strategic marketing approach focused on creating and distributing valuable, relevant, and consistent content to attract and retain a clearly defined audience and, ultimately, to drive profitable customer action. Instead of pitching your products or services, you are providing truly relevant and useful content to your prospects and customers to help them solve their issues. The benefits of content marketing are Increased sales, Cost savings, Better customers who have more loyalty, Content as a profit center.

### **CONCLUSION**

In the present scenario, digital/online is at the centre of attraction of all companies and Digital marketing is an essential tool in the hands of brands and marketers surviving in the society for implementing marketing strategies during the pandemic period. Meanwhile marketing in common, was drastically impacted, the Online platform for Marketing has been a tremendous boost. Covid19 has created Digital marketing as a paved the way for further development and enhancement of digital marketing activities.

## A COMPARATIVE STUDY BETWEEN SWIGGY AND ZOMATO FOR LEVEL OF CUSTOMER SATISFACTION

Mr. ASHISH KUMAR VERMA

Dr. VISHNU PRAKASH MISHRA

With the amelioration in technology, easily availability of internet has created a new trajectory for marketing and selling product through mobile based applications. India is rising at a fast pace where people of the country are using new generation of technology and innovations. The spread of internet based e-commerce industries in India has witnessed a high level of growth and opportunity especially in food delivery market is expected to expanding at a CAGR of 28.9% during 2022-2027. This study examines the satisfaction level of consumers with reference to Swiggy and Zomato. Contribution in Gig economy is very satisfactory. With the easily availability of smart phone and internet, placing online order for food in is trending now a days. Also these applications have made our life easier and simpler. Restaurants are also using these applications for promotions of their food and specialty. The most commonly used applications in this study are used and adopted for the research is Swiggy and Zomato. Customer base is continuous increase of these two applications. With reference to which an indeed research and study here is conducted to find the effectiveness of the application which creates the most positive image in the mind of the consumers and also customers satisfaction in terms of motivational factors while using these applications. In depth research is conducted based on survey on various aspects for the evaluation like easiness in ordering, availability of number of restaurant, hygiene, cash back, packaging etc. The aspiration of the study is to know the components that are influencing to customers in going online, their perceptions, positioning of various attributes in their mind and overall satisfaction towards online food delivery services. This research paper is going to be descriptive in nature. Also this paper presents the overall background of food delivery applications and procedure of ordering of food through food delivery applications.

**KEY WORDS:** Gig economy, cash back, online food delivery, customer satisfaction

## INTRODUCTION

With the emergence of internet, we could see India is growing at a rising pace. Young generation of the country are using latest technology and innovations. Ordering food from mobile which seemed to be impossible are now becoming possible because of the technological advancements. Now a days various kinds of businesses are shifting to online stores because of technology and availability of internet at a cheaper cost. Behind this lots of factors such as availability of smart mobile phone at a cheaper cost, and low cost of internet data packs, people have started using more of mobile phone apps. Food apps have made a lot of things convenient for the users as customers can order any time from their preferred restaurant.

Online food delivery is a process of food delivery, food taken from a restaurant or a cloud-based kitchen which is joint through a web page or mobile App. Mobile applications like Zomato, Swiggy. The customers can order food from their favorite restaurants, their choice of cuisines, can decide whether to get it delivered to pick up from the restaurant and can choose to pay from various modes such as cash on delivery, debit card, credit card, or any other mobile wallet. In today's busy scenario everyone is busy with their own schedules and duties especially in metro cities most of people are prefer order food online rather than going to the particular restaurant/hotel. Online food delivery applications are providing various discounts for attracting consumers. Both the application provides delivery services of food from restaurants to customers home or office or their preferred address of consumer. Delivery charges may be applied according to customers delivery address. Main benefit of ordering food online is food is available within particular time period without living our home.

## OBJECTIVE

1. To analyze the customer satisfaction level of the of Zomato and Swiggy
2. To know the preferences of customers while ordering food online.

## LITERATURE REVIEW:

**Pathan et al. (2019)** states that with online food ordering system, a restaurant and mess menu online can be set up and the customers can easily place order. Also with a food menu online, orders can be easily tracked, it uphold customers' database and develop the food delivery service. The restaurants and mess can even modify online restaurant menu and upload images easily.

**Kimes(2019)** said that The amount of increase in online food ordering is because of convenience and control. Almost half of the populations has ordered food online. Personal interaction with restaurant employees, satisfaction level of consumers after ordering food online and changed behavior of the consumers.

**J. Das(2018)** has studied, analyzed and compared the top 4 food delivery apps namely, Zomato, Swiggy, Foodpanda and Ubereats. Providing better discounts” and “better choices of restaurants”, Zomato is positioned at the top by the customers. Zomato is also positioned at the top by the customers.

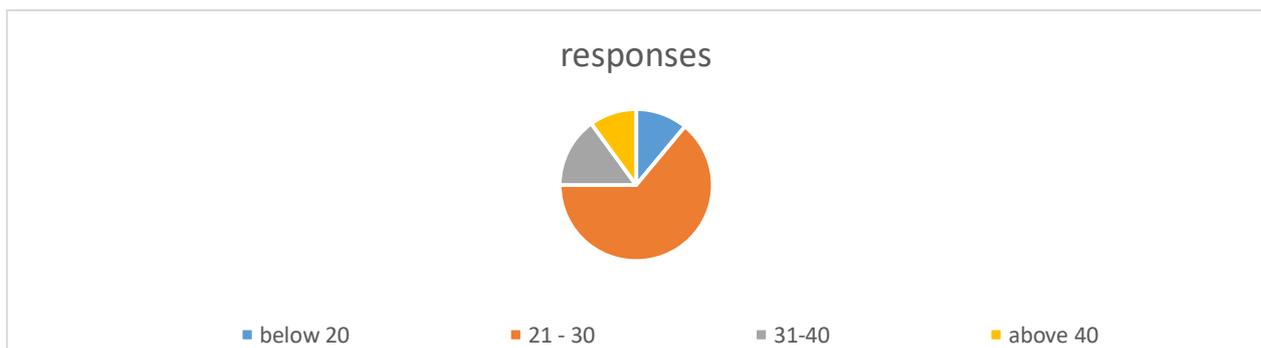
**RESEARCH METHODOLOGY**

Research design	:	Descriptive Research design
Sources of Data	:	Primary Data & Secondary Data
Data collection tools	:	Questionnaire
Targeted Population	:	Customer of online food ordering
Sample size	:	100
Presentation Tool	:	Pie Chart

**Data Interpretation**

**1) Profile of respondent**

Age	Number of responses
Age Below 20	11
21-30	64
31-40	15
Above 40	10

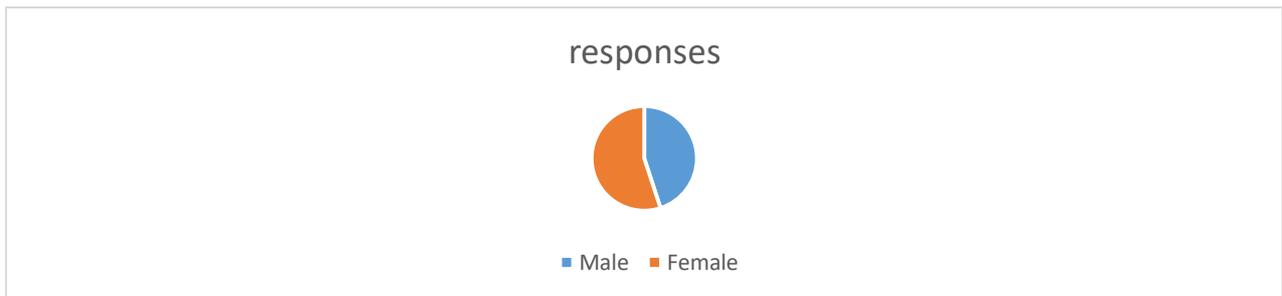


**Interpretation:**

Seeing the above pie chart, we can say that majority of user belongs to the age of 21 to 30.

**1) Gender of respondent:**

Gender	Number of responses
Male	45
Female	55

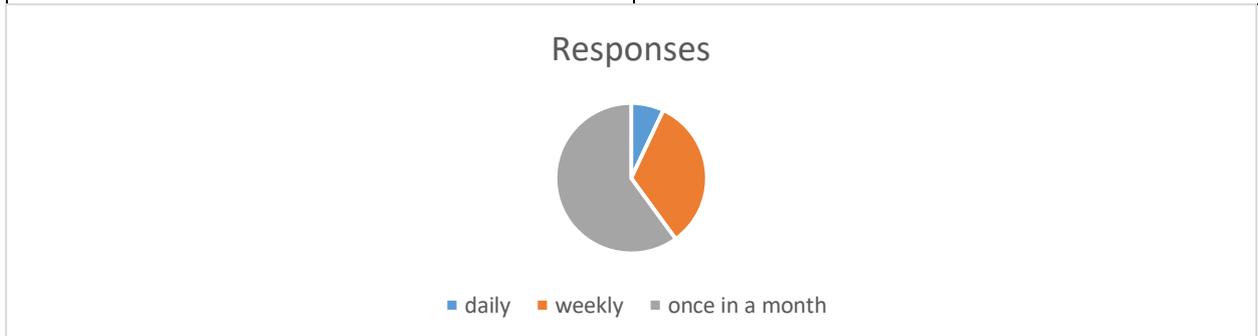


**Interpretation:**

By seeing above pie chart, we can say that female are using more food ordering mobile application than the male

**2) Frequency of order**

Order frequency	Number of responses
Daily	7
Weekly	33
Once in a month	60

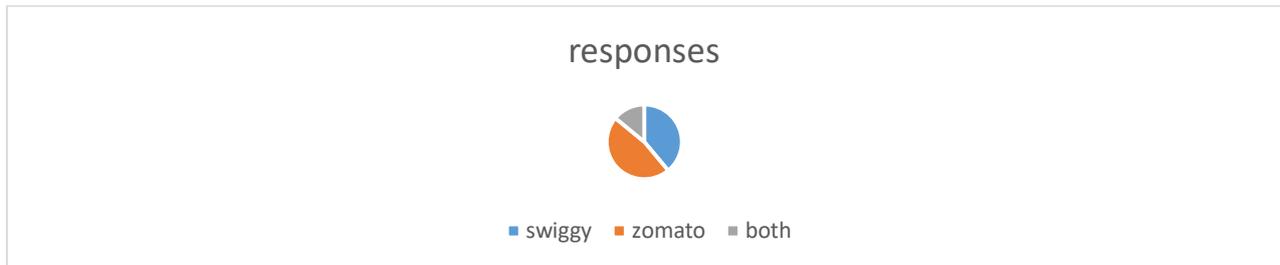


**Interpretation:**

By seeing the above pie chat, we can say that majority of people order once in a month

**3) Which is your favorite application while ordering food?**

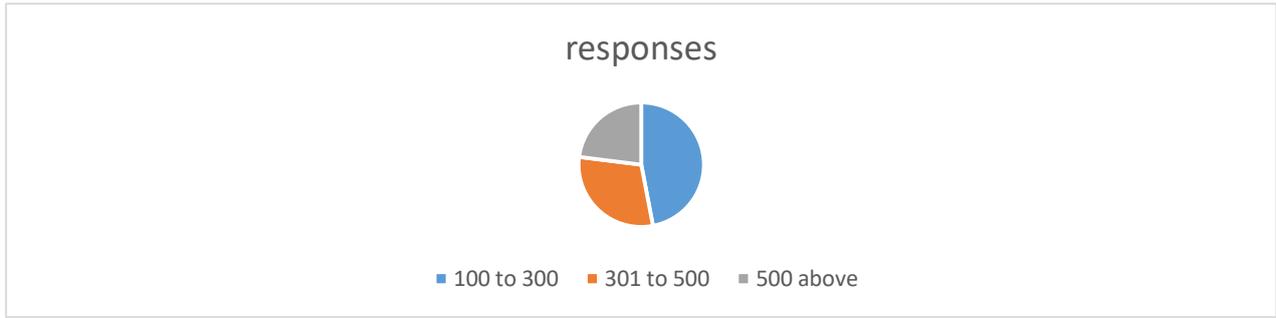
Online food order application	Number of responses
Swiggy	39
Zomato	47
Both	14

**Interpretation:**

Zomato is the most preferred mobile application while 14 people preferred both swiggy and Zomato

**4) Average amount of expenditure per order**

Amount of expenditure	Number of responses
100 to 300	47
301 to 500	30
500 above	23

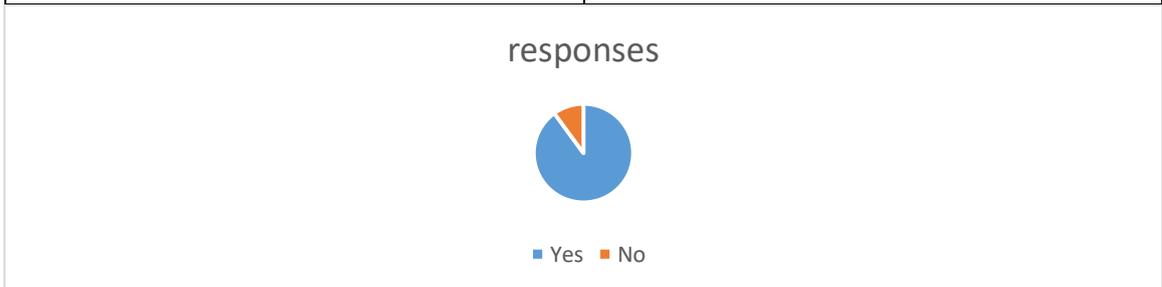


**Interpretation:**

By seeing the above pie chart, we can say that majority of people spend average amount of Rs. 100 to Rs. 300

**5) Do you influenced by the discount, cashback or delivery charges free provided by the application?**

Particular	Responses
Yes	90
No	10



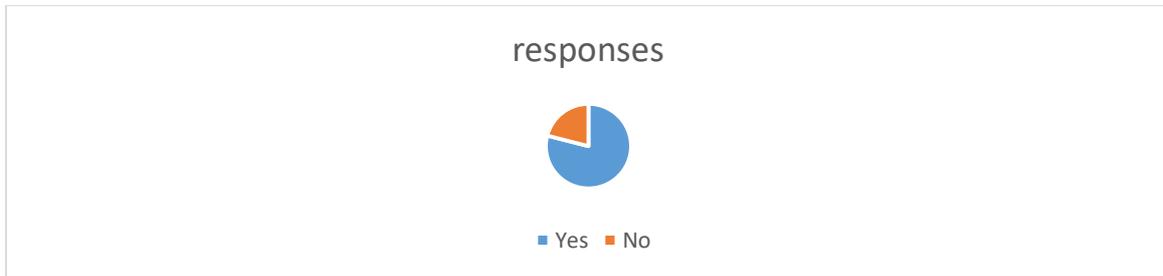
**Interpretation:**

Majority of people are influenced by the promotional scheme provided by the food ordering mobile application

**6) Are you satisfied by the delivery time taken by the food aggregators?**

Particulars	Responses
Yes	79

No	21
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### Interpretation:

Majority of people are satisfied by the time taken by the food aggregators to deliver food.

### FINDINGS

From the survey, we came to know that most of the customers who use the online food delivery application are young people. In today's world people preferred to order food online rather than dining outside. Out of 150 respondents 117 respondents are preferred ordering food online from the Zomato, 26 from Swiggy and 07 from others. From the above research paper we came to know that customers want more discounts from their preferred delivery applications.

### CONCLUSION

With the help of questionnaire this research concludes that lifestyles of people are very busy. Due to this reason people prefer to order food online. An online food ordering system is developed where the customers can make an order for the food and avoid the waiting in the restaurant. Using the application, users register online, read the E-menu card and select the food from the e-menu card to order food online. This application removes the need of a waiter or reduces the workload of the waiter. Therefore by using this application, the users can directly place the order for food to the chef online.

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## IMPLEMENTATION OF MUSCLE -VEIN THICKENING BY VALINE AMINO ACID USING CORRELATIVE FEATURE EXTRACTION

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### ABSTRACT

Health of an individual is the most crucial aspect during a person's living years. Various factors can initiate maladies that may prove to be fatal. However, amino acids although are defined to be essential consumables to a certain extent in the dietary habits of humans, their consumption beyond a limit can cause diverse ailments. The proposed study comprises of comprehending the Muscle-Vein (MV) thickness in a human body triggered by a specific amino acid called Valine. Previous work relevant to this domain of interest have been pivoted more toward muscle thickness through various other attributes such as age and genetic factors. Thus, the lack in identifying the rise in valine count correlated with the corporeal feature such as the total cholesterol in the proposed indagation through Spearman and Pearson correlation methods have augmented the feature priority identification, and subsequently the decision tree analysis. The simulations are carried out in orange datamining tool, and the results are successfully obtained.

**KEYWORDS:** Feature identification, Decision tree analysis, Muscle-Vein thickness, Orange tool, Pearson Correlation, Spearman Correlation, Valine amino acid.

### I.INTRODUCTION

An indispensable dimensionality of human livelihood rests with the health of an individual. The metabolism of human body is instrumental in maintaining the homeostasis, and the internal gut microbiota responsible for triggering the right hormonal balances [3]. The corporeal features such as the lipid profile assessments [14]

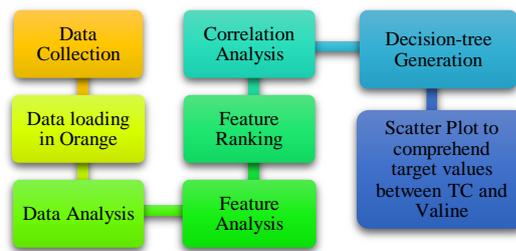
in a periodic manner can evince the various abnormalities and dysbiosis that may go undetected in an individual. Various studies have delineated the assimilation of essential amino acids (EAA) in excess can have an impact on the muscle mass in an individual [3], [16]. The recent civilization of the economy, and the lifestyle of individuals along with the food habits have triggered various lurgies and problems, that seems to be expanding. The WHO defines problems relevant to heart diseases, diabetes and obesity [13] to be burgeoning, with no specific panacea initiated to taper its outcome amongst the millennials. Diverse concomitants relevant to muscle mass and vein expansion have caused serious blood-flow obstructions, thereby leading to problems such as osteoporosis and sarcopenia [14]. The amino acids of different types are consumed usually along with the food that an individual takes, however valine when taken in the appropriate amount can be a potent inducer of the leucine hormone that plays a pivotal role in generating lean body mass. Nonetheless, its excessiveness can result in perilous and life-staking problems with its composition of being hydrophobic, glycogenic amino acid, and increasing the muscle growth. While it may be recommended, the presence of valine in foods is highly advised to be circumvented by pregnant women and small children due to its nature of increasing the function of kidney, thereby leading to severe health damages [1]. Reviews have proffered that the valine amino acid injected into mice [7] have created thickening of fibre levels, and thereby creating blocks obstructing the blood to flow through freely [3], [6].

The proposed study delineates the correlation that the increase in valine count in human body can have on the lipid profile attributes of an individual, and consecutively on the muscle mass. The total cholesterol is an attribute that determines the level of subcutaneous and visceral fat that an individual holds [14]. This parameter is an indictive of ensuring the health of an individual, and analyses the jeopardies that an individual can entail themselves into with respect to blood flow through veins, and from and to the heart. The discretion of categorizing the total cholesterol depends on the lipid count, where the desirable is fixed to any value below 200, while a value greater than 200 is considered to be under the umbrella of risks. The normal valine count on the other hand is any value fixed below 1.75mg for every 100mg of food, and any value greater is considered to be an excess that could be harmful. This indagation evinces the novel anatomization of divulging the trilateral correlation of total cholesterol, valine count and the muscle-vein expansion leading to associated ailments. The decision-tree along with correlative methodologies from Spearman and Pearson, along with explicit feature ranking mechanism implemented in orange data mining tool is an enlightenment in the health realm of an individual. The paper is structured with section II providing a glimpse of the empirical literature relevant to the proposed study, section III elaborates

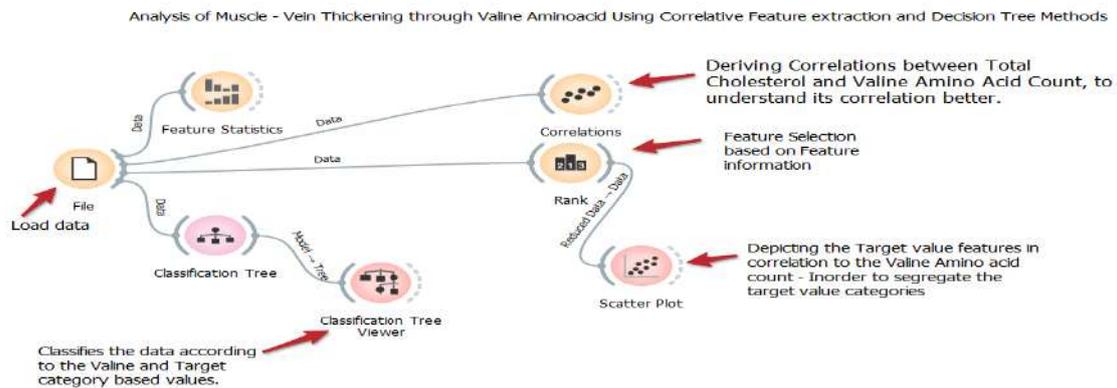
the methodology of the work implemented, with section IV illustrating the results obtained, and the final section delineating the conclusion and future work that could be implemented further.

## II. PROPOSED METHODOLOGY

This study entails the sequence of steps, with the database consisting of 250 patients, both men and women from the age group ranging from 18-75 years. The inclusions of subjects for the study pivoted to identifying the presence of valine in the human body, and its subsequent impact on the corporeal attributes along with the behavioral changes it can embody. The exclusion made for data collection corresponded to pregnant women, and patients with other relevant serious lurgies.



**Fig 1. Process Sequence**



**Fig 2. Illustration of Workflow implemented in Orange**

The explorative data analysis for the proposed study incorporates the dataset into the orange tool [9], [2], [4]. The visualization tool is effective in providing a complete statistic of the features, that comprises of the following mathematical formulae.

$$\text{Mean} = \frac{\sum_{A=1}^n M_A}{n}$$

(1)

Where n is the total number of values, and the summation of all values from its first till the nth value is divided to obtain the relevant mean value

$$\text{Median} = G \left( \frac{\frac{n+1}{2} - h_{k-1}}{n_k} \right) \times m$$

(2)

Where G is the lower boundary of the median, the division by 2 provides median value, with h providing the class frequencies, m computing the capacity of the class, with the cumulative divided by the total frequencies occurring.

$$D = R_{\max} - R_{\min}$$

(3)

Where D is the dispersion value obtained, R signifies the difference in the range of the maximum to the minimum value.

The correlations of between the attributes for the study have been obtained through the Pearson and Spearman methods [5].

$$PC = \frac{\sum(A-m(A))(B-m(B))}{\sqrt{\sum(A-m(A))^2(B-m(B))^2}}$$

(4)

Where PC represents the correlative coefficient, the computation takes into account two variables A and B, and sums up their value with their square root mean.

The spearman correlation is given by:

$$\rho = \frac{\text{cov}(R(m), R(n))}{\sigma(R(m), R(n))}$$

(5)

Where  $\rho$  indicates the Pearson correlative correlation applied to the rank variables, thereby rendering the Spearman correlation of the covariance (COV) and standard deviation ( $\sigma$ ) of the rank variables m and n.

The subsequent phases of the study entail the ranking of the features using the feature selection and prioritization methods proffered by the methods such as Information Gain, Gini index and Gain ratio [9]. ID3 algorithm is a pre-processor for enhancing the construction of decision-tree through explicit analysis of features that render the highest information. This algorithm entails the computation of entropy [8], but can hold a relative amount of bias toward the gain in information. A potential augmentation to the ID3 algorithm is the gain ratio that evades bias, thereby enhancing the accuracy quotient of the attributes that hold highest information. The Gini Index in the orange tool, employs the CART mechanism to obtain enhance the precision of ranking further. The decision tree algorithm [11], thus utilizes these ranked features to construct the root attribute and its subsequent branches. The entropy index [10], and the information gain is considered the evaluators of discrimination between the various classes that the tree can possibly grow.

### III. RESULTS OBTAINED

The indagation yields the following outcome simulated through the orange tool, and the datamining concepts. The various parameters taken for the study entails the TC value from the lipid profile, age, gender, height, weight, valine deposition and the Muscle-Vein thickness relevant to the accumulation of valine, and the TC value.

The result generated from computing the mean, median, dispersion range, the minimum and the maximum value of the various parameters taken for the study. This statistical viewing aids in understanding the obtained data with respect to the various variables, and the pattern it may hold. The MV thickness parameter is chosen as the target attribute for uncompromised accuracy to be delivered in relevance to the study.

	#	Info. gain	Gain ratio	Gini
Valine		0.9867269812059613	0.4933974783538368	0.42081867741935486
TC		0.5032775729010284	0.2516678353867298	0.2016615085408746
Age		0.03771264353128756	0.018881915654489084	0.018495105476673546
No		0.018397706060692798	0.009199065375747426	0.00899680081925247
W(kg)		0.017416540451547613	0.00870847124661056	0.005420763952893037
H (m)		0.009212296277289589	0.004609013213581469	0.0031559696969698514
GEN	2.0	0.0008131539270959109	0.001301767309874516	0.00028756057844214755

**Fig 4. Feature Selection and Ranking according to Information gained.**

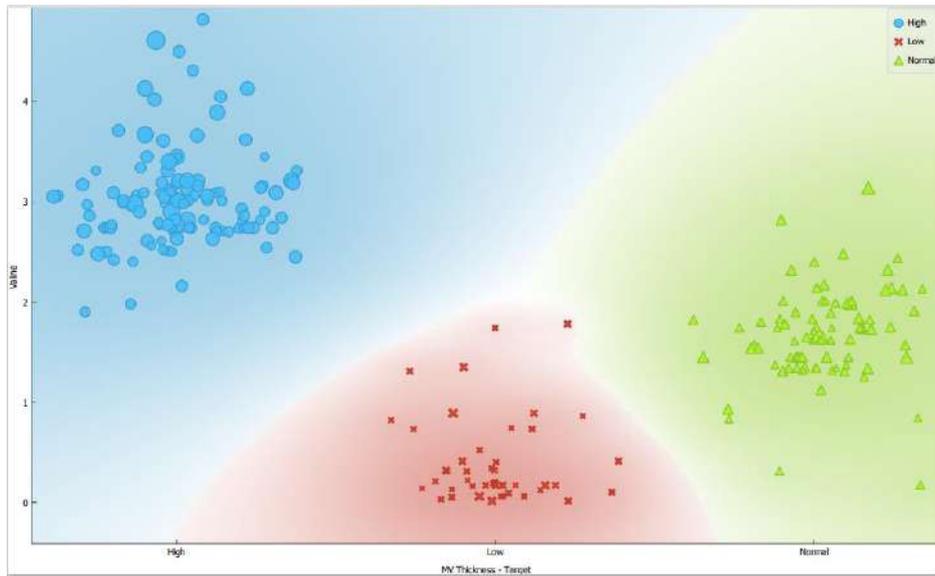
Figure 4 evinces the processing of attributes for the purpose of obtaining the information gained from each of them. The study takes into account three types of feature selection methodologies that aid in explicating the best score from each of the parameters. This process therefore ranks the variables in order to optimize, and make a facile effort toward the process of decision-tree construction. Information gain, Gini index and Gain ratio collectively portrayed that the priority of parameters should be ranked with the valine count having the highest, followed by total cholesterol count and the age of the individual.

Pearson correlation				Spearman correlation			
1	+0.726	TC	Valine	1	+0.732	TC	Valine
2	+0.153	Age	TC	2	+0.146	Age	TC
3	-0.109	No	TC	3	-0.121	No	TC
4	-0.078	TC	W(kg)	4	-0.060	TC	W(kg)
5	-0.017	H (m)	TC	5	-0.032	H (m)	TC

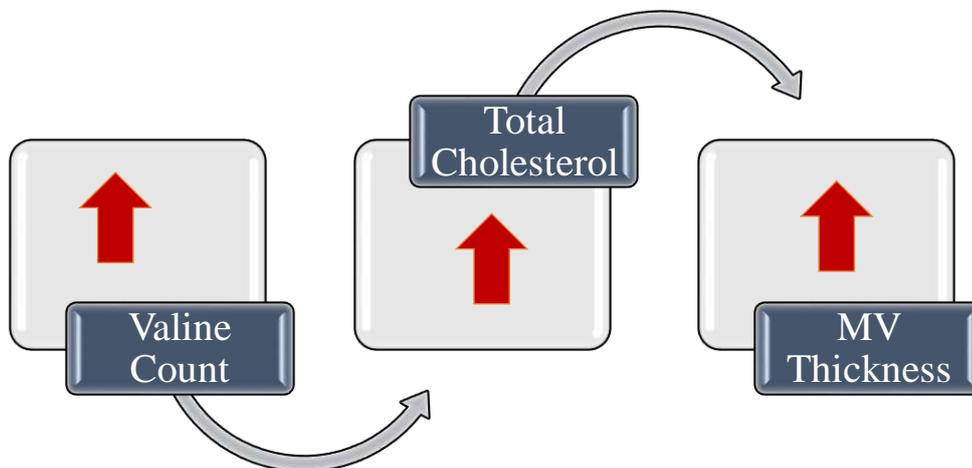
**Fig 5. Correlation Coefficients obtained between the attributes taken for the study**

The Pearson and Spearman correlation methods illustrated in figure above, and proffered by the orange data mining tool is a correlative process that ensures to signify the highest value of dependency and close-bound formation of two parameters. This study evinces that both the methods incorporated explicates the highest correlative binding between the total cholesterol and valine value, followed by the total cholesterol value relevant to its age.

Figure 6 illustrates the plotting of the target value with the correlative valine count to identify those points that lie in the low, normal and high range. This classification of low, normal and high can be indicative of osteoporosis and sarcopenia when the stratified range is low, with the balance well maintained in the normal range of values.

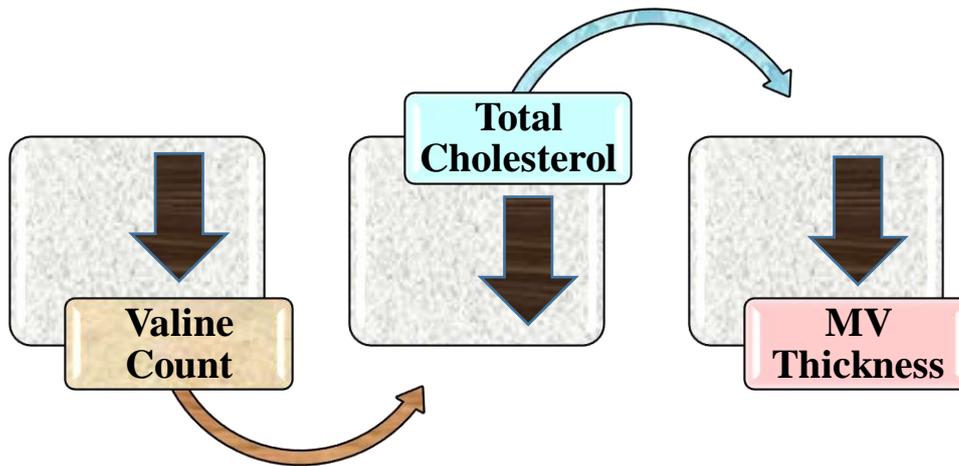


**Fig 6. Scatter Plot Depicting the Correlation between Valine and MV-Thickness**



**Fig 8. Inference of higher bound deposition**

The inferences made from the study in relevance to upper and lower bound depositions are explicitly illustrated in figure 8 and 9, with the MV thickness being a dependent factor on the valine segmentation and the total cholesterol count of the individual.



**Fig 9. Inference of lower bound deposition**

## V. CONCLUSION

The proposed study delineates the high degree of correlation that the corporeal parameter total cholesterol holds with the valine amino acid deposition in the human body. Thus, indicating the outcome of escalated muscle-vein thickening that can be causative to several diseases like heart attack, diabetes, osteoporosis and sarcopenia. The indagation also evinces through the statistical analysis that when the count of valine deposition is higher, there is a direct influence on the total cholesterol parameter of the individual. Hence, this simulative study unambiguously depicts that, the higher valine with higher TC subsequently escalates the muscle vein thickening. The future work can be instituted to comprehend the stratification method relevant to this domain of muscle-vein detriment severity, thereby helping in identifying the associated patterns of ailments that may arise.

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## TO EXAMINE THE IMPACT OF INNOVATIVE ADVERTISING TECHNIQUES WITH REFERENCE TO MCDONALD'S

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### ABSTRACT

All types of businesses are increasingly reliant on advertisements to promote their products and services to the public. It is true that "it is impossible to fly the plane of achievement without fueling it with advertising." Ads are becoming an effective method of consumer communication to disseminate information in an emotional or value-based context to capture the customer's attention, sell, or create consumer confidence, ultimately influencing a consumer's purchasing choice. Companies spend a substantial amount of money and time, advertising their products in print media, broadcast media, the internet, and other media. To increase the effectiveness of advertising, corporations are focusing more on how to create advertising techniques, how to express the message creatively, which method to employ, and what type of pitch to make. Companies strive to include in their advertisements those components that attract the customer's attention, increase the customer's interest in the product, generate a desire for the product, establish the customer's conviction in the product, and encourage the customer to purchase the product.

Furthermore, client satisfaction is crucial to a company's success. Since the 1970s, it has been studied in business and marketing. When client happiness is attained, brand loyalty is frequently the result. The objective of this study is to determine how advertising techniques influence customer behavior and to investigate the relationship between the two.

Thus, the focus of this research is on gaining an awareness of the advertising techniques implemented by McDonald's to have a greater impact on the minds of customers through advertisements and offering some new approaches for the same.

The study employed a quantitative approach and a survey research design. To reveal how diverse advertising methods were created to influence consumer behavior.

**KEYWORDS:** McDonald's, consumer buying behavior, ad effectiveness, advertising techniques, fast-food chain restaurant, and the influence on consumer buying behavior.

## 1. INTRODUCTION

In the category of fast-food restaurants, McDonald's is the global leader in hamburgers. It reaches over 6.9 billion people every day in around 100 countries via 35 million locations. **Richard Mac Donald** and **Maurice McDonald** launched a tiny restaurant in **1940** with a restricted menu consisting of burgers, chips, and drinks. **In 1955, Ray Kroc** joined the company as a franchise agent and created **McDonald's system Inc.**, the predecessor to the McDonald's corporation. He had a distinct outlook on life and business, focusing on providing high-quality, uniformly prepared food. His idea was founded on the concept of a stool with three legs.

- The first leg consisted of McDonald's franchisees.
- The second of McDonald's suppliers.
- The last of McDonald's employees.

McDonald's operating system stipulated that all franchisees must adhere to the company's basic principles of quality, service, cleanliness, and value. According to the operating system, each ingredient was examined, tasted, and refined to ensure quality. The corporation derives its revenue from rent, royalties, franchisee fees, and restaurant sales. With alterations in consumer preferences, the business continually expands its menu. It serves hamburgers, french fries, cheeseburgers, soft drinks, wraps, milkshakes, smoothies, fruit, desserts, and seasoned fries, among other items.

As a result of the high availability of substitutes on the market today, competition has intensified, forcing corporations to pay enormous sums in advertising their products to consumers. However, the question arises as to whether they are on the right track. Are they employing the proper advertising strategy and making the proper pitch?

Therefore, McDonald's began adopting various advertising strategies to increase the sales of its products, as a failure of the ad and a wastage of money would result if the company did not target the right people with the right message, the right media, the right target audience, the right approach, and the right appeal.

The following are the aspects that are of utmost importance in framing the McDonald's innovative advertisements:

➤ **Advertising Strategy: "What McDonald's wishes to convey"**

McDonald's has a large advertising strategy that targets young Indian adults since they know that today's youth influence family purchases. The expansion of enterprises and call centers boosted the youths' spending power.

McDonald's also focused on Indianizing itself while preserving most of its western characteristics to gain appeal in India. For eg. The cow is a revered animal in India, hence McDonald's doesn't serve beef Big Macs here.

The company used all forms of communication, including television, radio, the newspaper, the internet, brochures, free presents (such as balloons for children), billboards, and signage, and supports athletic events with television being the most important advertising medium among all other channels.

Thus, McDonald's tried to portray through its commercials that it is a location for young people, both in terms of price and the things supplied. Furthermore, it implied that McDonald's is the only place where customers can acquire affordable, high-quality cuisines of their choice.

➤ **The Big Ideology: It refers to "communicating the message creatively."**

McDonald's has conducted several advertising campaigns in India, all of which have centered on distinct but connected topics.

- a. **McDonald's mein hai kuch baat. (1996– 1999):** McDonald's initiated this promotion upon entering the Indian market. Through this, they hoped to persuade and attract the Indian audience to try their food by highlighting the welcoming atmosphere McDonald's restaurants offered their consumers. The emphasis of the advertisement was "Apna jahan tumne paya... McDonald's mein mann muskaya... McDonald's mein hai kuch baat".
- b. **Toh aaj, Mmmmmmmmm! McDonald's ho jaye. (1999–2003):** This campaign lasted for a considerable amount of time. McDonald's was establishing itself as a brand in the minds of Indians during this time. This campaign includes further campaigns such as "Today's menu: what's for dinner?" This promotion was launched to introduce the new menu items at McDonald's.
- c. **I'm loving it (present):** In 2003, Mc Donald's Agency Heye & Partner, a member of the DDB Worldwide communications group, launched the first "I'm loving it" branding

campaign. It was designed for the younger demographic. McDonald's rolled out its new packaging internationally in 2009 and revamped its menu boards with darker but warmer colors and more realistic photographs. Essentially, it was developed to reinforce the magic that McDonald's had already built in the minds of consumers by highlighting the company's beloved old and new goods.

➤ **Strategic Approach: It implies “How to communicate a message”**

McDonald's has always adopted a consumer-oriented approach. It began with a brand-building method and later on, moved on to a general approach with its slogan of “I'm lovin' it”.

When McDonald's came to India, it primarily focused on urban upper-class people but today it has positioned itself as an affordable place to eat for anyone. The restaurant ambiance and calming music accentuate the relaxation that McDonald's promises in its slogan like “You deserve a break today” and “Feed your inner child”. This devotion of McDonald's to providing food quality, and a hygienic, and relaxing atmosphere translated into a strong relationship of the corporation with its customers.

➤ **Appeal: Most of the advertising of McDonald's have a pleasant and emotional appeal**

- a. **“McDonald's mein hai kuch baat” (emotional appeal):** This ad portrays a toddler who can't talk on stage and is forlorn. The friendly setting and his favorite toys at McDonald's help him restore his confidence.
- b. **“Happy price menu choice hai na” (pleasant appeal):** This commercial shows a group of friends wanting to go to lunch. Their pal gives the treat. The person is initially bewildered, but he's glad to have the "McDonald's ka happy pricing menu" option. In another ad, a little boy and girl deepen their friendship by sharing a Mc Aaloo Tikki.
- c. **"McDonald's Mc veggie twist" (humor Appeal):** This commercial illustrates a person's mistake between McVeggie and McVeggie Twist. McVeggie ya McVeggie Twist appeals to customers.
- d. **"Masala Grill- Pakka Indian Hai" (pleasant appeal):** This ad campaign emphasizes grilled and spicy Indian food. One commercial shows a father lending his kid money to take his girlfriend out.
- e. **Saucy wraps (pleasant appeal):** This ad shows individuals eating Indian-flavored wraps. "McDonald's ken aye saucy wraps...khayega to gayega" is the catchphrase.
- f. **"Aaj menu mein very good morning hai" (pleasant appeal):** This commercial features a young girl who takes her mother out to breakfast to relieve her of her obligations. The ad

shows the daughter and mother's emotions. "International breakfast at McDonald's includes hash browns and muffins"

- g. **"McDonald's Grilled Chicken Royale" (pleasant appeal):** This ad targeted workers. The ad shows how grilled chicken and veg royale burger calms people down. "This menu is extraordinary." "McDonald's ka grilled chicken royale...so filling". Customers were attracted by these punchlines.
- h. **"McDonald's double fest" (pleasant appeal):** "One is oye...two is oye teri" McDonald's uses this catchy line to market their double-patty burgers. The ad shows people's joy when they receive something extra. They feel the same excitement and joy when trying McDonald's new double patty burger.

## 2. REVIEW OF LITERATURE

The purpose of this investigation is to find an answer to the question of whether or not advertising affects the decisions and acquisitions made by consumers. To accomplish this, a total of 67 articles from both domestic and foreign publications were analyzed to demonstrate that, even though the relationship between advertising and consumer behavior can be hard to predict, the influence of advertising on consumer behavior is still highly subjective and cannot be generalized. **(Oluwabunmi A. Falebita and Christopher F. Ogunlusi, 2020)**

This research paper examines the effect of advertising on consumer purchasing behavior. This survey study was conducted in 2019, with a sample size of 100 respondents; the harmony advertising agency was the advisor for this study. The study demonstrates that creative and well-executed advertising always has a significant impact on customer purchasing trends and behavior. Similarly, celebrity endorsement has a significant impact on customer purchasing behavior. Therefore, the study concludes that all of these factors have a beneficial effect. **(Naitik Rajeshbhai Kabarwala, 2019)**

## 3. RESEARCH OBJECTIVES

- To evaluate how advertising strategies adopted by McDonald's effects consumer behavior.
- To understand how the advertising strategies employed by McDonald's have a larger impact on the minds of customers with reference to Indian preferences.

- To examine the connection between advertising and consumer behavior.

#### **4. STATEMENT OF THE PROBLEM**

The marketing sector places a significant emphasis on consumer behavior since customers make purchasing decisions continuously. In my investigation, I've focused exclusively on McDonald's to demonstrate to the participants how the company has managed to get an understanding of numerous facets of how innovative advertising can influence consumer purchasing behavior.

#### **5. SCOPE OF THE STUDY**

The purpose of this study was to investigate the impact that McDonald's marketing strategies have on consumer behavior in India and how they are influenced by such strategies.

#### **6. RESEARCH METHODOLOGY**

A research study was undertaken by selecting 100 respondents as a representative sample. The study utilizes both primary and secondary data. This study's research methodology combines structured and unstructured methods.

##### **➤ PRIMARY DATA**

- This study's primary data collection approach consisted of a questionnaire with a variety of survey-type questions concerning the impacts of McDonald's advertising strategies on consumer behavior.
- The sample size is 100, consisting of male and female respondents between the ages of 18 and 40 years and above, and their responses were analyzed to reach results to examine the varied effects of advertising on a consumer's purchasing choice.
- The results acquired by the well-structured questionnaire were compiled with all relevant advertising and consumer behavior details in mind with the help of close-ended questions.

##### **➤ COLLECTION OF DATA**

- The questionnaire was presented directly to the respondents using scheduling and survey techniques.
- The respondents were both men and women who had varied food choices.

### ➤ **SECONDARY DATA**

- It has been compiled from a variety of sources, including books, journals, newspapers, magazines, and food & marketing websites.

### ➤ **SAMPLING DESIGN**

- The current research examines the effect that advertising has on the purchasing decisions of consumers based on the responses of 100 individuals who were selected using a process known as simple random sampling. These individuals are located all over India.

### ➤ **LIMITATIONS OF THE STUDY**

- Few people did not respond to the questionnaire.
- A number of responders lacked expertise regarding certain subjects.
- Inadequate prior research studies on the subject that have been conducted.

## **7. FINDINGS**

- A majority of the respondents belong to the younger population between the ages of 18 and 25 years respectively. Given that the majority of respondents are part of the younger generation, the vast majority of them fall under the category of students.
- Additionally, the study reveals that a substantial fraction of the sampled population favors McDonald's over any other fast-food chain restaurant.
- The most desired and favored product among consumers is French fries, followed by the Mc Aaloo Tikki burger.
- When it comes to the most favored element, a high proportion of the sampled population favored McDonald's emphasis on product diversity to influence their customers' buying decisions.
- In comparison to the other services given by McDonald's, respondents favored combo meals.
- When it came to advertising tactics most of the respondents were of the view that McDonald's did an excellent job by resorting to social media promotion as a large portion of the population belonged to the younger age category.
- Another major component that this study conveyed was that a major portion of the respondents believed that the main reason for them to patronize the brand was the delicious

food it had to offer to its consumers along with the convenience to locate the fast-food chain easily.

- The study also depicts how most of the respondents think that the most important factor in evaluating a fast-food chain is the flavor of the meal prepared according to the consumer's tastes.
- To sum it up a major portion of the selected population believe that McDonald's is capable of becoming the world's No.1 fast-food chain restaurant.

## 8. RECOMMENDATIONS

Thus, it is evident from the research that McDonald's has achieved great success in the Indian market, owing to its adaption of Indian culture in its menu and advertising efforts, this is achieved by keeping in mind the following suggestions:

- McDonald's realized the potential of Indian youth and hence targeted them in a variety of advertisements in a highly innovative and effective manner.
- Mc Donald's must also focus on attracting customers with its "Happy price menu" promotion, to aim squarely at middle-class families, adolescents, and youth.
- Consequently, McDonald's advertising strategy must be elevated to an entirely new level by reviving the "I'm lovin' it" theme through the use of uplifting and positive content.
- In addition to digital advertising, emphasis must also be placed on digital and internet advertising, as these are the fastest-growing areas at present. It must also encourage blogs and newsrooms that explore and project good opinions toward McDonald's along with new packaging and a little change in surroundings.
- It must focus on how it can increase word-of-mouth from customers as it is an integral component of an advertising strategy that helps reinforce a strong brand image.
- Another recommendation would be to boost the number of inventive print advertisements that expand India's customer base because films are a major and influential form of entertainment in India to increase the frequency of inventive and appealing print adverts.

## 9. CONCLUSION

Advertising is the foundation of a prosperous business. Through advertisements, people can be made aware of a new product, encouraged to acquire it, reminded of its presence, and reaffirmed regarding their purchase. Today's advertisements have a significant impact on our daily life as advertisements determine what we buy, what we wear, what we use, and how much we pay for a product, among

other things. In order for a product's advertising campaign to be successful, it is crucial to identify the product's target market before launching a campaign. McDonald's has conducted several advertisements, each of which has targeted a specific demographic and thus proven to be significantly more effective.

Through slogans such as "Apna jahan tumne paya... McDonald's mein mann muskaya... McDonald's mein hai kuch baat", "Masala Grill- Pakka Indian Hai", "Aaj menu me kuch special hai....ka McDonald's grilled chicken royale...so filling it's satisfying", and "One is oye...two is oye teri," it combines emotive, pleasurable, and humorous appeals to efficiently target its customers.

McDonald's success in India can be attributed to its use of effective segmentation, targeting, and positioning techniques, as well as its willingness to adapt its menu totally to local tastes. It's advertising also has an Indian flavor and highlights the Indian way of life, thereby appealing to the target market. To keep McDonald's from declining, the "I'm lovin it" marketing must be taken to the next level.

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# SYNCHRONIZATION OF PERCEPTION, PREFERENCE AND PERSEVERANCE TOWARDS BANCASSURANCE AMONG THE MILLENNIALS

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## ABSTRACT

Bancassurance is the newest revolution in the insurance industry as the banks rely on them as an additional source of return. Banks are equally competing with the generic insurance agencies with respect to the general and life insurance. This study aims at studying the major attributes relating to the bancassurance – perception, preference and perseverance focusing on the pertaining relationship between these attributes to study the millennials. This study explores on the reliability of the synchronization of the three major attributes to study its effect on the choice of bancassurance. A descriptive study design and a simple random sampling method is utilised to study the attributes of the respondents in the Chennai City. A Self-designed structured printed questionnaire with scored using a Five - Point Likert scale is used to record the responses. However, through study it is found that the perseverance towards bancassurance have a significant relationship with the gender.

**KEYWORDS:** Attributes, Bancassurance, Perception, Perseverance, Preference

## INTRODUCTION

India is known to be the youngest nation amongst the world countries with over 400 million citizens representing millennial population. With the growing changes in the technology, millennials have a greater impact on the bancassurance industry as they form the major class of working population too. Because they base their sense of financial security and investment around it, the insurance industry is likewise forced by the generation's changing lifestyle to some degree personalizing its offerings. The impact of the COVID-19 was shown to be the main factor in this generation's increased awareness of the benefits and outcomes of owning insurance policies.

Keeping in concern about the family welfare as well as the leisure finances, millennials opt for insurance in a more careful manner. As concerned with the perception, preference and the perseverance, the people of this generation are studied to be keen on risk-prone investments, claims and reassuring solutions. There are numerous different insurance policies, but they can be essentially split into two categories life insurance and general insurance. Only a select few insurance providers are established and affluent due to the increasing degree of policy customization to the needs of the customers.

## REVIEW OF LITERATURE

**Preeti Kulkarni (2022)** states that Due to its disproportionate reliance on the agency-led distribution mix, Life Insurance Corporation (LIC) may experience difficult times in terms of growth as the bank channel for the distribution of savings products and digital channels for retail protection excel in the field of bancassurance.

**Yadav, Ruchika. (2020)** states that the Millennial generation's preferences' level of sophistication shifts from performance evaluation to adaptability value sought through adoption and use Likewise, whether social media, trust, and the perception of enjoyment play important roles in Millennials' attitude toward behaviour and desire to use insurance.

**Tian, Xiaoguang & Prybutok, V.R. & Mirzaei, Fouad & Dinulescu, Catalin. (2020)** reveals that the Millennial generation's preferences' level of sophistication shifts from performance evaluation to adaptability value sought through adoption and use Likewise, whether social media, trust, and the perception of enjoyment play important roles in Millennials' attitude toward behaviour and desire to use insurance.

**Chattopadhyay, Ayan & Pandey, Amit (2019)** stated that "Core" and "Assurance" are the two main determining variables shaping how millennials are perceived. Quasi insurance policies appear to have less of an impact on each of these indicators, which calls for improvement.

**Varghese, Jissa (2018)** claimed that Bancassurance enables banks to broaden the assortment of services they deliver and elevate the amount of levied income. Insurance companies see bancassurance as a way to increase their market share and premium turnover. Bancassurance is seen as a win by the customer due to the discounted prices, superior products, and personalised service.

## RESEARCH GAP

The previous studies were focused on the millennial generations' awareness towards bancassurance and their choice of specified form of insurance based on its popularity. The earlier studies that focused on insurance knowledge didn't take into consideration the challenges posed by perception, preference and perseverance. The understanding of bancassurance buyers depends on the complexity of the plan and the ease at which it is to obtain it in relation to the cost, which is the major emphasis of this study. This study also emphasises the urban population, which is made up of both working- and lower-class individuals of the millennial generation.

## STATEMENT OF THE PROBLEM

When engaging millennials with insurance services, awareness is the secondary problem. The generation has easy access to information from reliable sources and is frequently open to recommendations and opinions that may well aid them make a well-informed decision. However, insurance companies do not offer individualised insurance services that satisfy their clients' demands; instead, they frequently take a broad view. The major types of insurance, including life insurance and general insurance, offer insights for sharpening focus and understanding the missing components of the insurance sector. The major view towards acquiring a bancassurance that supports their lifestyle and sustain the process throughout is still a challenge.

## OBJECTIVES

To identify the interrelationship with respect to perception, preference and perseverance in bancassurance among the millennials.

## HYPOTHESES FOR THE STUDY

H<sub>01</sub>: There is no significant relationship between gender and perception towards bancassurance.

H<sub>02</sub>: There is no significant relationship between gender and preference towards bancassurance

H<sub>03</sub>: There is no significant relationship between gender and perseverance towards bancassurance.

## Research Design

<b>Table 1 – Research Methodology</b>	
Research Design	Descriptive Study
Sampling Method	Simple Random Sampling
Sampling Area	Chennai City

Sampling Size	112
Research Instrument	Self-designed structured printed questionnaire with scored using a five - Point Likert scale
Collection of Data	Primary data- questionnaire; Secondary data- Journals, articles, web blogs, Reviews
Period of Study	November 2022 – January 2023
Statistical Techniques	Reliability Analysis, Correlation analysis
Statistical Tools	SPSS 21 software
Source: Compiled by the Authors	

## DATA ANALYSIS AND INTERPRETATION

### Gender

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	54	48.2	48.2	48.2
	Female	58	51.8	51.8	100.0
	Total	112	100.0	100.0	

Source: Primary Data Analysis

### Interpretation:

Table 2 shows that 48.2% of the respondents were male, and 51.8% of them were female respondents, for this study.

### Age

		Frequency	Percent	Valid Percent
Valid	25 – 30	14	12.5	12.5
	30 -35	88	78.5	78.5
	35 – 41	10	8.9	8.9
Total		112	100.0	100.0

Source: Primary Data Analysis

**Interpretation:**

Table 3 shows that 12.5% of the respondents belonged to the age group of 25 – 30, while 78.5% of the respondents belonged to the age group of 30 -35 and rest of the 8.9% of respondents belong to the age group of 35 – 41, which is the last category with respect to the millennials.

**Reliability Analysis**

<b>Table 4 - Reliability Statistics</b>		
Cronbach's Alpha	N of Items	N of Cases
.863	29	112
Source: Primary Data Analysis		

**Interpretation:**

The Cronbach's Alpha was found to be 0.863 for the questionnaire consisting of 29 items on a 5-point Likert scale included under the variables of perception, preference and perseverance. The data reliability score alpha is 86.3 % which is at an acceptable level. Any value above 0.75 is considered to be reliable. Hence, the questionnaire has high level of internal consistency and thus reliability. The validity of the questionnaire is also established and checked.

**Correlation Analysis:**

<b>Table 5 – Correlations</b>					
		Gender	Perception	Preference	Perseverance
Gender	Pearson Correlation	1	-.086	-.097	-.225*
	Sig. (2-tailed)		.368	.307	.017
	N	112	112	112	112
Perception	Pearson Correlation	-.086	1	.436**	.421**
	Sig. (2-tailed)	.368		.000	.000
	N	112	112	112	112
Preference	Pearson Correlation	-.097	.436**	1	.316**
	Sig. (2-tailed)	.307	.000		.001

	N	112	112	112	112
Perseverance	Pearson Correlation	-.225*	.421**	.316**	1
	Sig. (2-tailed)	.017	.000	.001	
	N	112	112	112	112
<b>H<sub>0</sub> Accept/Reject</b>			<b>Accepted</b>	<b>Accepted</b>	<b>Rejected</b>
*. Correlation is significant at the 0.05 level (2-tailed).					
**. Correlation is significant at the 0.01 level (2-tailed).					
Source: Primary Data Analysis					

**Interpretation:**

**H<sub>01</sub>: There is no significant relationship between gender and perception towards bancassurance.**

The correlation table reveals that the Pearson's coefficient of correlation value for the relationship between gender and perception is 8.6%, which indicates a negative low correlation between these variables in the bancassurance availing process. Thus, the null hypothesis H<sub>01</sub> is accepted.

**H<sub>02</sub>: There is no significant relationship between gender and preference towards bancassurance.**

The correlation table reveals that the Pearson's coefficient of correlation value for the relationship between gender and perception is 9.7%, which indicates a negative low correlation between these variables in the bancassurance availing process. Thus, the null hypothesis H<sub>02</sub> is accepted.

**H<sub>03</sub>: There is no significant relationship between gender and perseverance towards bancassurance.**

The correlation table reveals that the Pearson's coefficient of correlation value for the relationship between gender and perseverance is 22.5%, which indicates a negative moderate correlation between these variables in the bancassurance availing process. Thus, the null hypothesis H<sub>03</sub> is rejected.

**FINDINGS FROM THE STUDY**

**Demographic profile:** Majority of the respondents were from the age group of 30-35 years. Though there is a close balance in the gender ratio, female respondents were in majority.

**Reliability Analysis:** The reliability analysis proved to the validity of the questionnaire and the mentioned variables contribute to the study in the most fulfilling manner with 86.3% of reliability.

**Correlation Analysis:** Further, the three attributes are tested by using the correlation analysis with Gender. There is a significant relationship between gender and perseverance but there is no significant relationship between gender and perception and preference towards bancassurance among the millennials.

## CONCLUDING OBSERVATION AND SUGGESTIONS

Bancassurance bases its operations on two main tenets: improving the channel of distribution and maximizing profit margins. Millennials exercise the impacts of purchasing power through effective financial management, which encourages them to foresee insurance plans designed precisely for their needs. The decision to purchase insurance and the sources of information have a significant determining role in the synchronization of the perception, preference, and perseverance of bancassurance. It is concluded that perseverance is a crucial element because gender has a significant impact around how prolonged insurance policy last.

## SCOPE FOR FUTURE RESEARCH

Since the advent of digital banking modes, customers do not reach banks directly. Though insurance schemes are available through the virtual mode to reach the customers directly, the awareness and the benefits that the customers seek are not synced always. Since the study is focused only on the millennial generation, it can be extended to the varied age class focusing on multiple factors relating to bancassurance.

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# A STUDY ON THE IMPLEMENTATION OF ARTIFICIAL INTELLIGENCE FOR CUSTOMER RELATIONSHIP MANAGEMENT

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## **ABSTRACT**

Customer relationship management (CRM) is a strategic approach for controlling an organization's connections with its current and potential customers (CRM). Artificial intelligence (AI) is capable of analysing vast volumes of data on its own. The integration of AI with just an existing legacy CRM system in a business-to-customer (B2C) relationships makes sense given the immense growth potential of an AI-integrated CRM system. The purpose of this study is to comprehend how AI will affect customer relationship management. The challenges that firms face while using AI, as well as how it is done.

**KEYWORDS:** Artificial intelligence, customer relationship management, business to consumer relationship, tools of AI, challenges.

## **INTRODUCTION**

Artificial intelligence is one branch of computer science which aims to build intelligent machines. In recent years, the use of artificial intelligence technologies has become increasingly important across numerous industries. To look at it another way, artificially intelligence is the ability for computer programmes to reason and learn.

Customer perception is just a person's assessment of the products or services that are being provided to or advertised for him. The customer perception cycle or process is the sequence of events that begins when a consumer receives product information & ends when they form an opinion about it.

Although recent positive learning experiences using AI have divided customers' perspectives, The majority of clients think that the Artificial intelligence system may advance society. According to a survey of Global Independent, 61% percent respondents believe that the development of artificial intelligence will result in a better society, whereas 22% believe the opposite, indicating that people believe AI will improve society.

Both the risk of failure and growth depend heavily on the customer experience. Data insight is the fundamental tool for enhancing the consumer experience. But customer behaviour is disorganised, and customer experience databases are a little dirty. The guidelines are hazy, and there are no clear criteria for success. Customer experience datasets were typically a challenge for developers of AI

systems. However, this problem is precisely the reason why AI forgot how important the user experience is. Call centre representatives, salespeople, and those in other customer-facing roles are unable to fully understand a customer's background and their own perceptions.

#### **REVIEW OF LITERATURE:**

**Gutha Jaya Krishna and Vadlamani Ravi (2016)**, studied about the evolutionary computing applied to customer relationship management through a survey. Articles published over the years from 1998 to 2015 was studied which had relationship with applying EC techniques to CRM. The main areas that were considered for the study was fraud detection, sentiment analysis, direct marketing, customer segmentation and so on. They concluded that solving CRM tasks was possible mainly due to EC.

**Bin Nashwan, Haslinda Hassan (2017)**, conducted a systematic review through papers published in various conferences over the period of 2005 till 2015 on the topic impact of customer relationship management on customer satisfaction and loyalty. A total of 35 papers was considered for this. The main reasons that affect the relationship between CRM and customer satisfaction and loyalty was identified by them.

**Suman Kumar, Varsha Deb, Ruchi Jain (2018)**, did empirical research on the topic artificial intelligence- creating automated insights for customer relationship management. To evaluate consumer awareness, effectiveness, and loyalty regarding AI-enabled tools, researchers have settled on five tools. Researchers used a survey-based study methodology and gathered primary data using a Google form. Following data analysis, researchers discovered that consumers are aware of the AI-enabled tools, that all of the products under consideration are efficient, and that consumers are also devoted to the tools.

**Sanjay Mohapatra, Ajit Kumar (April 2019)**, has worked on various literatures available on artificial intelligence and has tried to develop a framework for adopting artificial intelligence. Their main focus was on banking sector after studying literatures and found there were no much case studies on the same. They developed a framework to understand where AI can be implemented and where it cannot.

**Niharika Mishra, Sushanta Mukherjee (August 2019)**, together has studied the impact of artificial intelligence on customer relationship management of amazon in particular to Bangalore. In conclusion, Amazon's artificial intelligence does play a significant role in maintaining relationships with its customers by offering dependable services that keep them as clients for a longer period of time. The artificial intelligence-based user interface was deemed to be user-

friendly, organized, effective, appealing, and educational to the clients, and the online payments performed online are also thought to be reliable.

**J. Sasiganth, S. Raeshma (December 2019)**, has conducted a study based on madras city region about customer perception to artificial intelligence. They have focused to understand the perception, attitudes and satisfaction of customer towards artificial intelligence. It is more of descriptive in nature. As per the study there is a positive relationship between the three aspects that they have focused upon and artificial intelligence.

**Yahia Baashar, Hitham Alhussian, Ahmed Patel (April 2020)**, has again done a literature review on customer relationship management system in the area of healthcare. In this work, they sought to review, classify, summarise, synthesise, and evaluate CRM studies in the healthcare sector. Their findings also showed that no robust theoretical framework was applied, and that only organisational and technological elements were studied using a quantitative method (such as a survey).

**Sheshadri Chatterjee, Bang Nguyen, Suman Chaudhri (September 2020)**, conducted an empirical study of Indian organizations about adoption of artificial intelligence integrated CRM system. The study was able to pinpoint various exogenous and endogenous factors to forecast the adoption of an AI-integrated CRM system in Indian enterprises. This study has been able to theorise how the two attitudinal belief structures, such as UTA and HEA, acting as two mediating factors, may increase the applicability and viability of the model.

**Priyanka Meena, Praveen Sahu (2021)**, has done a detailed academic literature review on customer relationship management. They in detail studied about all the possible research papers published over the last 21 years. This literature review article's goal is to consolidate and categorize previous CRM research so that academics and practitioners can access it in a structured and concise manner.

**Sheshadri Chatterjee, Ranjan Chaudhuri, Demetris Vrontis (April 2021)**, has researched on the topic of adoption of artificial intelligence integrated CRM systems in agile organizations in India. The study emphasizes how organizational agility supports the growth of exploitative and explorative competencies and boosts current capacities for the rise and successful implementation of AICS in firms for competitiveness. The model seems to have fared better than the competing allied models in explaining the variation in organizations' adoption of AICS.

**Vinoth S, Preetha Chandran (January 2022)**, has come out with a case study on Artificial intelligence and transformation to the digital age in Indian banking sector. Their study showed that AI has been applied in the banking sector in areas like core banking, operational effectiveness,

customer support, and analytics. In the Indian banking sector, chatbots and robotics are frequently utilized applications, while machine learning algorithms are also used in domains like KYC, financial transfers, fraud detection, etc.

**Christina Ledro, Anna Nosella, Andrea Vinelli (February 2022)**, conducted a detail literature review based on various articles published in the Scopus database. They have identified CRM as a strategy, process or information system. This study defines and describes three subfields that influence and define this literature in the CRM domain: Big Data and CRM as a database, AI and ML approaches applied to CRM operations, and strategic management of AI-CRM integrations.

## RESEARCH METHODOLOGY

Statement of the problem:

The age of artificial intelligence is the one we are currently in. How well has AI been integrated into customer relationship management across diverse industries? We'll also concentrate on the primary AI technologies and the difficulties that organisations confront in the process.

Scope of the study:

This research paper focuses on analysing previous studies from the last seven years to determine how artificial intelligence research has advanced for efficient customer management.

Methods of data collection:

The data used in this research study is entirely based on secondary data. Various research papers were downloaded from research gate and google scholar.

Objective of the study:

5. To identify the progress of research in the field of AI for CRM.
6. To identify the prominent tools of artificial intelligence used by businesses.
7. To understand the implementation of AI across various sectors
8. To bring out the challenges faced by organisations in the process of implementing AI.

Limitations of the study:

5. This study is only based on the secondary data.
6. Only 12 research articles are considered.
7. This paper was written within a time span of 25 days.

8. There was no much information received about AI for CRM for education and other sectors.

Findings and interpretation

### **IMPLEMENTATION OF AI:**

The researcher has discovered from the literature review that corporate organisations and AI developers fully believe that AI would enhance the CRM. As everyone is aware, several companies are already using AI to provide better services to their customers. Millions of dollars are being invested in the study and development of AI tools by both industry and academic institutions. Whether they are informed of it or not, customers are using AI-enabled solutions, and they are starting to notice the effects of AI on their surroundings.

This is being used by not only our business world but also the healthcare industry and online retailers like Amazon to improve their consumer relationships. Customers are growing more familiar with Amazon due to a variety of factors, such as its user-friendly design, ease of payment, one-click shopping, vast selection of goods supplied, and automated suggestions based on customer searches on their website. By offering dependable services to its clients and retaining them as clients for an extended period of time, Amazon's artificial intelligence would play a significant role in preserving relationships with the clients. Numerous case studies have been investigated, and frameworks have been established to aid enterprises in implementing AI effectively. To cut costs, boost productivity, boost security, and improve customer experience, banks and financial institutions are implementing AI technologies such cloud computing, blockchain, machine learning, APIS, and robotics. The majority of the big, international banks are using AI in their back offices and front-facing interactions with customers.

### **MAJOR TOOLS OF AI:**

6. Tools for recommending products: It is a prediction software. This software anticipates consumer shopping behaviour, enabling businesses to suggest goods that will appeal to their target market. This application is widely used by Amazon, Netflix, and Uber.
7. Bots - Also known as web robots, interactive agents, etc. It is a real-time, intelligent interaction tool that businesses use to offer better customer service. It employs a powerful Natural Language Processing (NLP) system and self-learns. It generates recommendations while processing trillions of bytes of data in milliseconds. Among the few instances of bots are Google Assistant,

Alexa from Amazon, Siri from Apple, etc. The most popular bots that are used by or being implemented by numerous businesses are chatbots.

8. **Speech Recognition Tool:** Using AI technologies, this programme turns spoken words into text. The newest applications use IBM Watson's Input technology, which accepts client speech and produces results in text or graphic format. This application is now heavily utilized by chatbots. Bots are growing more intelligent and intelligent. Francesco Corea said that business models based on bot-to-bot communication will soon be available. This indicates that bots will communicate with one another to answer and filter the customer's questions and deliver the necessary solution.

9. **Visual perception:** The newest technology offered by AI is for visual perception. Now, photos and films may be recognised and identified by computers. These tools are made available to customers by businesses like Clarifai.com, Thehive.ai, Google, Facebook, etc. for picture search.

10. **Text analysis and Email:** One of the most recent and crucial ideas after big data is text analysis and email, often known as text mining. It falls under the umbrella of an AI subfield called Natural Language Processing (NLP).

#### **CHALLENGES IN IMPLEMENTING AI:**

6. **Lack of qualified human resource:** The biggest challenge is a shortage of qualified human resources; the current workforce is uninformed about the newest technology and applications.

7. **High costs:** The development and maintenance costs of AI were quite high and intricate. To keep up with the needs of a changing environment, AI is composed of sophisticated software and programmes that must be updated frequently.

8. **Quality of data set:** Businesses are very concerned about any risk brought on by unverified data. Examples include the risks of deploying an AI system for KYC compliance if the data source is unreliable.

9. Security and storage: Applications of AI use a large amount of data to make wise conclusions. Utilizing enormous volumes of data might provide storage constraints and data-driven automation can raise data security issues.

10. Trust on AI: Adoption of any new idea necessitates a high level of confidence in it. Many banks, companies, clients, and customers still hold fears about AI. AI is unreliable, especially in the banking and fintech sectors where there is money involved.

## CONCLUSION

Because of growing artificial intelligence research, forecast accuracy will increase. As AI technology develops, AIs will eventually replace humans in predictive roles. Humans will then be responsible for making decisions which AIs won't be capable of foreseeing. These choices typically involve unusual use cases for which algorithms were inappropriate. These evaluations can be based on morality, artistic originality and aesthetic sensibility, spiritual and emotional intellect, or the capacity to clarify difficult tasks and procedures. Finding people who can make fresh, responsible judgements will be important in order to develop consumer touch points and involve staff in various decision-making activities (requiring ethical judgement).

AI technology may be trained using a vast amount of existing data. Corporate must adopt a better data eco-system with data governance, use cases that reflect business values, analytic technology and tools workflow integration, and a culture that is ambidextrous in the workplace. It has been observed that even when the organisation implements technology, the management of an organization still feels uncertain about whether the expected results will be realised. A poor design process and a deficient information processing system are typically to blame for this. In order to overcome this constraint and avoid any unexpected and undesirable complications when utilising the latest tech, the staff must obtain enough training. This point of view holds that a technology revolution can either help or hinder an organization's ability to implement a new system.

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## GREEN TECHNOLOGIES FOR BANKING SECTOR – A SPECIAL REFERENCE TO GREEN BANKING SYSTEM

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### ABSTRACT

Today due to technologies advancement of the world economy is major challenges, the challenges for climate, energy and financial constraints. The banking sector for mostly important resources and global consideration for Indian banking sectors. In order for banking services at technologies based services to customers, financial system is the remedy for achieving the technologies. The present study is considered to green technologies for banking sector, to consider that green banking system for reached for customers in Madurai district. The banking sector for promotes the green technologies at adopting customers perception and usage of green banking system. The study aims at exploring the leading banking sector in India, secondly at different process available in the green technologies in the banking sector. The present study results at customers reached for green technologies in banking services, customer's usage different process at banking services problems, perception and future scope of green banking system.

**KEYWORDS:** Green Technologies, Green Banking System, Customer perception, Usage of Green Technologies, etc.,

### INTRODUCTION

The Finance sector of an economy forms the backbone of the country. It has a direct impact on the country's economic growth and development. However in order to achieve sustainability in economic growth the philosophy of Environmentalism plays a very crucial role. Therefore, with increasing environmental concerns both at national and global level; it has become important for the finance sector to become responsive to these environmental issues. This gave rise to the concept of Green Finance which is an innovation in the field of finance.

Green Finance thus involves making investments in environmentally sustainable products and projects which aims at reducing or avoiding greenhouse gas emissions, controlling industrial

pollution, water sanitation, waste management and overall biodiversity protection. It also includes green investments.

However, the green banking system approach that Indian banking sector from each at green technologies each other as they are in different phases of green marketing on the basis of their approach toward Environmental sustainability. The existing literature in this area emphasizes upon the role of Green Banking in promoting environmental sustainability through its eco-friendly initiatives and practices.

## REVIEW OF LITERATURE

**Chitra and Gokilavani (2020)**, in this article entitled on “**Green Banking Trends: Customer Knowledge and Awareness in India**” conducted that Indian initiatives and adoption by various banks towards green banking in India. Adoption of green banking practices will not only be useful for the environment but also benefit in greater operational efficiencies, minimum errors and frauds, and cost reductions in banking activities. They highlighted that awareness level is right in all the three types of top-performing Public, Private and Foreign Banks; however, the knowledge level is good at Foreign Banks, moderate in Private Banks, and Public Banks. But the fact is other banks have to increase both the awareness and knowledge level towards Green Banking. Though there are a lot of steps taken by the government and banks to provide a Green environment through Green Banking, there is a need to create awareness about green banking and its varied services. Her conclude this study Banking system will be a mutual benefit across various parties involved, including the nation. The Government rightly understood the importance of the Banking system and how it can impact the nation as a whole.

**Mohammad ahusan Ullah (2020)**, in this article entitled on “**Green Banking in the Way of Sustainable Development: An Overview of Practice and Progress in Bangladesh**” dealt with to evaluate the practice and progress of the activities of green banking in the way of sustainable development of study area. Green banking is regarded as sustainable banking, which has a role to safeguard the planet from environmental degradation, with an aim of ensuring sustainable development. It comprises the choices that take sustainability into account. The study shows that banking in Bangladesh is to the diversification phase passing through the intensification and foundation phases. It is progressing steadily. He observed that A truly green bank will reduce their carbon footprint by building more efficient branches, implementing energy-efficient operational procedures, offering transportation services for their employees, promoting sustainable banking and increasing their lending in environment-sensitive industries. It is necessary for organizations to

attain sustainable competitive advantage by creating eco-friendly products. Banks can protect themselves as a socially and ethically oriented organization by disbursement of loans merely to those organizations, which has environmental concerns. He conclude this study set mandatory rules and regulations for investment on green banking for all banks and they are bound to follow them strictly. This should be established considering that going green or practicing green banking and encouraging green projects will increase the brand value of banks which in turn will make them recognized globally.

### Objectives of the study

- To know the green technologies in the banking sector
- To study the customers perception of green banking system
- To understand the green banking usage and problems faced at customer in green technologies

### Research Methodology

This research paper is based on the following methodology in which primary and secondary data is used from customers through interview schedule at 80 customers. The secondary data from articles, research papers, annual reports, bank's websites, etc., the sampling techniques at conveniences sampling methods used. Data analysed for simple percentage analysis and garret ranking methods.

### Limitation of the study

This present study at data collection at only for Madurai district, sampling at the very low level of strength of customers.

### Data Interpretation and Discussion

This present study at 'Analysis and interpretation' deals with analyzing the information (or) data collected in order to come to a better conclusion. This is the aim of any research. The data collected are tabulated in understandable way for analysis.

**Table 1**

		<b>No. of Respondents</b>	<b>Percentage</b>
<b>Gender</b>	Male	26	32.5%
	Female	54	67.5%
<b>Age</b>	Below 30	40	50.0%
	31 – 40	25	31.2%
	41 – 50	11	13.8%

	Above 51	4	5.0%
<b>Area</b>	Rural	21	26.2%
	Urban	38	47.5%
	Semi Urban	21	26.2%
<b>Banking Sectors</b>	Public Sector Banks	52	65.0%
	Private Sector Banks	28	35.0%
<b>Customer's Usage of Green Technologies</b>	Below 1 Year	14	17.5%
	1 – 2 Years	31	38.8%
	2 – 4 Years	17	21.2%
	Above 4 Years	18	22.5%
<b>Mode of Usage in Green Technologies</b>	Credit Card	13	16.2%
	Debit Card	39	48.8%
	E – Wallet	3	3.8%
	Internet Banking	25	31.2%

#### Sources: Primary Data

The table says about the gender of the respondents. The gender of the respondents is divided into 2 groups. They are: Male and Female. Among the 80 respondents, **32.5%** of the respondents are Male and the remaining **67.5%** of the respondents are Female. It is evident that the majority of 54 respondents (67.5%) are Female.

The age of the respondents. The age of the respondents are divided into four groups. They are: below 30 years, 31-40 years, 41-50 years, above 51 years. Among the 80 respondents, **50.0%** of the respondents are below 30 years, **31.2%** of the respondents are between the ages of 31-40 years, **13.8%** of the respondents are in the age group of 41-50 years, and remaining **5.0%** of the respondents are in the age group of above 51 years. It is clear that the majority of 40 respondents (50.0%) are in the age group of above 51 years.

The Area of the respondents. The Area of the respondents are divided into three groups. They are: Rural, Urban and Semi urban. Among the 80 respondents, **26.2%** of the respondents are from rural areas, **47.5%** of the respondents are from urban areas, and the remaining **26.2%** of the respondents are from Semi urban areas. It is evident that the majority of 38 respondents (47.5%) are from urban areas.

The customer prepare that says about banking sector of the respondents which is divided in to two categories. They are; private sector and public sector. Among the 80 respondents, **65.0%** of the respondents are having their bank account in public sector bank and remaining **35.0%** of the respondents are having their bank account in private sector bank. It is evident that a majority of 52 respondents (65%) are having their bank account in public sector bank.

The years of usage of customer regarding green technologies in banking sector of green banking system. It is divided into 4 groups. They are below 1 year, 1-2 years, 2-4 years, and above 4 years Among the 80 respondents, **17.5%** of the respondents are using green technologies in banking sector of green banking system below 1 year, **38.8%** of the respondents are using green technologies in banking sector of green banking system between 1-2 years, **21.2%** of the respondents are using green technologies in banking sector of green banking system between 2-4 years and **22.5%** of the respondents are using the green technologies in banking sector of green banking system above 4 years. It is evident that a majority of 31 respondents (**38.8%**) are using the green technologies in banking sector of green banking system for 1-2 years.

The mode of using green technologies system it is divided into 4 groups. They are: credit card, debit card, E – Wallet and internet banking. Among the 80 respondents, **16.2%** of the respondents are using credit card, **48.8%** of the respondents are using debit card, **3.8%** of the respondents are using E - Wallet, **31.2%** of the respondents are using internet banking. It is evident that the majority of the respondents 39 (48.8%) are using the mode of debit card in green technologies system.

### **Rank for the factors motivating the using green technologies in banking sector of green banking system**

**Table 2**

<b>S. No</b>	<b>Factors</b>	<b>Mean score</b>	<b>Rank</b>
1.	Privacy	47.76	6
2.	Security	43.08	8
3.	Easy to use	60.03	2
4.	Time saving	67.76	3
5.	Immediate confirmation	73.29	1
6.	Pride & image	44.04	7
7.	Availability(24*7)	55.39	4
8.	Accepting the small payment	53.14	5

**Sources: Primary Data**

8<sup>th</sup> rank is given to the security and the mean score is 43.08.

7<sup>th</sup> rank is given to the pride & image and the mean score is 44.04.

6<sup>th</sup> rank is given to the privacy and the mean score is 47.76.

5<sup>th</sup> rank is given to the accepting the small payment and the mean score is 53.14.

4<sup>th</sup> rank is given to the availability (24\*7) and the mean score is 55.39.

3<sup>rd</sup> rank is given to the time saving and the mean score is 67.76.

2<sup>nd</sup> rank is given to the easy to use and the mean score is 60.03.

1<sup>st</sup> rank is given to the immediate confirmation and the mean score is 73.29.

The Table reveals that Garratt mean is high (**The first rank is**) in immediate confirmation with a total mean of **73.29**. The **second highest ranking** is given to the easy to use with a total mean of **60.03** and the **third rank** is given to the time saving with a total mean of **67.76**.

**Problems faced while using green technologies in banking sector of green banking system****Table 3**

S. No	Statement	Total	Mean score	Rank
1	Lack of security	320	4.00	1
2	Lack of awareness	301	3.76	2
3	Lack of trust	298	3.73	3
4	Registration	280	3.50	4
5	Refund of money	260	3.25	6
6	System hangover	273	3.41	5
7	Slow internet speed	257	3.21	7

**Sources: Primary Data****Weighted average**

**Inference:** The reveals that weighted average is high (**The first rank is**) lack of security with a total mean of **4.00**, The **second highest ranking** is given to the lack of security with a total mean of **3.76** and the **third rank** is given to the lack of trust with a total mean of **3.73**, the **fourth rank** is given to the registration with a total mean of **3.50**, the **fifth rank** is given to the system hangover with a total mean of **3.41**, the **sixth rank** is given to the refund of money with a total mean of **3.25** and the **last rank** is given to the slow internet speed with a total mean of **3.21** with the help of weighted average tool.

## FINDINGS AND SUGGESTIONS

- ✓ It is evident that the majority of 54 respondents (67.5%) are Female.
- ✓ It is clear that the majority of 40 respondents (50.0%) are in the age group of above 51 years.
- ✓ It is evident that the majority of 38 respondents (47.5%) are from urban areas.
- ✓ It is evident that a majority of 52 respondents (65%) are having their bank account in public sector bank.
- ✓ It is evident that a majority of 31 respondents (38.8%) are using the green technologies in banking sector of green banking system for 1-2 years.
- ✓ . It is evident that the majority of the respondents 39 (48.8%) are using the mode of debit card in green technologies system.
- ✓ That Garratt mean is high (The first rank is) in immediate confirmation with a total mean of 73.29. The second highest ranking is given to the easy to use with a total mean of 60.03 and the third rank is given to the time saving with a total mean of 67.76.
- ✓ The first rank is lack of security with a total mean of 4.00, The second highest ranking is given to the lack of security with a total mean of 3.76 and the third rank is given to the lack of trust with a total mean of 3.73, the fourth rank is given to the registration with a total mean of 3.50, the fifth rank is given to the system hangover with a total mean of 3.41, the sixth rank is given to the refund of money with a total mean of 3.25 and the last rank is given to the slow internet speed with a total mean of 3.21 with the help of weighted average tool.

## SUGGESTIONS

- ✓ The information about the benefits and usage of green technologies in banking sector of green banking system is to be informed to all the people in variety of age, gender and income of the respondents.
- ✓ When comparing with the rural people the urban professionals are more in using green technologies in banking sector of green banking system. Efforts should be made to inform the rural customers towards using green technologies in banking sector of green banking system.
- ✓ The professionals using green technologies in banking sector of green banking system must be aware of the charges, interest, and other additional service charges while using the green technologies in banking sector of green banking system and must compare with other banks to reduce the expenses towards the use of green technologies in banking sector of green banking system.

## CONCLUSION

Green technologies in banking sector in India is partially emerging in India among the consumers. Customers are selected in this study as they are very familiar with modern banking and innovative practice of buying through online mode and digital mode of payments in this study an attempts it's made to fine perception of customers towards green technologies in banking sector of green banking system and this study observes and the customers towards green technologies in banking sector of green banking system and this study observes and the customers in urban area (or) very familiar with green technologies in banking sector of green banking system. However, their very careful their make purchase with lesser amount than on higher value.

The green technologies in banking sector of green banking system must be floated among all segments of the society as it is going to be the future of India.

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## **AN OVERVIEW OF CHALLENGES FACED BY THE HUMAN RESOURCE DEPARTMENT WHILE IMPLEMENTING DIGITALIZED ENVIRONMENT AND ITS EFFECTIVE USAGE.**

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### **ABSTRACT:**

Human Resource Department is the back bone of all the organization in order to provide good employees and also forecasting the needs and requirements for the future growth. Owing to the modernized environment most of the organization moved to digitalized environment in order to have effective and centralized data. The work process of the HR digitalization is required nowadays because of huge manpower handling and to provide better work environment for the employees. During covid-19 most of the employees started work from home mode in order to monitor and to achieve the organization performance digitalized form of application and software helps at all levels. In spite of various module the Human resource department have faced various issues in handling the work flow since the adoption towards new culture to the employees are become challenges in the same way. In this paper we are discussing the problems encountered by the HR department while implementing Digitalized Environment.

### **INTRODUCTION:**

Human Resource Management is the art of doing Procurement, development, Compensation; Integration in maintenance of Human Resource in an Organization but in today's environment digitalization & modernization has become mandatory in order to have consistent on growth aspects. During Covid-19 most of the organization preferred a digital plat form to perform their day today activities some organization recruited through online mode.

In India Companies like ICICI, Tata Consultancy Service, Wipro and few more companies and all banking sectors had move forwarded in documenting the employee's details through digital

format. The Human Resource Department play a vital role in bringing all the administrative work in to digital. The software like SAP and Enterprise Resource Planning are more helpful to the human resource department, but the challenges of implementing the entire administration is more difficult for all the Human resource employees since its management oriented and more cost effective.

As a Challenges a rapid technological development and the forced transformation of business models and work design, organization are forced to bring the massive change for clear and define and management processes. To be able to drive future organizational performance the HR leaders and processional are required to make the changes in the ideas, skills, task setting and competencies they have to acquire and possess new situation.

## **OBJECTIVES**

- To know the challenges faced by HR department in implementing Digitalized Environment (HRIS)
- To know how far the digitalization become more effective by means of usage

## **HR CHALLENGES**

### **1. Developing a Digital environment**

When defining a digital Environment it is essential to remember that implementation can be criticised by the corporate culture. Various strategy and easy workflow will be more effective in the company to have a “digital friendly”, by ensuring proper training in adoption of new value- generating behaviours.

Since the digitalization requires more awareness among the employees and also required more training in order to enhance more effective usage among the employees. Its is important to explain new practices to employees and managers to facilitate adopting and enable effective relationship in delegation and agility.

Expanding the organization into digitalized environment creates a new culture in the work place and also everything become more transparent within the organization that will be more helpful for all the employees.

### **2. Digital Transformation helping managers to have their own perspective :**

This helps the managers to update their new environment by challenging and changing the roles and responsibilities. For this necessary support is required from the employees at every level of hierarchy, especially lower and middle level managers who are most often focused on top-down approaches.

### **3. Developing more agile HR Processes**

The Human resource function must be prepared to rethink its processes to have a effective digital environment. (1) Better agile with business strategy and respond faster workforce planning (2) Simplify and fast training process which helps the employees comfortable moreover by brining reward scheme (3) The digital environment can easily promote through group performance and innovation (5) Simplify the HR processes for jobs, skills, training etc., (6) To provide better facilitate in mobility, develop employer brand, identifying new process to boost up productivity etc.,

### **4. Employee experience towards new environment :**

Implementing Digital transformation provides a new plat form to all the employees to boost their talents but considering the employee satisfaction in the new culture the HR departments should create corporate social networks and also should have a collaborative work environment to enhance better understanding among one each other.

### **5. Talent Retention:**

Talent retention become tough challenges for the HR's in hiring suitable candidates. Due to more competition in the market people are constantly looking for better growth and opportunities and high salary, because of this most of the employees is switch to new jobs that provide better growth and good income prospects.

### **Effective usage of Digital HRM**

Digital transformation and digital economy evolves the skills and expectation of the work force to shift organization need to be ready and respond to the challenges. HR leaders should prepare to embrace digital HR through Data literacy, and solving complex problems and project execution methodologies, such as design, thinking to bring new trend in the HR decade.

According to Deloitte's study on HR Tech disruption, the use of Artificial Intelligence, cognitive bots and intelligent predictive software within HR have all gone up and today many

organization are quickly bringing new functionalities into HRs approach to managing the work force( March 2020)

The effective digital HR Technology can be faster, more accurate and more efficient processes and reduced the HR cost once it's implemented.

### **1. Time Management:**

The digital HRM can track all the employees' details with a minimum time requirement. The employees leave request and remaining leaves and other employees growth related information can be maintained and reviewed effectively.

### **2. Managing Information:**

Digital HR Simplifies the process of accessing all employee details and also the data are more possible in helping to take effective decisions. The confidential information can be controlled for employees making sure the right information is available to the right people at the right time. Bringing all the organization data, information less than one centralized in a secure location. The Digital HRM reduced more cost by converting all the old documents into digital manner by minimizing paper work.

### **3. Using data & Analytics**

Organizations should understand the value of data analytics can add to the business areas like Pre- Selection, Learning & Development, Employee Engagement can be measured through Digital HR. The HR Function can be more benefit by learning to make sense of the data through various tools like SPSS Etc that helps to get improving functions to ensure employee satisfaction on the new work culture.

### **4. Shifting focus on the core activities.**

Digital HR can automate the manual work without maximum time consuming. Digital HR focus on more productive towards work. Any organization with a large number of employees will find difficult to manage their information on paper, but digital HR allows to stream line workflows to improve over all work productive.

## 5. Employee Development

Bringing new changes in the organization required training for the employees. This creates a platform for the employees to enhance their new skills in order to forecast the needs of current competition. Moreover learning new concepts will enhance the employees to get updated to meet the current requirements of various industries.

## 6. Employee user friendly:

Implementation of Digitalization needs time ones the employees started using the application it has become more user friendly so that employees can able to access their personal information's, growth related aspects, personal communication and all the other administrative process so the employees can access the using at any where to get prior permission for leave or any other organization related information. This hr digitalization saves time for both the HR Managers and the employees of the organization.

## Conclusion:

The Human Resource digitalization has become more important for today's environment. Owing to various competitions among the industries changes has become mandatory to survive. The human resource department facing more challenges in order to bring changes within the organization because adhere to new trends become more difficult for the existing employees as well identifying young talents. In this paper we have discussed about the challenges and effectiveness of Human Resource digitalization in a general view since it's a cost effective and more training required having a better and smooth environment.

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# A STUDY ON CONSUMER PREFERENCE TOWARDS DIGITAL PAYMENT APPLICATIONS IN RETAIL SHOPS IN CHENNAI

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## **ABSTRACT**

The new technology and the larger global network, especially the internet, are employed internally and externally for the digital economy, electronic commerce, and electronic banking. An increase in the use of the internet, electronics, and government programs like "Digital India" aims to turn India into a cashless society. The study investigates the customer's influencing factors towards Digital payments applications in retail shops in Chennai. The structured questionnaire was used as a research tool for understanding consumer preference for digital payment. Primary data was collected from 100 respondents in the Chennai district. The findings and concluding observations **safe and secure**, greater convenience to pay rather than in cash and solves the issue of searching for change are the most influencing factors in consumer preference towards digital payments in retail shops in Chennai.

**KEY WORDS:** Digital Payment Applications, Digital Transactions, One-touch digital payments, Retail Shops.

## **INTRODUCTION**

A digital payment is also known as an electronic payment. Digital payment is a value transfer from one payment account to another payment account made using digital device, such as a mobile phone, computer, POS (Point of Sale), or wireless mobile data. The Indian Government's flagship initiative, 'Digital India' aims to make India a nation with a strong digital infrastructure. One of the claimed functions of Digital India as part of governmental changes is "Faceless, Paperless, Cashless. "Digital payments are becoming more and more popular for a variety of reasons. Smartphone internet connection penetration, non-banking, one-touch digital payments, the emergence of the financial technology sector, and government encouragement in the form of tax benefits or incentives are some of the facilitators that

encouraged digital payments. There is a favourable environment for the development of digital payments in India due to all these factors coming together.

## REVIEW OF LITERATURE

**Prakash M (2022)** studied the consumer perception towards digital payment and observed that e-transfer of money has dramatically benefited from technological advancement and claims that government also supports and encourages the usage of digital payments. His study also claimed that digital payment has made human life convenient as a person can pay his payments online without any disruption.

**Shinki Katyayani Pandey (2022)** have analyzed the Digital Payments System & Consumer Perception. The study revealed that the the perception of digital payment tools affects an individual's payment behaviour. He also claimed that digital payments are not only driven by positive outlook on digital payments, but also a negative outlook on cash and explored that customers in India are willing to reduce the online fraud experience as the digital payment methods offer greater convenience.

**Suliman A Salem Ben Ghrbeia (2022)** studied the customer perception towards the digital payment and found that customers' perception was positively affected by Internet banking, mobile banking, ATM and POS systems and they prefer digital payment systems over the traditional methods and also claimed that, one's age when young can strongly accept Digital Payment Systems and when they grow older, they lose interest in accepting the Digital Payment Systems.

**Pankaj Zala, Jayprakash Lamboria and Jaydeep Santoki (2022)** have analyzed the Consumer Perception Towards Digital Payment Mode in India. In his study he found that it is difficult to safeguard the privacy and safety in Digital Payment Mode and they have also tried to discover what the clients think of transacting digitally and they found that consumers believe that credit/debit cards make them to do transactions digitally.

**K M, Siby (2021)** studied Consumer Perception of Digital Payment Methods in times of Covid Pandemic. The study revealed that demographic factors such as gender, age, education, profession, and monthly income have not made intense effect on the use of digital payment methods in times of Covid pandemic. The study also found that digital literacy with deep mobile penetration and accessibility to internet played an important role Santokus in the digital revolution of payment methods even in times of Covid pandemic.

## RESEARCH GAP

Many studies have been conducted earlier on the Consumer Perception Towards Digital Payment, but fewer studies are inclined toward Consumer Preference Towards Digital Payment applications in Retail Shops. So, this study focuses on filling this gap. This study focuses on identifying the various reasons for preferring digital payment application methods in retail shops by customers.

## OBJECTIVE

To identify the factors influencing digital payment applications methods while patronizing sales in retail shops.

## RESEARCH METHODOLOGY

<b>Table 1</b>	
Sample area	Chennai City
Sample design	Convenience Sampling
Sample size	100
Period of study	January 2023
Statistical tools	Simple percentage, Charts and Rank Correlation
Research instruments	A self-prepared structured questionnaire circulated through Google forms.
Collection of data	Primary data – Questionnaire Secondary Data – Research Journals, articles, websites.
Source: Compiled by the Authors	

## DATA ANALYSIS AND INTERPRETATION

### Demographic profile

The profile of the respondents was studied based on age, gender, educational qualification, occupation, and monthly income.

<b>Table 2 Demographic factors of the respondents</b>			
<b>Demographic Factors</b>	<b>Classification</b>	<b>No. of respondents (N=100)</b>	<b>Percent</b>
<b>Age</b>	Below 20 years	13	13.00

	21-30	46	46.00
	31-40	20	20.00
	Above 40	21	21.00
<b>Gender</b>	Male	35	35.00
	Female	65	65.00
<b>Education Qualification</b>	School-level	10	10.00
	Diploma	4	4.00
	Undergraduate	45	45.00
	Postgraduate	41	41.00
	Others	0	0
<b>Occupation</b>	Self-employed	4	4.00
	Private	37	37.00
	Government	12	12.00
	Homemaker	13	13.00
	Student	34	34.00
	Others	0	0
<b>Monthly income</b>	Below 10000	44	44.00
	10000-20000	11	11.00
	21000-30000	14	14.00
	31000-40000	12	12.00
	Above 40000	19	19.00
Source: Primary Data Analysis			

### Interpretation

- a) From the above table, it is observed that the majority of the respondents are female (65%) and the rest (35%) are male.
- b) Out of 100 respondents taken for the study, the majority of the respondents are in the age group 21-30 while in the age group 31-40 there are only 20%. It was found that 21% of respondents are above 40 years while 13% are below 20 years.

c) It is observed that 41 % of the respondents are postgraduates whereas 45% are undergraduates. About 10 % of the respondents are only having school-level education and 4% are diploma holders.

d)It is observed that 37% are private employees, 34% are students,12% are government employee, 4% are self-employed and 13 % of the respondents are homemakers.

e) The study revealed that there are 44% of respondents are having monthly income below 10000. Approximately 11% of the respondents are having monthly income between 10000-20000 and 19% are having above 40000, only 14% of the respondents are having 21000-30000, and 12% between 31000-40000.

### FREQUENCY STATISTICS AND RANKING

**Objective:** To identify the factors influencing digital payment applications methods while patronizing sales in retail shops.

<b>Table 3 Factors influencing digital payment applications methods while patronizing sales in retail shops</b>							
<b>Factors</b>	<b>Rank 1</b>	<b>Rank 2</b>	<b>Rank 3</b>	<b>Rank 4</b>	<b>Rank 5</b>	<b>Total</b>	<b>Final Rank</b>
<b>Greater convenience to pay rather than in cash</b>	58	24	15	1	1	434	2
Safe and secure	29	36	29	4	1	457	1
Saves time	44	33	19	3	1	416	4
Digital record of transactions	41	34	19	5	1	409	5
Do not have to carry cash	49	22	20	6	2	407	8
Contactless	41	29	22	6	1	400	9

<b>Multiple digital payments option</b>	35	42	21	1	1	409	5
Need not stand for long time to pay the bill	42	32	21	3	1	408	7
<b>Solves the issue of searching for change</b>	<b>56</b>	<b>23</b>	<b>18</b>	<b>2</b>	<b>1</b>	<b>433</b>	<b>3</b>
Source: Primary data analysis							

### Interpretation:

From the study, it is found that the major factors that influence the usage of digital payment applications in retail shops is “**Safe and secure**” with rank 1 followed by the factor ‘Greater convenience to pay rather than in cash’ and ‘Solves the issue of searching for change’ in ranks 2 and 3 respectively. The least considered factor ‘Do not have to carry cash’ and ‘Contactless’ in ranks 8 and 9 respectively.

### FINDINGS FROM THE STUDY

The demographic profile of the respondents showed that 46% of the respondents belong to the age category of 21-30 years, 45% of the respondents are undergraduates and 44% of the respondents belong to a monthly income category of below Rs.10000/- have also using digital payment application in retail shops.

Influencing factors reveals that majority of the respondents prefer using digital payment applications in retail shops as it is ‘Safe and secure’, ‘Greater convenience to pay rather than in cash’ and ‘Solves the issue of searching for change’ and the least influencing factors are ‘Do not have to carry cash’ and ‘Contactless’.

### CONCLUDING OBSERVATION AND SUGGESTIONS

The current study has explored every factor that is concerned with the digital payment applications methods while patronizing sales in retail shops. This research briefly identifies the major factors that influence the usage of digital payment applications in retail shops. The study concludes that irrespective of various demographic factors such as gender, age, education, profession, and monthly income, people tend to use digital payment applications even in retail

shops. Moreover, the research identified that most of the consumers prefer Google Pay for paying in retail shops. It is found that the major factors that influence the usage of digital payment applications in retail shops are safe and secure and greater convenience to pay using digital payment applications rather than in cash.

### **SCOPE FOR FUTURE RESEARCH**

The current study only explored the common factor that influences the usage of digital payment applications methods while patronizing sales in retail shops. There is the scope of a further study based on analysing the difficulties faced by the consumers while using digital payment applications in retail shops in Chennai and there could be also a study based on the issues related to failed transaction while paying using digital payment applications in retail shops.

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## THE IMPACT OF COVID-19 ON THE E- LIFE INSURANCE SECTOR: A CASE STUDY OF RAJASTHAN

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### ABSTRACT

The Covid -19 pandemic and lockdown have had an impact on almost all industries and sectors around the world, including the insurance sector, which contributes significantly to the country's GDP and economic development. E-life insurance covers a wide range of insurance activities that policyholders can perform online. Since these online transactions can be completed from a distance, contact is not required, and the risk of contracting COVID-19 is reduced. As a result, the purpose of this study is to investigate the use of E-life insurance before, during, and after the pandemic. This is a comparative study of e-life insurance service usage, benefits obtained, and factors that affect policyholders' usage e-insurance before, during, and after the COVID-19. The study focuses on primary data collected through questionnaires. There were only 400 questionnaires that were completely filled out. Secondary data was gathered through online articles on economic times, the IRDAI website, journals, newspapers, and other sources in order to review the literature and understand the theoretical background of E-life insurance in Rajasthan before (Phase I), during (Phase II), and after COVID-19 (Phase III). There is a significant difference in the factors influencing the use of E-life insurance services at various stages of a pandemic situation. Life insurance industry not only provided consumers with e-life insurance options, but they also increased consumer loyalty.

**KEYWORDS-** E- Life Insurance Sector, Financial Services, Customers, Satisfaction, Technologies

### 1.INTRODUCTION

The COVID-19 pandemic has had a profound impact on various industries across the globe, and the life insurance sector is no exception. The outbreak of the virus has caused widespread economic disruption, leading to a decline in consumer sentiment and a slowdown in new policy issuance. However, it has also accelerated the adoption of e-insurance, as people have been

forced to rely on digital channels for purchasing insurance products. The life insurance sector has been particularly impacted by the lockdowns and economic slowdown caused by the pandemic. The decline in consumer sentiment has led to a reduction in the number of people purchasing life insurance policies. Furthermore, the inability of insurance agents to meet with customers in person has resulted in a slowdown in new policy issuance. Despite these challenges, the industry has seen an increase in demand for life insurance products as people have become more aware of the need for insurance protection. The awareness has been especially high in health insurance products as the risk of falling ill has increased. Additionally, many insurance companies have been forced to adopt digital processes due to social distancing measures and lockdowns, which has helped to spur the growth of e-insurance. The adoption of e-insurance has been accelerated by the pandemic, as people have been forced to rely on digital channels for purchasing insurance products. This has led to an increase in the number of policyholders buying life insurance policies online. The digital process provides a convenient, efficient, and cost-effective way to purchase insurance products, which has helped to boost the growth of e-insurance.

### **1.1. E- LIFE INSURANCE**

E-life insurance, also referred to as online life insurance, is a form of life insurance policy that can be purchased, managed and serviced completely over the internet. It is a digital version of traditional life insurance policies, that have similar coverage and benefits, but with a difference in the way the policy is being bought, managed and serviced. The process of buying e-life insurance is done entirely online, either through an insurance company's website, or a digital insurance platform. One of the key advantages of e-life insurance is the convenience it offers. Policyholders can purchase and manage their policies from the comfort of their own home, using a computer or mobile device. This eliminates the need for in-person meetings with insurance agents, saving both time and effort. The online process is also more efficient, allowing for a quicker and easier process for policyholders to purchase and manage their policies. Furthermore, e-life insurance policies tend to be more cost-effective than traditional life insurance policies. This is because the process is more streamlined and efficient which reduces the cost. Additionally, policyholders can easily customize their coverage based on their individual needs and preferences, providing more flexibility. The digital process also provides more transparency, enabling policyholders to access and understand their policies and coverage easily, making it easier for them to make informed decisions about their insurance coverage. It

is worth mentioning that e-insurance doesn't always involve less human interaction. Some companies offer a hybrid model, called assisted e-insurance, which combines the convenience and efficiency of e-insurance with the personal touch of a face-to-face agent, providing a well-rounded and customer-friendly service. In summation, e-life insurance provides policyholders with a straightforward, productive, and reasonably priced option for acquiring and administering life insurance. Having this digital system in place paves the way for the efficiency, adaptability, and openness that policyholders want. E-life insurance is predicted to increase in popularity as the digitization trend continues.

### **1.2.E-life insurance during the Pandemic**

In India, the COVID-19 pandemic has had a significant impact on the life insurance industry, including e-life insurance. The lockdowns and economic slowdown caused by the pandemic have led to a decline in new policy issuance and a decrease in the number of people purchasing life insurance policies. However, as the economy began to recover, the industry has seen an increase in demand for life insurance products. Additionally, with the awareness of the importance of insurance protection raised by the pandemic, more and more people have been motivated to buy health insurance policies. The insurance sector in India is considered as a counter-cyclical sector, which means that during times of economic downturns and crises, people tend to invest more in insurance products. The pandemic has also accelerated the growth of e-insurance in India, as people were forced to rely on digital channels for purchasing insurance products. This led to an increase in the number of policyholders buying life insurance policies online, which has been a driving factor for the growth of e-insurance in India. The e-life insurance provides a convenient, efficient, and cost-effective way for policyholders to purchase and manage their life insurance policies. The insurance companies in India are now focusing on digitizing the process, this enables customers to buy and manage their policies without the need of an agent and from the comfort of their home. The Insurance Regulatory and Development Authority of India (IRDAI) has also been supportive of the growth of e-insurance in India, by issuing guidelines and regulations to facilitate the sale of insurance products through digital channels. In consequence, the COVID-19 epidemic has had severe repercussions for the Indian life insurance market, especially e-life policies. New policy issuance has dropped as a result of the lockdowns and economic slowdown brought on by the epidemic, although this has been counterbalanced by a rise in demand for life insurance products and the rapid development of e-insurance in India.

### 1.3 Significance of the study

The insurance industry is vitally important to the development of the Indian economy. The liberalization of the industry and the dismantling of monopolies in 1999 led in double-digit growth in both the life and non-life sectors. This industry offers several advantages like as covered life risks, health risks, savings and investment opportunities, and so forth. India is a massive nation with the world's second biggest population; however, insurance coverage remains low in comparison to other countries such as China, Japan, and Germany. The current Covid-19 pandemic scenario and shutdown have had a severe impact on India's insurance industry. Life insurance business in India is declining as the number of corona positive patients rises. The insurance business not only provides protection against life and non-life hazards, but it also employs a large number of people and contributes about 7% of an economy's total GDP. As a result, it is critical to investigate the after effects of the Covid-19 epidemic on the insurance industry's operations in Rajasthan . This is a comparative analysis of the use of e-life insurance services, benefits received, and benefits derived by customers before to, during, and after the COVID-19.

### 2. Review of literature

Chandel, R. S., Kanga, S., & Singh, S. K. (2021) map and address the Rajasthan COVID-19 pandemic using GIS. Risk evaluation, treatment, and management. Geospatial technology enhances Rajasthan COVID-19 risk assessment and decision-making. During COVID-19, Chaudhary, M., Sodani, P. R., & Das, S. (2020) examine India's aviation, tourism, retail, capital markets, MSMEs, and oil sectors. Airline and tourist revenue cutbacks due to the pandemic have hindered economic growth. Foreign investment and oil decrease. The pandemic pushed small and medium enterprises to move. Studies show that the pandemic has enabled "Make in India" labour reform and worldwide supply networks. Rajasthan's regulatory reforms and their consequences on small firms during COVID-19 are concluded by Choudhary, B., C., and Bhatnagar, S. (2022). Regulatory actions mitigated pandemic losses, according to primary survey data. Businesses suffer with debt, salaries, demand decline, and retention. According to the study, technology breakthroughs, rising sales and demand, and government bailouts may help firms recover. 2021's Prahasti examines Life insurance losses from the COVID-19 pandemic Digital marketing, consumer happiness, engagement, and life insurance purchase intention during the COVID-19 epidemic and shutdown, according to Dash, G., & Chakraborty, D. (2021). Digital marketing strategy change and customer purchase intents are

evaluated using structural equation modelling. SEM/SEO, display, and E-CRM greatly enhanced customer happiness and purchase intention, according to research. Customer satisfaction moderated digital marketing and purchase intention, whereas customer engagement moderated content marketing and communication. Digital marketing, customer happiness, engagement, and life insurance purchase intention during COVID-19 epidemic and shutdown, Dash, G., & Chakraborty, D. (2021). Digital marketing strategy change and customer purchase intents are examined using structural equation modelling. E-CRM, SEM/SEO, and display increased customer intent and satisfaction.

### 3. Research methodology

The research methodology is a complete strategy for gathering data on a particular subject. Several distinct approaches are used for various types of research, resulting in numerous scientific findings. The organisation of study is a method for methodically addressing study-related issues. The technique of the research is as follows:

#### 3.1 Objectives of the study

- To explore the concept of E-life insurance services in the situation of COVID-19 Pandemic.
- To study the usages and benefits availed by customers using E- life insurance services
- To suggest direction for future research.

#### 3.2 Research Hypothesis

**H1:** There is a significant difference in use of E-life insurance services in Phase I, Phase II and Phase III.

**H2:** There is a significant difference in benefits availed by using of E-life insurance services Phase I, Phase II and Phase III.

#### 3.3 Data collection and source

The research focuses on primary data collected via questionnaires. Google Forms was used to collect primary data. A Google Form was used to create a questionnaire. It was sent to a large number of individuals through Facebook, WhatsApp, and email. After receiving 412 completed surveys and verifying their completeness, only 400 questionnaires were determined to be

totally filled. Secondary data were gathered from online articles in economic times, RBI reports, journals, newspapers, and other sources in order to evaluate the literature and comprehend the theoretical background of the E-life insurance business in India before to (Phase I), during (Phase II), and after COVID-19 (Phase III). As a result, 400 fully completed surveys are selected for study.

#### 4. Data Interpretation and Analysis

##### 4.1 Demographic analysis

**Table 1: Demographic variables**

Variable	Frequency	Percentage
	Frequency	Percentage
Total	400	100
<b>Gender</b>		
Male	263	65.8
Female	137	34.2
<b>Age</b>		
Under 25 years	75	18.8
25-45 years	153	38.3
45-65 years	135	33.8
above 65	37	9.3
<b>Education</b>		
NON-Matriculation (under class 8)	20	5.0
Matriculation (up to class 10)	83	20.8

Graduate (BA, BCom, BSc, BBA, BTech, MBBS, LLB etc.)	170	42.4
Post-Graduation (MA, M.Com MSc, MBA, MTech, MD, LLM etc.)	103	25.8
Professional	24	6.0
NON-Matriculation (under class 8)	20	5.0
<b>Yearly Income</b>		
0-5,00,000(INR)	154	38.5
5,00,000-10,00,000(INR)	91	22.8
10,00,000-20,00,000(INR)	34	8.5
Above 20,00,000(INR)	121	30.3
<b>Residential Status</b>		
Urban	365	91.3
Rural	20	5.0
Semi-urban	15	3.8
<b>Type Occupation</b>		
Student	30	7.5
Home- maker	17	4.3
Unemployed	4	1.0
Pensioner	23	5.8
Employee - Public Sector	142	35.5
Employee- Private Sector	81	20.3

Self Employed	103	25.8
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Source – Primary Data

**Interpretation:** A total of 400 persons responded to the demographic profile survey, with 65.8% being male and 34.2% being female. The majority of responders were graduates between the ages of 25 and 45, with the lowest representing older than 65. The majority of responders earn less than Rs. 5,00,000. The vast majority of responders are from urban locations. The large majority of responders are government employees.

#### 4.2 Use of E-banking services

**Table 2 : Use of E-life insurance services**

Use of E-life insurance services						
Use of E-life insurance services	Phase I		Phase II		Phase III	
	Frequency	Percent	Frequency	Percent	Frequency	Percent
Yes	176	44	315	78.75	234	58.5
No	224	56	85	21.25	166	41.5
Total	400	100	400	100	400	100

Source – Primary Data

**Interpretation:** Table 2 shows how respondents used E-life insurance services throughout the study's phases I, II, and III. As shown in the table 2, 44 percent of respondents utilized e-banking services in Phase I, followed by 78.75 percent in Phase II and 58.5 percent in Phase III. 56 percent of respondents reported they did not use E-life insurance services in Phase I, 21.25% in Phase II, and 41.5 percent in Phase III. Due to social distancing and lockout restrictions, best use occurs during Phase II, during the crucial phase of the pandemic.

A paired t-test was performed to compare Phases I, II, and III to see whether there was a statistically significant difference. The paired t-test is a statistic used to determine whether the difference in means between two sets of measurements is statistically significant.

**Table 3 : Paired Samples Statistics**

Paired Samples Statistics					
		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	Phase I	4.56	400	.580	.029
	Phase II	4.24	400	.748	.037
Pair 2	Phase II	4.24	400	.748	.037
	Phase III	4.22	400	.752	.038

Source – Primary Data

**Table 4: Paired Samples Test**

Paired Samples Test									
		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1	Phase I-Phase II	.322	.866	.043	.237	.408	7.446	399	.000
Pair 2	Phase II-Phase III	.253	.906	.045	.163	.342	5.574	399	.000

Source – Primary Data

**Interpretation:** The results of the paired t-test are seen in Table 1.3 The null hypothesis that there is no significant disparity in Phase I, Phase II and Phase III is refuted and the alternative hypothesis accepted. The results show a significant difference in phase I and phase II ( $t=7.446$ ,  $p<0.05$ ). The results of Table 1.5 show a significant difference between Phase II and Phase III ( $t=5.574$ ,  $p<0.05$ ).

#### 4.3 Problem faced while using E-Life insurance Services

Table 5: Problem faced while using E-Life insurance Services

Problem in using services	Frequency	Valid Percent
Very often	1	.3
Occasionally	6	1.5
Rarely	132	33
Never	261	65.25

Source – Primary Data

**Interpretation:** In order to determine the extent to which customers have problems with their banks about these facilities, four complaint levels are considered: very often, occasionally, rarely, and never. According to Table 5, just 65.25% of respondents have never experienced a problem, and only 1 respondent has a problem on a regular basis.

#### 4.4 Benefits availed by using E-banking Services

The paired t-test was used to determine if there was a significant difference between Phases I, II, and III. The paired t-test is a statistical test that examines if the difference in mean variance between two sets of measurements is significant.

**Table 6: Paired Samples Statistics**

Paired Samples Statistics					
		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	Phase I	3.19	400	.652	.062
	Phase II	3.81	400	1.062	.053
Pair 2	Phase II	3.81	400	1.062	.053
	Phase III	2.94	400	.652	.065

Source – Primary Data

**Table 7: Paired Samples Statistics**

Paired Samples Test									
		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1	Phase I-Phase II	-.615	1.384	.069	-.751	-.479	-8.885	399	.000
Pair 2	Phase II-Phase III	.873	1.470	.074	0.728	1.017	-11.869	399	.000

Source – Primary Data

**Interpretation:** The results of the paired t-test are shown in Table 7. The null hypothesis that there is no significant change between Phases I, II, and III is rejected, and the alternative

hypothesis is accepted. The results suggest a significant difference between phases I and II ( $t=8,885$ ,  $p<0.05$ ). Table 7 reveals a substantial difference between Phase II and Phase III ( $t=11.86$ ,  $p<0.05$ ).

## 5. Conclusion

The present study demonstrates that the COVID-19 pandemic has had a significant impact on the e-life insurance industry and consumers in Rajasthan. The findings suggest that the potential for e-life insurance in Rajasthan is substantial, but further efforts are needed to fully realize this potential. The research highlights the important role that e-life insurance plays in protecting citizens in Rajasthan during and after the COVID-19 era. The study found that the use of e-life insurance in Rajasthan is perceived as secure, cost-effective, and a healthy means of conducting business during pandemics. Furthermore, the study found that e-life insurance services have undergone a drastic shift in their delivery method, with the traditional in-person transactions being replaced by online methods. This change has enabled consumers in Rajasthan to purchase insurance, make claims, and access other services from the comfort of their own homes or through the internet. However, the study also found that not all insurance companies in Rajasthan have effectively implemented full-service online insurance options. The research also revealed that while some citizens in Rajasthan are aware of the benefits of e-insurance, there is still a significant portion of the population that is not fully informed. It was also observed that the utilization of e-insurance services is more prevalent among those who possess technical skills. It is recommended that life insurance companies in Rajasthan should take steps to increase consumer awareness of e-insurance and to build trust in the security of these services. These efforts may include promoting e-insurance through various media outlets, such as newspapers, television, and the internet, as well as organizing awareness campaigns with the participation of expert insurance officials in colleges, societies, and organizations in Rajasthan.

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# INFLUENCING FACTORS FOR FALL OF CRYPTOCURRENCY IN INDIA

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## ABSTRACT

There is no denying that the age of information and communication technologies has given rise to a number of excellent opportunities. The finance and commercial sector are one of the industries that gains from these technology and online connections. Throughout human history, they have traded goods for money via the barter system. Since it was first used about 1000 years ago, fiat currency (notes and coins) is the most recent innovation and currently the most prevalent type of money. The development of money did not end here. This change is the result of institutional and technological advancements that allowed humanity to transition from a barter-based economy to the present payment systems, which are based on fiat money and, increasingly, digital money (such as credit cards or payment systems through mobile phones). What will happen next in this money history? Will the next revolution be brought on by Bitcoin or other cryptocurrencies? This research paper defines cryptocurrency and discusses its issues and solutions regarding the fall of Cryptocurrency in India.

**KEY WORDS:** Bitcoin, Cryptocurrency, Cryptocurrency Challenges, Cryptocurrency Legislations, Investors opinion, Opinion of Governments on Cryptocurrency, Uses of cryptocurrency.

## INTRODUCTION:

Until a few years ago, investment options included assets such as Real estate, gold, bank deposits, and stocks. Today, Cryptocurrency has taken off as a new investment asset class. Despite its good returns for investors, this new asset promises to disrupt the monopolistic tech

ecosystem, and now everybody wants to be a part of it. With daily global trading amounts of more than \$100 billion, the total global crypto market value has reached over \$ 2.12 trillion. But above all of this, before to choose, decide wisely and dive in. It's better to understand the avenues of investment better.

Due to the tax imposed on cryptocurrency transactions and recent raids by the Enforcement Directorate (ED) on cryptocurrency exchanges like WazirX, CoinDCX, and others, the volume of cryptocurrencies has substantially decreased, particularly for the Indian market. Major cryptocurrencies like Bitcoin and Ethereum experienced declines of more than 60%. In 2022, the value of cryptocurrencies like Shiba Inu and Solana dropped by more than 90%. Even Indian cryptocurrency exchanges like Wazir X have seen a sharp decline in volume, which has dropped by more than 75%.

In the market for cryptocurrencies, India has been extremely active. In reality, India is the country with the most cryptocurrency owners and the second-highest adoption rate, according to multiple study reports. With more than 15 million retail investors, more than 60% of the states in India are emerging as CryptoTech adopters. A strong institutional presence and almost 230 start-ups in this industry also exist in the nation, providing many prospects for expansion. Globally speaking, the Indian tech sector is booming thanks to hungry entrepreneurs and a strong talent base. If the ecosystem continues to expand as it has over the past few years, India is in an excellent position to dominate the globe in this industry. <sup>4</sup>

## **REVIEW OF LITERATURE:**

A cryptocurrency is a medium of exchange, such as the rupee or the US dollar, but is **digital in format** that uses encryption techniques to both control the creation of monetary units and to verify the exchange of money. Bitcoin is considered to be the world's best-known cryptocurrency and is the largest in the world according to market capitalization. Most cryptocurrencies are not regulated by national governments, they are considered alternative currency or means of financial exchange that are outside the scope of state monetary policy. However, In September 2021, El Salvador became the first country in the world to introduce **Bitcoin** as legal tender. <sup>1</sup>

Cryptocurrency and blockchain technology have been growing in popularity over the past few years, and as a result, the market for these products has exploded. However, this growth has come with some risk – specifically, the risk of investment bubbles bursting. The rise of cryptos in 2017 was a spectacular phenomenon. The value of many cryptocurrencies skyrocketed, reaching all-time highs. Many people saw this as a new opportunity to make money quickly. However, this boom also led to some serious problems like the issue of hacking, fraud, and frenzy buying. All of these factors contributed to the great crypto-market crash in 2018. However, it's still not clear what will trigger a new boom in cryptos.

Investing in crypto was at its peak in 2021. Despite Bitcoin reaching an all-time high of \$69,000 (Rs 54.5 lakhs) in November 2021, its overall market capitalization was around \$3 trillion. But, the current year 2022 turned out to be not so in favor of it. Cryptos dropped below \$2 trillion in January 2022, and after that, it was all downhill except for a slight recovery in April. It was in June that cryptocurrency markets hit a new low of 2022. The global crypto market cap has declined below \$1 trillion to \$977 billion. The global cryptocurrency market cap has fallen by over \$2 trillion after touching the \$3 trillion mark in November last year. There is a 50% to 70% drop in coin prices since their all-time highs. However, other tokens like Dogecoin, Avalanche, and Solana have taken an even bigger hit, with some tokens losing up to 90% of their value. As of today, the total market cap for crypto is \$860 billion.<sup>2</sup>

Cryptocurrencies are unregulated in India but in Budget 2022, the government announced a flat 30 per cent tax on gains from cryptocurrency transactions as well as a tax deducted source (TDS) of 1 per cent. “RBI is of the view that it should be banned. It has made its stand clear. The government believes that till legislation is formed around it, it should be taxed. RBI has been vehemently opposing cryptocurrencies. Governor Shaktikanta Das has on more than one occasion maintained that cryptocurrencies are a danger to the country and that anything whose value is derived solely from conjecture is speculative in nature. The central bank identified a number of risks related to the cryptocurrency asset markets, including connections between such markets and the regulated banking system. “Identification and quantification of risks posed by crypto-assets face data gap challenges,” the RBI has said in the past.<sup>3</sup>

**Cryptocurrency** has grown in size and popularity among investors to facilitate the financial activities such as buying, selling and trading in India and around the world. According to the **United Nations Conference on Trade and Development Report 2021**, **7.3%** of Indians

owned cryptocurrency in **2021**. As much appreciable as it is that India is rapidly moving towards **digitization** in almost every aspect of life, an underlying concern that needs immediate attention is that at present, **India does not have any regulatory framework to govern the crypto assets market**. The absence of a regulatory framework not only **creates uncertainty for businesses** looking to enter this space, but also **exposes investors to avoidable frauds**. An unregulated ecosystem can also facilitate **money laundering**, fraud and **terror financing**.<sup>1</sup>

In **2017**, the **Reserve Bank of India (RBI)** issued a warning that **virtual currencies/cryptocurrencies are not a legal tender in India**. However, no ban on virtual currencies took place. In **2019**, RBI issued that **trading, mining, holding or transferring/use of cryptocurrencies** is subject to punishment in India with a financial penalty or/and imprisonment up to 10 years. RBI also declared that it may launch digital rupee as a legal tender in India in future. In **2020**, the **Supreme Court of India removed the ban on cryptocurrencies** imposed by RBI. In 2022, the Government of India clearly mentioned in the **Union budget 2022-23** that-the transfer of any virtual currency/cryptocurrency asset will be subject to **30% tax deduction**. Gifts in the form of virtual assets/cryptocurrencies will be taxed in the hands of the receiver. In **July 2022**, The **Reserve Bank of India (RBI)** recommended a ban on cryptocurrencies citing '**destabilizing effects**' for the country's monetary and fiscal health.<sup>1</sup>

#### **NEED OF THE STUDY/PROBLEM:**

Due to the drastic change in the technology, it is important to study about the crypto and the problems of it. The need for the study is to know about the reason for the fall of cryptocurrency in India. As per the report (2022) given by the Indian government, the crypto has not yet reached to the people and the value of crypto has reducing drastically. The Indian people doesn't have the awareness of the Crypto. This study is done to know and solve this problem.

#### **RESEARCH GAP:**

Many researches have done on the Crypto. Some described about the Crypto and its status in India, fall of Crypto and so on. But in this modern era, India is going towards the digital world. We are in the world where many technological advancements have more. But the crypto doesn't have any growth in India in this modern era. Many developed countries are well versed

in the digital country. But India is in the initial stage alone. So, there is a need to study the fall of Cryptocurrency in India and the factors influenced the fall in India.

### OBJECTIVES:

1. To study about the cryptocurrency in India and abroad.
2. To identify and solve the reasons for the fall of cryptocurrency in India.

### RESEARCH METHODOLOGY:

The study on the Influencing factors for fall of Cryptocurrency in India is fully based on **collection of secondary data**. The method used to analyse here is **Trend analysis**. The trend between the period 2010-2022 and the Bitcoin price in India.

### DATA ANALYSIS AND INTERPRETATION:

The trend is taken from the period between 2010 to 2022 and the price of the Bitcoin and analyzed here.



Source: Extracted from [www.investopedia.com](http://www.investopedia.com) by the Authors

**Interpretation:** Bitcoin was launched in 2009 with a price of \$0. The cost then increased on July 17, 2010, to \$.09. The price of bitcoin climbed over the course of three months, rising from \$1 on April 13, 2011, to a high of \$29.60 on June 7, 2011. Midway through November, the cryptocurrency market's credit constraint caused the price of bitcoin to drop to \$2.05. The price increased the next year from \$4.85 on May 9 to \$13.50 by August 15. 2012 was a notable

year for bitcoin, but 2013 saw significant price increases. 2013 saw a price surge for bitcoin from \$13.28 to \$230 in April. On July 4, its cost dropped abruptly, dropping to \$68.50. The price of bitcoin was \$123.0 in October 2013. The price then increased quickly in December to \$1,237.55 before dropping back to \$687.02 in the same month. The price of bitcoin reached \$315.21 in 2015.

By the end of 2016, the price had gradually increased to above \$900. Bitcoin's price fluctuated around \$1,000 in 2017 before breaking the \$2000 barrier in mid-May. Then, in December, it dramatically climbed in price to \$19,345.49. Many organizations began creating cryptocurrencies at this point to rival bitcoin. And in June 2019, when the price surpassed \$10,000, there was a recovery in both price and trade volume. By mid-December, though, it had dropped to \$6,635.84.

In 2020, the COVID-19 pandemic caused the whole economy to collapse. The cryptocurrency's price at the start of the year was \$6,965.72. The global economic concern caused by the pandemic shutdown and subsequent government initiatives opened the ground for the rise of Bitcoin. The price of Bitcoin on November 23 was \$19,157.16. Then, in December 2020, the price of one bitcoin dropped to slightly under \$29,000.

By breaking its 2020 price record on January 7, 2021, the price of Bitcoin surpassed \$40,000. Then, as reported by Coinbase, Bitcoin's price rose to new all-time highs of over \$60,000 by mid-April. The all-time high for Bitcoin was \$63,558 on April 12, 2021. By July 2021, prices had decreased by 50% and were at \$29,796. Its price dropped by \$40,710 around two weeks later after scraping \$52,693 in September. On November 10, 2021, Bitcoin once more achieved an all-time high of \$68,789 before closing at \$64,995. Then, towards the middle of December 2021, its cost dropped to \$46,164. **The new COVID-19 variation, Omicron, and the uncertainties surrounding inflation caused the price to vary, which continued to alarmed investors.**

Bitcoin's price steadily declined between January and May 2022, hitting a closing price of \$47,445 at the end of March before dropping to \$28,305 on May 11. The first occasion that Bitcoin's price fell below \$23,000 was in December 2020. The price of Bitcoin then once more fell below \$23,000 at the end of 2022. Notably, from November 2021 to June 2022, Bitcoin's price movements resembled those of the stock market since the markets treated it like a stock.

**FINDINGS FROM THE STUDY:**

The decline of cryptocurrency in India has various causes. First and foremost, the covid pandemic is the main cause. Prior to 2020, cryptocurrency costs more than \$30,000. Both during and after COVID, the price dropped significantly. The new Omicron type caused the coin to plummet significantly in 2022. Secondly, India is experiencing widespread inflation. In India, the inflation rate is extremely high. This caused a significant drop in the price of cryptocurrencies. Thirdly, the conflict between Ukraine and Russia had an impact on the global economy, which had a direct impact on the Indian cryptocurrency market. The Indian tax system is another factor. The Indian government has imposed a 30% tax on cryptocurrency due to the country's high tax rate. This prompts investors to question their ability to invest in cryptocurrencies. The fact that the RBI does not regulate cryptocurrencies is the important factor. This is the main deterrent to investing in cryptocurrencies for investors. Investors should avoid these dangerous investments if they are not under RBI regulation. The lack of knowledge of cryptocurrency among Indians is the other significant factor. More than 20,000 cryptocurrencies can be found in India. Among that, 10 are the best currencies. One form of cryptocurrency that is well-known is bitcoin. Indians are unaware of the worth of the digital asset. According to the analysis, the cryptocurrency market was strong before to 2020. The Indian cryptocurrency market crashes in 2022 and gradually shrinks. In the budget, the Indian finance minister declared that the RBI will not regulate cryptocurrencies. One of the factors contributing to the decline of cryptocurrency in India is this assertion.

**CONCLUSION AND SUGGESTIONS:**

In conclusion, we may state that India's future lies in cryptocurrencies. According to experts, Indians will start using this cryptocurrency in a few years for a variety of exchanges and transactions. The price of cryptocurrencies will undoubtedly rise in India by the end of 2023. The Indian cryptocurrency market has been divided into segments based on product type (Bitcoin, Ethereum, Ripple, Dash coin, and others), transaction procedure (mining), and end-users (banking, real estate, stock market and virtual currency). One of the riskier investments is cryptocurrency, which is also unpredictable. There is a chance for increased gain and loss. India's and the world's future will be in cryptocurrencies. Blockchain technology is also used to protect investors from fraudulent activity. The value of virtual currency will rise if we make investments in it.

The study makes some suggestions, including that the Indian government lower tax rates and implement preventative measures when there is inflation. RBI may view cryptocurrencies as India's future and may regulate the country's crypto sector. They can increase the security of blockchain technology and protect investors even more. They can spread knowledge about cryptocurrency and its significance among Indians. Overall, everyone should be aware that cryptocurrency will play a significant role in India's future.

#### **SCOPE FOR FURTHER RESEARCH:**

Further study can be conducted to check how the cryptocurrency is ruling the Indian economy and the impacts, the fall of cryptocurrency can be compared with other developed countries. The problems which the investors face in this recent trend to invest in the cryptocurrency. The comparison between India's regulated digital currency and cryptocurrency can also be analysed further.

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# A STUDY ON RURAL CONSUMER TOWARDS FAST MOVING CONSUMER GOODS WITH SPECIAL REFERENCE TO CHENGALPATTU DISTRICT

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## **ABSTRACT:**

The aim of this paper is to comprehend the rural buying behaviour and the factors influencing rural purchase towards Fast moving consumer goods (FMCGs). FMCG includes biscuits, toothpaste, soap, dairy products, shampoos and soft drinks, the consumer behaviour of the rural population logically prefers the product making the purchase decision and expressing the satisfaction level. In olden days rural people bought goods only for low level of literacy, lack of market communication and low brand awareness, but now a day they are consumed various branded items in their day-to-day life because certain factors are influencing buyers to purchase the FM products. Rural consumer buying behaviour only depends upon their needs and wants. The selection and purchase of the products depend on the differential behaviour over time, availability of information from various sources, their preferences to a particular product their utility. Promotional schemes are more far away to consumers in many villages. A study on rural consumer behaviour conducted in Chengalpattu District helps the rural marketers to provide valuable information and guidelines for making more valuable customers in rural areas. Primary data was collected from 100 respondents in Chengalpattu District. The finding and concluding observation is that Quality of products, advertisement and cost are the most influencing factors in buying fast moving consumer goods with special reference to Chengalpattu District by rural consumers.

**KEYWORDS:** Brand awareness, Consumer Behaviour, Customer Satisfaction, Fast Moving Consumer Goods, Rural Consumer, Rural Market

## **INTRODUCTION**

Consumer behaviour is the study of individuals and all the activities associated with purchase decision, use and disposal of goods and services. It is also consists of how the

consumers to buy the products are influenced by attitudes, emotions and preferences. Rural consumers are mostly depends on agriculture and were not very literate about products and services available in the market. This scenario is slowly changing due to an increase in literacy and disposable income. The rural consumer has less disposal income. Therefore, they prefer to buy only less expensive products. They differ from urban customers with respect to their lifestyles and thinking. A rural market is price-sensitive but also appreciates quality products, thus technique designed by rural customer may differ from their urban counterpart. Price is the strongest factor for making their buying decision. The main goal of rural marketing is aim to improve standard of living of rural consumers by providing them greater awareness and accessibility to new products and services. Fast moving consumer goods (FMCG) which are regularly/frequently consumed by rural and urban peoples. Moreover, 70% of Indian population lives in villages and constitutions a big market for industry. FMCG market in India is expected to increase at a CAGR of 14.9% to reach \$220 billion by 2025, from \$110 billion in 2020.the fast moving consumer goods market expanded 16% in value during 2021. With household and personal care accounting for 50% of FMCG sales in India, the industry is an important contributor to India's GDP. So this study mainly focuses on rural consumer behaviour towards FMCG in Chengalpattu district.

## REVIEW OF LITERATURE

**Suraj Verma, Kuldeep Chand Rojhe , Elena Horska, Somesh Sharma and Peter Sedik, (2023) “Consumer Decision Making Rules For FMCG Products - Study Of Rural In North India”-** reveals that there are two rules of consumer decision making i.e., educational backgrounds and the number of family members under the age of 18 years. These two factors are influence rural consumer and also research helps the rural marketers in designing strategies that makes consideration the needs and demands of rural residents. **Chandra Sekar, Radhesyam, Poojitha, Bargrecha & Akhilkumar (2022) “Rural Buying Behaviour towards Select FMCG Products”-** reveals that changing the lifestyle of rural peoples has improved recently. So that rural buyers are mostly consumed by branded items. High levels of income, education change the rural consumers into a super rural consumer in the era of technology. Rural marketers need to develop a market communication and focus on women buyers because they are only found to be more loyal to the shop. Most of the village people visits their regular shop and purchase their FMCG products. **R. Raghuram & Dr G. Balasubramania Raja (2022) “A Study on Rural Consumer Buying Behaviour of FMCG**

**of Products in Thiruvallur”**- describes that three variables like price, product and psychological aspects are associated with buying behaviour. If price is change, consumption in the rural market may decrease because price having the greatest effect on buying behaviour. **Dr.A.Rama Satyavathi & S. Ramesh (2021) “A Study On Customers’ Satisfaction Of FMCG Products With Special Reference To Khammam District** identified that consumer behaviour is largely influenced by location, product price and promotion, people influence and market – wide factors and to examine socio economic background of respondents, analysing factors motivate for purchasing FMCG products. **Dr.V.T.Dhanaraj (2020) “A Study On Consumer Brand Awareness Of Fast-Moving Consumer Goods (FMCG) -** This research reveals that rural market offers a growth opportunity like untapped market, large population and huge scope for penetration. While urban market is almost reaching towards the saturation point this is an urgent need to focus on rural development. To modify the marketing mix elements for rural market, because the attractive ness and suitability of those elements is highly beneficial to FMCG players. It also identifies factors influencing their awareness and preferences for FMCG brands are that, to examine the differences among users with various level of explore and preferences. **Dr.K.Vijayakumar & R.Nijanthan (2019) “A Study on Consumers Buying Behaviour towards FMCG Products With Reference To Karur District –** found that rural consumer purchase decision depends upon branding and quality of the products. This was carried out by identifying the main variables have a least quality and also 4P’s (pricing, packaging, promotion and purity). Brand loyalty only way to fight with competitors in the market price. The manufacturer should focus to sell their products in standard price with good quality, availability of brands in all stores and to retain their valuables customers only by selling low cost. This concept also indicates that consumers develop their behavioural and attitudes to FMCG brands even though some products are get fails in low involvement but it was successfully in creating brand values in the minds of the rural consumers.

## **STATEMENT OF THE PROBLEM**

Fast moving consumer goods are sold quickly and also reasonable price to buy the products. FM products like soaps, biscuits, soft drinks, dairy products, cosmetics, toothpaste and perfumes. To understanding their behaviour helps to identify the preferences influence of brand in their purchase decision, on the purchase of particular FMCG products. In olden days rural consumer has low level of brand awareness and lack of market communication about FM

product but now peoples are more knowledge about branded items because certain factors are influenced them to buy their product.so manufacturer companies need to know or identify that in which items rural areas people preferred to buy. The purpose of study is makes an attempt to analyse the rural consumer for which branded items or products to satisfy their needs. In this background it is identify that there is need for research work in the field of rural consumer's behaviour of FMCG in the Chengalpattu district.

### **OBJECTIVE OF THE STUDY**

To identify the factors influencing rural consumer buying decision for fast moving consumer goods.

### **RESEARCH METHODOLOGY**

<b>Table 1</b>	
Sample area	Chengalpattu
Sample design	Convenience Sampling
Sample size	100
Period of study	January 2023
Statistical tools	Simple percentage and Ranking method
Research instruments	A self-prepared structured questionnaire circulated through Google forms.
Collection of data	Primary data – Questionnaire Secondary Data – Research Journals, articles, websites.
Source: Compiled by the Authors	

### **DATA ANALYSIS AND INTERPRETATION**

#### **Demographic profile**

The profile of the respondents was studied based on age, gender, educational qualification, occupation, and monthly income.

**Table 2 Demographic factors of the respondents**

<b>Demographic Factors</b>	<b>Classification</b>	<b>No.of respondents (N=100)</b>	<b>Percentage</b>
<b>Gender</b>	Male	28	28.00
	Female	72	72.00
<b>Age</b>	Below 20 years	9	9.00
	21-30	81	81.00
	31-40	8	8.00
	Above 40	2	2.00
<b>Education Qualification</b>	School-level	7	7.00
	Diploma	5	5.00
	Undergraduate	36	36.00
	Postgraduate	50	50.00
	Others	2	2.00
<b>Occupation</b>	Self-employed	11	11.00
	Private	24	24.00
	Government	2	2.00
	Homemaker	9	9.00
	Student	54	54.00
	Others	0	0
<b>Monthly income</b>	Below 10000	57	57.00
	11000-20000	19	19.00
	21000-30000	14	14.00
	31000-40000	6	6.00
	Above 40000	4	4.00

Source: Primary Data Analysis

**Interpretation**

- 1) From the above table, it is observed that the majority of the respondents are female (72%) and the rest (28%) are male.
- 2) Out of 100 respondents taken for the study, the majority of the respondents are in the age group 21-30 while 9% were below 20 years. While in the age group 31-40 there are only 8%. It was found that 2% of respondents are above 40 years.

- 3) It is observed that 50 % of the respondents are postgraduates whereas 36% are undergraduates. About 7 % of the respondents are only having school-level education while 5% are diploma holders, 2 % are from other backgrounds.
- 4) It is observed that 41% are private employees, 33% are students, and 8 % each for government and self-employed. Only 6 % of the respondents are homemakers and 4 % are from other area of occupation.
- 5) The study revealed that there are 57% of respondents are having monthly income below 10000. Approximately 19% of the respondents are having monthly income between 10000-20000 and 14% are having 21000- 30000, only 6% of the respondents are having 31000-40000, and 4% are having above 40000.

### FREQUENCY STATISTICS AND RANKING

**Objective:** To identify the factors influencing rural consumer buying decision for fast moving consumer goods.

<b>Table 3 Factors influencing the rural consumer to buy FMCG products</b>							
<b>Factors influencing</b>	<b>Rank 1</b>	<b>Rank 2</b>	<b>Rank 3</b>	<b>Rank 4</b>	<b>Rank 5</b>	<b>Total</b>	<b>Final Rank</b>
<b>Advertisement</b>	<b>22</b>	<b>62</b>	<b>8</b>	<b>8</b>	<b>0</b>	<b>398</b>	<b>2.5</b>
Availability of products	24	54	17	5	0	397	4
Brand loyalty	22	50	20	6	2	384	11
<b>Cost</b>	<b>27</b>	<b>53</b>	<b>12</b>	<b>7</b>	<b>1</b>	<b>398</b>	<b>2.5</b>
Income and occupation	23	52	20	3	2	391	5
Literacy level of people	21	52	19	6	2	365	12
Long lasting	26	50	14	8	2	390	9.5
Product packaging	22	56	16	5	1	393	6.5
Product shape and colour	21	54	20	4	1	390	9.5
Product and service reviews	29	45	18	6	2	393	6.5
<b>Quality of products</b>	<b>38</b>	<b>46</b>	<b>13</b>	<b>1</b>	<b>2</b>	<b>417</b>	<b>1</b>
Social media	23	56	12	7	2	391	8

Shopkeeper's recommendation	25	52	18	3	2	395	5
Source: Primary data analysis							

**Interpretation:**

From the study, it is found that the major factors that influence the buying of fast moving consumer goods is 'Quality of products' with rank 1 followed by the factor of 'Advertisement' and 'cost' in ranks 2.5. The reasons that are least considered factors to influence for buying fast moving consumer goods is 'Brand loyalty' and 'Literacy level of people' in ranks 11 and 12 respectively.

**FINDINGS FROM THE STUDY**

Demographic profile reveals that majority of the respondents are female, their age group are between 21-30 years, the educational qualification of the respondents are post graduates, their major incomes are below 10000 and most of the respondents are student.

Influencing factor reveals that majority of the respondents in rural areas to buy Fast moving consumer goods based on quality of products. Cost and advertisement is also one of the factors influencing the consumer to buy FM Products. Brand loyalty and literacy level of people are considered to the least influencing factors.

**CONCLUDING OBSERVATION AND SUGGESTIONSS**

This study deals with the analysis of the primary data which has been collected from 100 respondents who are the regular consumers of FMCG products. Fast moving consumer goods like soaps, biscuits, soft drinks, dairy products, ice cream, cosmetics, toothpaste and perfumes. The changing of lifestyle in rural areas improved consumption of quality products. So the organisations must consolidate this fact and reengineer business strategies towards meeting the changing needs and wants of rural consumers in the era of technology. Price is the strongest factor that affects their buying decision .But in these study rural peoples is more conscious about quality of products. Cost and advertisement is also one of the factors influencing the consumer to buy FM Products. Brand loyalty and literacy level of people are considered to the least influencing factors. It clears from the study that FMCG acquire a major share in the consumer goods market the manufacturer as to provide quality goods at a

reasonable price. Hence the researcher hopes that all these information in this study will assist companies in shaping their marketing strategies and better serving their rural customers.

### SCOPE FOR FUTURE RESEARCH

This study is carried out in Chengalpattu district with special reference to FMCG products for buying behaviour in rural areas and explored the common factors that influenced the buying of fast moving consumer goods by rural consumers. There is the scope for further study based on comparing any two FMCG products and there could be also a study based on changes in consumer attitude time to time in buying FMCG.

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## **A STUDY ON ANALYSING THE GEN Z's INTEREST AND AWARENESS ON DIGITALIZATION OF BANCASSURANCE**

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### **ABSTRACT**

Today the world is filled with uncertainty. These uncertainties cannot be avoided but can be mitigated with the help of insurance policies. Now a days there are many models in which companies offers insurance policies. One of such models which gains more popularity in recent times that is after COVID is Bancassurance. Bancassurance uses the reach and reputation of the bank to sell its insurance policies to the customers. Bancassurance is a multi gain model where Insurance companies able to sell more policies through Bank, the customers are insured for their life and wealth with the assurance given by Bank and Bank also gain commission on basis of the agreement with the insurance company for selling its policies. But, the penetration of bancassurance among the people of India is very less. The modern generation has less interest and knowledge of Bancassurance due to the availability of digitized insurance companies such as policybazaar, star insurance. The problem the Bancassurance faces is lack of digitized platform and advertisement which made bancassurance not to reach to many customers. This study is undertaken to understand the Gen Z's interest and their awareness level on digitalization of Bancassurance.

**KEY WORDS:** Awareness, Bancassurance, Customers interest, Digitalization of Bancassurance

### **INTRODUCTION**

Bancassurance is a method of selling insurance where the bank sells insurance policies on behalf of the insurance company. Bancassurance acts as a middleman for insurance companies and consumers. This partnership arrangement can be profitable for all the parties.

Banks earn additional revenue in the form of commission by selling insurance products, and insurance companies expand their customer bases with the help of the Bank's consumer base without increasing their sales force. And on the other hand, consumers will get insurance policies which are assured by the bank. Since the bank holds high loyalty, the customers can rely on the Bank. There is a drastic change in Consumers behaviour after the COVID pandemic. The purchasing preference has turned from physical mode to online mode. Digitized methods of transaction are more convenient for the people. A recent Deloitte survey in India that showed 55% of the respondents are comfortable in transacting on a financial superstore app. Bancassurance has higher potential to penetrate in the Indian market. But it is not known to many people and the reach is very less. If the Bancassurance model adopts Digitized technology, it attracts the interest of Gen Z and thus the penetration level can be increased.

## REVIEW OF LITERATURE

1. **Mugdha Relan (3 September 2020) - Digitalization in the Bancassurance Model of Distribution: Opportunities and Challenges** understands the increase in usage of mobile phone and internet by the people and their interest on digital platforms. Bancassurance after past COVID and future models of Bancassurance.
2. **Mrs. P.Srilatha (25 February 2018) Bancassurance in India and Digitalization** described the digitalization in banking and insurance sectors and concepts of bancassurance and concluded with the importance of digitalization in bancassurance in India.
3. **Joao Bueno, Bruno Dinis, Bernhard Kotanko, Dario Maggiora, and Rui Neves - (4 March 15, 2019) Bancassurance: It's time to go digital** gives the global perspective of change in consumer preferences and banking operations and need for digital channels for bancassurance for making it simple and reduce most of the barriers.
4. **Darren Pigg and Lee-Han Tjioe - Bringing bancassurance into the digital era (June 2019)** has mentioned the changing customer preferences in a digital world and provide some ideas to banks to improve the insurance sale through Bancassurance.
5. **Amir Sadiq (04 Oct 2021) Digitalisation key to the future of bancassurance – Max Life's Varun** mentioned the changes that COVID 19 brought up in the insurance sector and the areas in which the Bancassurance should continue improving.

## RESEARCH GAP

The review of literature reveals that there is research on the changes on consumers preferences towards Digitalisation after COVID pandemic, Changes to be made in Bancassurance in future and the concept of digitalization of Bancassurance. But there is no research to find out the interest and awareness of Gen Z in Bancassurance, which is one of the factors that makes penetration less. And the reason for such a situation is lack of digitalization and advertisement. So, the research gap is lack of penetration of Bancassurance in Gen Z due to lack of digitalization and advertisement.

## OBJECTIVES OF THE STUDY

1. To find the awareness level of Gen Z in Bancassurance.
2. To analyse the interest level of customers on Digitalization of Bancassurance.

## RESEARCH METHODOLOGY

<b>Table 1</b>	
<b>Sample area</b>	Chennai
<b>Sample design</b>	Convenient Sampling
<b>Sample size</b>	100
<b>Period of study</b>	January 2023
<b>Statistical tools</b>	Simple percentage
<b>Research instruments</b>	A self-prepared structured questionnaire circulated through Google forms.
<b>Collection of data</b>	Primary Data - Questionnaire Secondary Data – Research Journals, articles, websites.

**Source: Compiled by the Authors**

## DATA ANALYSIS AND INTERPRETATION

Demographic profile of the respondents shows that out of total respondents in which 43% fall under the age group of under 20 years whereas 39% fall under the age group of 21-30 years, 12% of the respondents from 31-40 years of age and the remaining 6% respondents were 41 – 50 years old

### 2. Do you or your family member have insurance policies

Options	Number of Respondents	Percentage
Yes	77	77%
No	23	23%
<b>Total</b>	<b>100</b>	<b>100%</b>

Source: Primary Data Analysis

Table 2 – Table showing the numbers of respondents who are having and not having insurance policies

**Interpretation:** Table 2 reveals that 77% of the respondents have an insurance policy and 23% don't have an insurance policy. This shows even in this generation some people do not have an insurance policy and the steps should be taken to cover the 100% population.

### 3. From where do you or your family members took insurance policy

Options	Number of votes	Percentage
Private companies	20	14.93%
Public company	77	57.46%
Bancassurance	23	17.16%
Digital application	14	10.45%
<b>Total</b>	<b>134</b>	<b>100.00%</b>

Source: Primary Data Analysis

Table 3 – Table showing from where the respondents took the insurance policies

**Interpretation:** The table 3 shows the source from where the population took their insurance policies. Some respondents have taken insurance from more than one source. From the Public Company that is LIC 57.46% of the respondents have taken the policies. And 14.93% are taken from private companies like Star Insurance, 17.16% are taken from Bancassurance channel and 10.45% are taken from Digital applications like Policybazaar. LIC has a strong place in the customer's mind. And other modes of insurance channels should be strengthened to penetrate much in the Indian market.

#### 4. Are you aware of BANCASSURANCE

Options	Number of votes	Percentage
Yes	51	51%
No	49	49%
<b>Total</b>	<b>100</b>	<b>100%</b>

Source: Primary Data Analysis

Table 4 – Table showing the awareness level of bancassurance.

**Interpretation:** Table 4 shows that 51% of the respondents know about the Bancassurance and 49% of the respondents have no idea about the Bancassurance model. There are various factors which are the reason for this unfamiliarity. Steps should be taken to eliminate those factors so that the bancassurance can be made familiar. Banks should focus more on advertising the bancassurance model and increase the awareness level of the customers.

#### 5. What may be the reason for unfamiliar bancassurance from your perspective.

Options	Number of votes	Percentage
Lack of Advertisements	62	44.60%
Lack of Digitalized application	41	29.50%

Comfortable with agents or private insurance companies	36	25.90%
<b>Total</b>	<b>139</b>	<b>100.00%</b>

Source: Primary Data Analysis

Table 5 – Table showing the reasons for unfamiliar bancassurance from respondents' perspective.

**Interpretation:** The table 5 shows 44.60% of the respondents feels the lack of advertisements is the major barrier for unfamiliarity of bancassurance. And 29.50% feels that lack of Digitalized application was the cause and 25.90% of the respondents are comfortable with the agents' service and they feel they no need bancassurance. The respondents' perception is given in the table and the bank and insurance companies should work on promoting bancassurance in media and banks should come up with a digitalized application exclusive for bancassurance so that the awareness level can be increased.

## 6. Which features attracts you more in Bancassurance

Options	Number of votes	Percentage
Assurance provided by the bank	30	22.72%
Easy way to pay premium through bank channel	29	21.97%
Easy access to claims	44	33.34%
Advice provided by bank experts	29	21.97%
<b>Total</b>	<b>132</b>	<b>100.00%</b>

Source: Primary Data Analysis

Table 6 – Table showing the features of bancassurance which the respondents like the most.

**Interpretation:** The table 6 reveals that 33.34% of respondents are attracted by easy access to the claims through bancassurance, 22.72% are attracted by the assurance provided by the bank, 21.97% respondents attracted by the easy ways of paying premium and the advice provided by bank experts. This reveals the extent of interest which respondents have towards the features of bancassurance.

**7. If the Bancassurance model becomes available digitally what will be your satisfaction level**

<b>Options</b>	<b>Number of votes</b>	<b>Percentage</b>
Highly satisfied	12	12%
Satisfied	59	59%
Neutral	29	29%
Dissatisfied	Nil	Nil
Highly dissatisfied	Nil	Nil
<b>Total</b>	<b>100</b>	<b>100%</b>

Source: Primary Data Analysis

Table 7 – Table showing the respondents satisfaction level if be bancassurance model becomes digitally available

**Interpretation:** The table 7 shows that 12% of the respondents vote as they are highly satisfied if the bancassurance model becomes available digitally. 59% of the respondents are satisfied, 29% of the respondents stayed neutral. None of the respondents are dissatisfied by Digitizing bancassurance channel. This shows that the customers are ready to accept bancassurance digitally, but they should be educated more about it.

**8. If bancassurance model becomes available digitally, will you be interested to take policy through Bancassurance**

<b>Options</b>	<b>Number of votes</b>	<b>Percentage</b>
Yes	42	42%
No	13	13%
Maybe	45	45%
<b>Total</b>	<b>100</b>	<b>100%</b>

Source: Primary Data Analysis

Table 8 – Table showing the numbers of respondents who take insurance through the bancassurance model if it becomes available digitally.

**Interpretation:** From table 8, 42% of the respondents say they will take insurance policies through bancassurance if it is available digitally. 13% say they will not take insurance policy through digitized bancassurance because they are comfortable with the traditional methods like insurance agent. 45% of the respondents feel they may take insurance policy through digitized bancassurance, and they need adequate education on bancassurance. This reveals that nearly half of the population shows their interest towards the bancassurance.

### 9. If Bancassurance model becomes available digitally which features attracts you the most

Options	Number of votes	Percentage
Digital rewards like scratch card	28	20.00%
Round the clock accessibility	28	20.00%
Improved customer service	37	26.43%
More convenient	47	33.57%
<b>Total</b>	<b>140</b>	<b>100.00%</b>

Source: Primary Data Analysis

Table 9 - Table showing the features of Digitized bancassurance model which the respondents like the most.

**Interpretation:** The table 9 shows that 20.00% of the respondents will be attracted by the digital rewards like scratch card and round the clock accessibility of the service if the bancassurance becomes available digitally. 26.43% will be attracted by improved customer service and 33.57% will be attracted by the convenience provided by the Digitalized bancassurance. This reveals the interest of the respondents towards the features of Digitized model of bancassurance.

## **FINDINGS FROM THE STUDY**

From this study it reveals that 77% of the respondents have a insurance policy. 57.46% of the respondents prefer Public company for taking insurance policy. From the respondents 51% have some knowledge about bancassurance and 49% have no idea about bancassurance. Lack of advertisement on bancassurance is the major reason for the unfamiliarity and 44.60% of the respondents accept it. Regarding the features of bancassurance 33.34% of the respondents were attracted by the feature of easy access of the claims. 59% of the respondents vote as they are satisfied if the bancassurance model becomes available digitally. If the bancassurance channel becomes available digitally 42% will take insurance through bancassurance. 33.57% of respondents feel that if the bancassurance model becomes available digitally it will be more convenient for them.

## **CONCLUDING OBSERVATION AND SUGGESTIONS**

This study was undertaken to find out the awareness level of Gen Z in the bancassurance model and the interest level of the customers on the digitized bancassurance model. Since most of the respondent are the between the age limit of 18 to 40, they comes under the Gen Z. This research has found out that nearly half of the respondents does not know more about the bancassurance model so that we should work towards it by the way of advertising and educating the population to increase the awareness level. Improving advertisement on bancassurance and implementing a digitized platform can attract Gen Z so that we can also increase the penetration level. On the part of availability of digitized applications most of the respondents are satisfied and interested in using the digitalized way of bancassurance model. The interest rate of Gen Z's in using digitized applications and the interest towards the features provided by digitized applications is more. From this study, the suggestion to the banks and insurance companies is to increase the advertisement to increase the awareness level and to work on creating a digitized platform to increase customer experience and to penetrate more into the market.

## **SCOPE FOR FURTHER RESEARCH**

This study focused only on the awareness level of Gen Z. Still there is huge population where the study is not undertaken. And this study only consider the digitalisation of

bancassurance for increasing the interest of the customers and increase the penetration. There are also many other ways which the banks can focus to increase the interest level and penetration of bancassurance. This study only focused on lack of advertisements and lack of digitized platforms as the barriers. Even there are also other barriers which should be focused.

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# A STUDY ON THE CHALLENGES OF AGRICULTURAL EXPORTS IN INDIA

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## **ABSTRACT:**

India is predominantly an agrarian nation, with the bulk of the population relying on agriculture as their main source of income. In India, the agricultural industry accounts for around 58% of all employment and is the major source of income. India is among the nations that generate the most agricultural and food products worldwide. With a sharp increase in population and per capita income as well as increased demand for Indian agricultural exports from all over the world, there is an ongoing increase in demand for Indian agricultural products. India's contribution to world commerce, however, is only close to 2%. One of the prerequisites for the nation's success in its international trade is the agriculture sector's export focus. Even though India's agricultural exports are expanding steadily, a large variety of issues are also impeding India's future development and performance in the agriculture exports market. There is an urgent need to overcome the export hurdles if India is to realise its full potential and export a larger portion of its output. This study analyses India's agricultural export performance through time in order to identify the factors that are limiting India's ability to expand its agricultural exports such as lack of farm mechanisation, infrastructure facilities and fragmented landholdings. The performance of India's agricultural exports during the COVID-19 pandemic is also discussed in this paper. The results and underlying assumptions of the study are presented here.

**KEYWORDS:** Agricultural exports, Challenges, Commodities, COVID-19, Exports, Food products, Indian Agriculture.

## **INTRODUCTION:**

Agriculture is the largest source of employment for most of the people of India and it plays an eminent role in developing the economic condition of our country. India's agriculture

sector is one of the fastest-growing sectors among other nations in the world. Nearly 58% of the Indian population is dependent on Agriculture and its related activities for their livelihood and their primary source of income. Because of the desirable agro-climatic conditions and wide availability of natural resources, India has always been the greatest contributor to World's food basket. The agricultural output from India has contributed significantly to the agricultural output worldwide. The agriculture sector along with forestry and fisheries occupies a major share in the total exports of India. India's agricultural exports have grown up to 25% during the first half of the current financial year (2022-2023). During the period from 2021-22, India recorded up to US\$ 49.6 billion of total agriculture exports which shows a 20% increase from the previous fiscal year. India occupies a leading position in the international trade of agricultural commodities. Indian agriculture has demonstrated impressive endurance during COVID-19. Despite these successes, India's agriculture still faces challenges such as adjusting to climate change disturbances, scattered landholdings, declining agricultural productivity, and high food price fluctuations. To address these issues, India's agriculture needs to implement next-generation reforms, such as adopting new farm technology that is environmentally friendly and climate resistant, developing a market for land development, and improving post-harvest procedures.

#### **REVIEW OF LITERATURE:**

1. Nishtha Agarwal (2021) in "Examining Select Issues in Indian Agriculture Supply Chain amidst COVID-19 Disruption" concludes that with the use of Information and Communication Technology, collaborating and coordinating with humanitarian supply chains along with getting help from the private sector units, The country can make the agriculture supply chain as a powerful one to fight the issues and challenges.
2. According to Sivanappan (2020), a significant amount of money may be saved for the country's treasury by modernizing the post-harvest processing that already exists and putting in place the necessary infrastructure facilities. This will also assist feed the nation's burgeoning population.
3. Deepanker Sinha (2018) in "Export performance of citrus fruits in India" mentions that there are numerous challenges faced by the exporters of agricultural products such as lack of proper infrastructure for exports, Quality problems in the global market, and multiple tariff and non-tariff problems. The study also suggests that if the government

effectively brings out development in its export infrastructure and takes necessary actions to lower the tariff rates, the export scenario would develop significantly.

4. Ulhas Bansode (2016) in the study "A Study of Agriculture sector in India" concludes that India's agriculture sector is highly expected to create better momentum in the upcoming years due to its increased investments in irrigation facilities, warehousing, and cold storage facilities. Factors such as reduced transaction costs and time, improved port gate management, and better fiscal incentives would also contribute effectively.
5. In the study, "Challenges faced by the Agriculture Sector in Developing Countries with Special Reference to India," Nidhi Dwivedy (2011) cites producer illiteracy, a lack of knowledge of the policies that are in place, a lack of technical expertise, fragmented and small landholdings, rural poverty, weather-dependent farming systems, and inadequate infrastructure as some of the difficulties the agriculture sector confronts.

#### **RESEARCH GAP:**

Based on the review of the literature, numerous studies have been done to examine the successes of India's agricultural industry. There were no studies that discussed the key problems and challenges facing India's agriculture industry with a focus on the country's export situation. A small number of studies that provide light on India's export performance during COVID-19 were also conducted. Therefore, this research paper concentrates on such unexplored areas.

#### **OBJECTIVES:**

This study mainly focuses on:

- i. Identifying the agricultural export performance of India
- ii. Finding out the possible challenges faced by the exporters of India's Agricultural commodities.

#### **RESEARCH METHODOLOGY:**

This study uses the **secondary data** collected from various Government sources such as the websites of Agricultural and Processed Food Products Export Development Authority (APEDA), RBI Statistics, Agricultural Outlook, Ministry of Agriculture & Farmers Welfare, etc. Some of the tools such as tables and bar diagrams are used to depict the collected data in a more representative form.

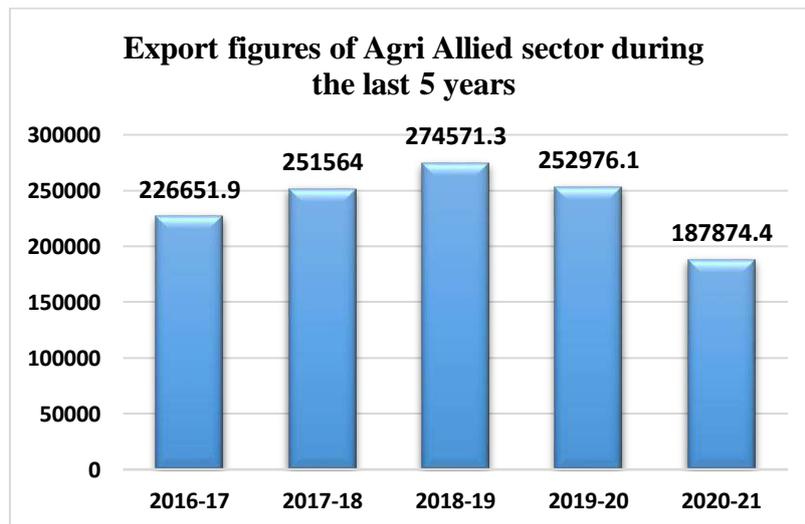
**DATA ANALYSIS AND INTERPRETATION:****1. EXPORT PERFORMANCE OF AGRICULTURAL PRODUCTS OF INDIA:**

In India, the production of foodgrains has increased extremely quickly, primarily due to rice and wheat. Numerous studies have demonstrated that the use of fertilisers, high-yielding varieties, and investments in government funded research have all significantly increased the productivity of Indian agriculture. However, a global comparison shows that India's crop productivity is far lower than that of many other rising market nations. When compared to other products on the market, agricultural commodities are often traded commodities in the international market. It is the product that took second position out of all the goods traded in the nation's export basket. The following table shows us the export performance of the products in the APEDA basket during the period of 2012-13 and 2021-22.

<b>EXPORT PERFORMANCE OF AGRICULTURE PRODUCTS</b>					
	<b>2012-13</b>		<b>2021-22</b>		
<b>Product</b>	<b>Qty in MT</b>	<b>Rs. Crore</b>	<b>Qty</b>	<b>Rs. Crore</b>	<b>% Change in Qty exported</b>
Non-Basmati Rice	403942.69	1023.37	1377896.41	3778.17	71%
Maize	3878425.99	5666.52	1462921.88	2994.96	-165%
Fresh Onions	530499.11	705	261366.29	731.91	-103%
Processed Vegetables	7461.49	44.43	79095.93	570.63	91%
Basmati Rice	13852.81	95.3	73528.82	512.43	81%
Processed Fruits, Juices & Nuts	8748.63	51.33	22853.59	175.39	62%

Poultry Products	7184.87	64.09	4280.24	124.17	-68%
Pulses	4633.1	29.14	13283.58	98.22	65%
Fresh Mangoes	894.32	5.65	401.08	8.22	-123%
Walnuts	142.8	4.93	0.79	0.04	-17976%
<b>Total</b>	<b>48,55,785.81</b>	<b>7,689.76</b>	<b>32,95,628.61</b>	<b>8,994.14</b>	
<b>Source: DGCIS (Compiled by the Authors)</b>					

From the above table, it can be inferred that the export of products like Basmati rice, non-basmati rice, millets, processed fruits and vegetables have seen a considerable growth in their exports over the years. Whereas the exports of fresh mangoes, poultry products, walnuts, maize, and fresh onions have been highly decreasing.

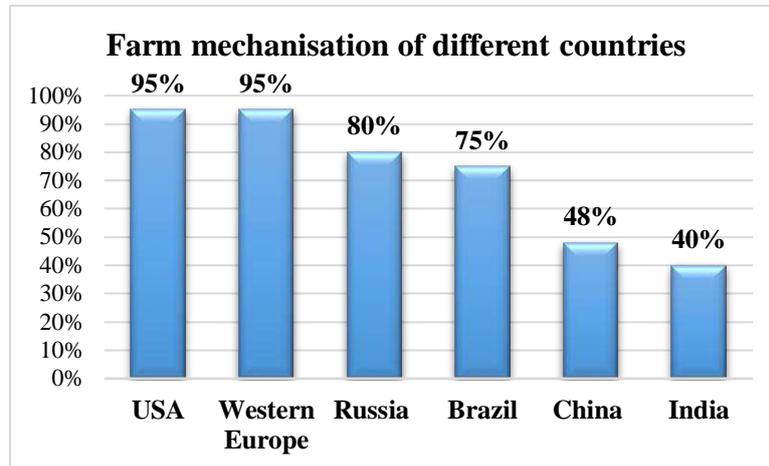


Source: Directorate General of Commercial Intelligence and Statistics (DGCIS) (Compiled by the Authors)

## 2. FARM MECHANIZATION:

The use of farm machinery has the potential to increase agricultural productivity by 30% while lowering input costs by 20%. (NABARD, 2018). Mechanized farming also shortens the time needed to complete farm tasks and lessens the inherent tedium of agricultural labour. According to various estimates, India currently has between 40 and 45 percent of its farms mechanised. This is an increase over previous years. On the other hand, despite the fact that the density of tractors has significantly expanded over time, the market for other agricultural

equipment, such as power tillers, rotovators, and transplanter, is still small and mostly unorganised (FICCI, 2017). India's level of farm mechanisation is far lower than that of other advanced economies and the Emerging nations, according to international comparisons. Small and dispersed land holdings lessen scale advantages and hence represent a significant barrier to increased and improved farm mechanisation in India.



Source: Agricultural Statistics at a Glance 2021, GOI. (Compiled by the Authors)

### 3. FRAGMENTED LANDHOLDINGS:

In India, the number of landholdings has grown over time, while the amount of land used for farming has decreased. The average size of holdings has significantly shrunk as a result. The average landholding size in the nation decreased from 2.28 hectares in 1970–1971 to 1.08 hectares in 2015–2016. Together, marginal, and minor holdings account for 86% of all Indian ownership. It is nearly impossible for farmers to invest profitably in tube wells, drip irrigation, storage, or bulk inputs because of the fragmented land occupation structure. Therefore, land consolidation is crucial to achieving greater efficiency.

### 4. INFRASTRUCTURE DEVELOPMENT:

A major factor in the expansion of exports is infrastructure. Transportation and cold storage facilities are the two main infrastructure facility-related challenges faced by exporters of agricultural products. Therefore, the APEDA may offer financial support for the development of infrastructure facilities such as cold storage and warehouses, or for private and public companies to raise funds for such projects. The following table shows the State/UTs with least capacity of cold storage facilities in India.

<b>COLD STORAGE CAPACITY AS ON 31.03.2022</b>			
<b>State/UTs with least capacity of Cold storage Facility</b>			
<b>S.No.</b>	<b>State/UTs</b>	<b>No. of Projects</b>	<b>Capacity (Metric Tonnes)</b>
1	Mizoram	3	3971
2	Andaman & Nicobar Islands (UT)	4	2210
3	Sikkim	2	2100
4	Pondicherry (UT)	3	85
5	Lakshadweep (UT)	1	15

**Source: Reserve Bank of India (Extracted & Compiled by the Authors)**

#### **FINDINGS FROM THE STUDY:**

1. It is essential that the tax system be made innovator and entrepreneur-friendly in major developing nations.
2. It is essential to stimulate private sector investments in agriculture considering that India's infrastructure is underdeveloped and official investments in it are relatively limited. Infrastructure must be connected in a coordinated manner as well.
3. India does not presently have a well-known brand for crops or food items in global markets. This can be achieved by focusing on a select few exportable goods and target markets (such as fruits for South Asian nations) and conducting a powerful marketing effort.
4. There is a shortage of suitable infrastructure. A proper and efficient infrastructure for storage and transportation of commodities must be developed.

#### **CONCLUDING OBSERVATION AND SUGGESTIONS:**

With record production of numerous foodgrains, commercial crops, and horticulture crops, Indian agriculture exports reached new heights, demonstrating resiliency, and maintaining food security during the COVID period. The industry, however, faced a few difficulties, the resolution of which necessitates an all-encompassing approach to policy. For instance, India's crop production is significantly lower than that of other developed and developing market

economies due to several variables, including fragmented landholdings, a lower level of farm mechanisation, and a lower level of public and private investment in agriculture. Even though many commodities are in surplus, food inflation and price volatility are still significant, which inconveniences consumers and results in unstable income for farmers. This study concludes that exports of agricultural items are steadily contributing less to total exports due to exporters' inadequate knowledge of global trade operations and inadequate infrastructure facilities.

#### **SCOPE FOR FURTHER RESEARCH:**

This study has identified the major factors which are posing as the constraints in the export of India's Agricultural commodities. The future researchers can conduct further research by finding out the state specific challenges in the pursuit of Agri-exports. There is also further scope for conducting prospective research on the challenges faced by the imports of Agricultural commodities.

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**ANALYSIS OF INVESTORS' PERCEPTION ON SUSTAINABILITY PRACTICES OF CORPORATE GOVERNANCE AND THEIR IMPACT ON ORGANISATIONAL PERFORMANCE OF SELECT ESG COMPANIES IN INDIA.**

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**ABSTRACT**

In recent years, ESG has become a focus area as a result of voluntary and regulatory initiatives. The government, various environmental authorities, creditors, shareholders, and investors have all recognised the value of ESG as a component of sustainable development. Thus, the purpose of the current study is to determine how ESG sustainability practices, that is, environmental, social, governance, and economic- affect stock performance. The Convenience Sampling method was adopted to collect the primary data and the data is collected from 110 respondents. Sustainability practises, particularly those that are social and environmental, are shown to be crucial for drawing in investors. The study revealed that there is a strong and positive relationship between the Sustainability Practices of Corporate Governance and Organisational Performance of ESG Companies. The study also found that out of five Sustainability Practices of Corporate Governance, 'Protection of Environment' Practices contributes more to the Organisational Performance of ESG Companies when compared with other practices. The results of the study contribute to the Corporate Governance Practices with respect to the Sustainability Management and Organisational Performance of ESG Companies in India.

**KEYWORDS:** Corporate Governance, Organisational Performance, Sustainability Practices, Economic, Social and Governance, Investors' Perception.

## **INTRODUCTION**

Sustainability practises are thought of as a type of management philosophy where companies are more likely to integrate social, economic, and environmental issues into their daily operations and engage with their stakeholders. We are seeing an accelerating movement in investor posture in favour of investing based on the ESG performance of companies in India as we inch closer to the start of a new decade. Through the use of sustainability strategies, businesses are held responsible for the environment and local communities in a way that benefits all stakeholders and lessens the negative effects of the company. For growing economies, the idea of sustainability is crucial for enhancing the nation's reputation. The study under consideration is crucial for comprehending how businesses have adopted sustainable methods that enhance the performance of the stock. It is certain to be advantageous for businesses that hope to gain from a more positive market perception as well as investors who prefer to park their money in sustainable assets. As a result, there is a significant link between the organisational performance of ESG Companies and Sustainability Practices of Corporate Governance. Consequently, the study's conclusion focused on this, and it included several recommendations for future research.

## **STATEMENT OF PROBLEM**

Investor interest in companies' activities related to investing in ESG companies has multiplied recently. While pursuing their objectives, corporations are supposed to leave no ill effects on the environment. Instead, the company's strategic planning and policies should be focused on the improvement and protection of the environment, which has the ability to boost the value of business.

## **OBJECTIVES OF THE STUDY**

- To identify the investment pattern of investors with respect to select ESG Companies in India.
- To analyse the investors' perception on the various Sustainability Practices of Corporate Governance adopted by the select ESG Companies in India.
- To examine the impact of Sustainability Practices of Corporate Governance on the Organisational Performance of select ESG Companies in India.

## **LITERATURE REVIEW**

The corporate sector has taken note of the growing emphasis on green or sustainable investment. The idea of environmental concerns, on which this essay is based, suggests that a company's green image may be able to maintain or increase its market value or generate income for its owners. (Madhu Bala, 2022). Stock performance and the effect of sustainability practises, as mediated through board member experience. The reports generated as a result of implementing sustainability practises aid in ensuring that the organisation is committed to its own green or sustainable policy. Businesses are now engaging with stakeholders on various sustainability topics with full thought, which is increasing. Additionally, they pay attention to stakeholder perspectives on various sustainable activities (Crane et al. 2019). Due to sustainable development and the pursuit of high-quality growth, environmental, social, and governance (ESG) issues have emerged as some of the most pressing and significant ones in recent years. As a result, everyone is focusing on these issues (Almeyda & Darmansya, 2019). Numerous academics have been inspired to investigate the connection between ESG and business performance as a result of the importance of ESG. These studies concluded different research conclusions such that Al-Najjar and Anfimiadou (2012) and Cek and Eyupoglu (2020) concluded that ESG has positive impact on firm performance.

## **LIMITATIONS OF THE STUDY**

The study has several restrictions. It was compiled from first-hand sources. Identification of the investors in the chosen ESG companies presented a hurdle for this study. Depending on the period of time covered by the data in the specific study and the statistical tools used to analyze it, different environmental rules and regulations had a mixed effect on the organization's performance.

## **RESEARCH METHODOLOGY**

Descriptive statistics include the numbers, tables, charts, and organize, summarize, and present raw data. In this study, Percentage & Mean Analysis, Correlation and Multiple Regression are also been used to describe and analyse the data. Inferential Analysis is concerned with making predictions or inferences and draw conclusions about a population from observations and analyses of a sample. Regression is the determination of statistical relationship between two or

more variables. In simple regression two variables are used. One variable (independent) is the cause of the behaviour of another one (dependent).

## RESULTS AND DISCUSSIONS

In this study, the secondary data of 110 respondents has been collected. The detail results of analyses are presented in this section.

### ANALYSIS OF DATA

In order to analyze and give the proper interpretation of data, the various statistical tools (Descriptive and Inferential) like Percentage & Mean Analysis, Correlation and Multiple Regression are applied in this study.

#### 1. INVESTMENT PATTERN WITH RESPECT TO ESG COMPANIES

**Table 1**

#### INVESTMENT PATTERN WITH RESPECT TO ESG COMPANIES

VARIABLES	OPTIONS	FREQUENCIES	(%)
Period of Investment	Upto 1 Year	21	19.00
	1 – 3 Years	26	24.00
	Above 3 Years	63	57.00
Average % of the total investments invested in the ESG Companies	Upto 25%	78	71.00
	26% - 50%	20	18.00
	Above 50%	12	11.00

**Source: Primary Data**

From the above table 1, it is inferred that with respect to Period of Investment in ESG Companies, 57% (63) of the investors invested for more than 3 years. 71% (78) of the investors made upto 25% of their total investments in ESG Companies.

#### 2. INVESTORS' PERCEPTION ON SUSTAINABILITY PRACTICES OF CORPORATE GOVERNANCE

The table 2 provides the information relating to the Investors' Perception on the various Sustainability Practices of Corporate Governance with respect to ESG Companies.

**Table 2**

**SUSTAINABILITY PRACTICES OF CORPORATE GOVERNANCE**

VARIABLES	N	MEAN	SD
Corporate Strategy Practices	110	11.68	3.795
Management of Resources for Sustainability	110	10.24	4.110
Protection of Stakeholders' Interest	110	12.75	2.754
Protection of Environment	110	13.33	2.223
Transparency and Disclosure of Information	110	12.21	3.251
<b>INVESTORS' PERCEPTION ON SUSTAINABILITY PRACTICES OF CORPORATE GOVERNANCE</b>	<b>110</b>	<b>60.21</b>	<b>5.987</b>

Source: Primary Data

From the above table 2, based on the mean score, it is inferred that Investors have more perception (out of the five Practices) on 'Protection of Environment' (M = 13.33) and have lesser perception on 'Management of Resources for Sustainability' (M = 10.24) than other practices of Corporate Governance of ESG Companies. The Overall Mean Score of the Investors' perception on the various Sustainability Practices of Corporate Governance of ESG Companies is 60.21 which is 80.28% (60.21 / 75 x 100) which is above 80%.

**INFERENCE STATISTICAL ANALYSIS**

**RELATIONSHIP BETWEEN SUSTAINABILITY PRACTICES OF CORPORATE GOVERNANCE AND ORGANISATIONAL PERFORMANCE**

**H<sub>0</sub>: There is no significant relationship between the Sustainability Practices of Corporate Governance and Organisational Performance of ESG Companies.**

A Pearson product-moment correlation was run to determine the relationship between the Sustainability Practices of Corporate Governance and Organisational Performance of ESG Companies.

**Table 3**

**RELATIONSHIP BETWEEN SUSTAINABILITY PRACTICES OF CORPORATE GOVERNANCE AND ORGANISATIONAL PERFORMANCE**

VARIABLES	N				REMARKS
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		'r' VALUE	P VALUE	RELATI ONSHIP	SIGNIFICANT	RESULT
Corporate Strategy Practices – Organisational Performance	110	0.615**	0.000	Positive	Significant	Rejected
Management of Resources for Sustainability – Organisational Performance	110	0.546*	0.010	Positive	Significant	Rejected
Protection of Stakeholders' Interest – Organisational Performance	110	0.801**	0.000	Positive	Significant	Rejected
Protection of Environment – Organisational Performance	110	0.856**	0.000	Positive	Significant	Rejected
Transparency and Disclosure of Information – Organisational Performance	110	0.788**	0.000	Positive	Significant	Rejected
SUSTAINABILITY PRACTICES OF CG – ORGANISATIONAL PERFORMANCE	110	0.743**	0.000	Positive	Significant	Rejected

Source: Primary Data \*\*. Correlation is significant at the 0.01 level (2-tailed).

As the P values are lesser than Sig. Value (0.01) in all the above cases, the Null Hypotheses are rejected. There are moderate to high positive and significant correlation between the Sustainability Practices of Corporate Governance and Organisational Performance of ESG Companies. Out of five Sustainability Practices of Corporate Governance, 'Protection of Environment' ( $r = 0.856$ ) has more relationship and 'Management of Resources for Sustainability' ( $r = 0.546$ ) has lesser relationship with Organisational Performance of ESG Companies than others. Overall, there is a strong positive relationship ( $r = 0.743$ ) between the Sustainability Practices of Corporate Governance and Organisational Performance of ESG Companies.

## MULTIPLE REGRESSION ANALYSIS

Multiple Regression was conducted to determine the best linear combination of the Five Sustainability Practices of Corporate Governance in order to predict the Organisational Performance of ESG Companies.

**Table 4**

### IMPACT OF SUSTAINABILITY PRACTICES OF CORPORATE GOVERNANCE ON ORGANISATIONAL PERFORMANCE

#### MULTIPLE REGRESSION ANALYSIS

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	0.759	.312		-4.118	.004
	Corporate Strategy Practices	.284	.068	.246	2.984	.008
	Management of Resources for Sustainability	.121	.073	.115	2.103	.033
	Protection of Stakeholders' Interest	.363	.054	.303	3.654	.000
	Protection of Environment	.389	.051	.362	4.965	.000
	Transparency and Disclosure of Information	.261	.062	.265	3.201	.000

**Dependent Variable: ORGANISATIONAL PERFORMANCE**

The combination of all the five independent variables significantly predicts the dependent variable i.e., Organisational Performance,  $F(5, 104) = 423.536$ , P values are lesser than 0.01 and 0.05 (Sig. Value 2-tailed) and Adjusted R Square is 0.703 or 70% which is large effect according to Cohen. Out of five independent variables, 'Protection of Environment' (0.362) is the strongest influencing aspect and 'Management of Resources for Sustainability' (0.115) weakest influencing factor in predicting the Organisational Performance of ESG Companies. From the unstandardized coefficient, it is found that the one unit increase in the 'Protection of Environment' would increase the Organisational Performance of ESG Companies by 0.389 units. Other Sustainability Practices of Corporate Governance also contribute to Organisational Performance of ESG Companies but lesser than 'Protection of Environment'.

## CONCLUSION & RECOMMENDATIONS

Other Sustainability Practices of Corporate Governance also contribute to Organisational Performance of ESG Companies but lesser than 'Protection of Environment'. From the study it shows there is a strong positive relationship ( $r = 0.743$ ) between the Sustainability Practices of Corporate Governance and Organisational Performance of ESG Companies. Hence, this proves that more investors must be motivated to invest in ESG companies since it contributes to the economical and environmental growth of the country,

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## FACTORS INFLUENCING POST-OFFICE SAVING SCHEMES

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### ABSTRACT

The post office savings bank is India's oldest and largest financial system. Savings are necessary for the nation's economy to grow and improve. The Indian postal service operates a global postal service system. When compared to other savings schemes, Indian post office savings has many advantages and various valuable benefits. Small savings schemes offered by post offices have grown in popularity among the general public looking to invest their money in government-backed instruments. The post office savings schemes in India provide a safe, risk-free, and attractive investment opportunity for small investors. Post offices provide a number of savings plans, including Savings Bank Accounts, Post Office Savings Deposit, National Savings Certificate, Post Office Monthly Income Plans, Senior Citizen Plans, Recurring Deposit Plans, Sukanya Samridhi Accounts, and many others. This study mainly focuses on identifying factors influencing to invest in post office savings schemes. The finding and concluding observations are Investment without risk, Minimal deposit needed to open an account and Minimum and Maximum Deposit Term influences the post to avail the Post office Saving Schemes.

**KEYWORDS:** Attractive Investment Opportunity, Global Postal Service System, Government-backed Instruments, Influencing Factors, Post Office Savings Schemes, Valuable Benefits.

### INTRODUCTION

Post office savings schemes have been a reliable and popular investment option for many individuals, particularly in developing countries like India. For those who live in areas without banks, the Indian Post Office assists people in depositing their money in post office savings schemes. Post offices provide a number of savings plans, including Savings Bank Accounts, National Savings Certificate Accounts, Post Office Monthly Income Plans, Senior Citizen

Plans, Recurring Deposit Plans, Sukanya Samridhi Accounts, and many others. In general, 50% of adults have accounts with one or more banks, post offices, or both. 12% of adults have accounts with both banks and post offices, and 3% of adults have accounts with just the post office. Worldwide, 28% of adults use postal services to send money home and make payments. This is due to various reasons, like the fact that these schemes offer a relatively low-risk investment option with the added benefit of being backed by the government. Post Office Savings Schemes are secure, risk-free investments with a high return on investment. This research paper aims to explore these factors that influence people's decisions to invest in post office saving schemes.

## REVIEW OF LITERATURE

**Drishya S Raj and Dr. A. Dharmaraj [2022]** Conducted A Study on “The Rural Investors Perception Towards Post Office Savings Schemes with Special Reference to Chellanam Area, Ernakulam District”. According to their findings, women are more interested in postal savings schemes than men. The author suggests that the government should take initiatives to educate investors about various plans for pooling investment from their savings.

**Dr. Rajeshwari M. Shettar [2021]** Conducted A Study on “Financial Services from Indian Post Office”. His research investigated the extent of investor awareness of post office saving schemes, as well as the variables driving investors to prefer post office saving schemes. It was discovered that prompt service is a significant factor perceived by investors.

**Dr. S. Santhana Kamala [2020]** Conducted A Study on “Post Office Saving Schemes in Thoothukudi District”. According to his research, parents are particularly interested in and satisfied with the Post Office Savings scheme. He advocated that the post office develops a number of new child-related programmes to make it easier for parents to support their children's school and marriage expenditures.

**Dr. A. Benazir [2020]** Conducted A Study on “Parent’s Perception towards Post Office Saving Schemes –With Special Reference to Palayamkottai Region”. According to his research, parents are very interested and satisfied with depositing their savings in the Post Office Savings scheme. He proposed that the post office implement a number of new child-related programmes so that parents can easily fund their children's school and marriage expenses.

**Manish Sharma<sup>1</sup> and Hima Bindu Kota [2019]** Conducted A Study on “The Role of Working Women in Investment Decision Making in the Family in India”. In their study highlighted the role of working women in investment decision-making. Postal savings schemes, bank deposits, 5-year tax-saving FDs, life insurance, real estate, and mutual funds were the most popular investment products among respondents.

### RESEARCH GAP

A review of the literature reveals that many studies have been conducted to study the general investor attitude toward the various postal schemes, often ignoring the reasons for it. So, this study focuses on filling that gap by analyzing the various factors that are influencing investors to invest in post office savings schemes.

### OBJECTIVE

To study the factors influencing to invest in post office saving schemes.

### RESEARCH METHODOLOGY

<b>TABLE-1</b>	
Sample area	Chennai
Sample design	Convenience Sampling
Sample size	100
Period of study	JANUARY 2023
Statistical tools	Simple percentage, Charts
Research instruments	A Google Forms-based structured questionnaire that was self-prepared was distributed.
Collection of data	Primary data – Questionnaire Secondary Data – Research Journals, articles, websites.
Source: Compiled by the Authors	

## DATA ANALYSIS AND INTERPRETATION

<b>Demographic Profile</b>		
<b>Table 2. Gender</b>		
	<b>Frequency</b>	<b>Percentage</b>
Male	33	33.0
Female	67	67.0
<b>Total</b>	100	100.0
Source: Primary Data Analysis		

**Interpretation:** The majority of investors (67%) are female, with 33% being male, out of 100 respondents.

<b>Table 3. Age</b>		
	<b>Frequency</b>	<b>Percentage</b>
Below 20	53	53.0
21-30	36	36.0
31-40	8	8.0
41-50	2	2.0
51-60	1	1.0
Above 60	0	0
<b>Total</b>	100	100.0
Source: Primary Data Analysis		

**Interpretation:** The majority of the 100 respondents were under the age of 20, with 36% being between the ages of 21 and 30.8% in the age group 31–40. It was found that only 1% of respondents were in the age group 51–60, while 0% were in the age group above 60.

<b>Table 4. Monthly Income</b>		
	<b>Frequency</b>	<b>Percentage</b>
Below 10000	20	20.0
10001-20000	13	13.0
20001-30000	8	8.0
30001-40000	5	5.0
Above 40000	2	2.0
still not earning	52	52.0
<b>Total</b>	100	100.0
Source: Primary Data Analysis		

**Interpretation:** The study revealed that 20% of respondents are having monthly income below 10000. 13% of the respondents are having monthly income between 10001- 20000, 8% are earning income between 20001-30000, only 5% of the respondents are earning between 30001-40000 and 52% are still not earning.

<b>Table 5. Educational Qualification</b>		
	<b>Frequency</b>	<b>Percentage</b>
School level	10	10.0
Diploma	6	6.0
Undergraduate	77	77.0
Post Graduate	10	10.0
Others	3	3.0.
<b>Total</b>	100	100.0
Source: Primary Data Analysis		

**Interpretation:** It was observed that 10% of the respondents are post graduates whereas 77% are undergraduate. About 10% of the respondents have completed their schooling alone while 6% are diploma holders ,3 % are from other background.

<b>Table 6. Occupation</b>		
	<b>Frequency</b>	<b>Percentage</b>
self-employed	5	5.0
Private	15	15.0
Government	9	9.0
Homemaker	7	7.0
Student	63	63.0
pensioner	1	1.0
<b>Total</b>	100	100.0
Source: Primary Data Analysis		

**Interpretation:** From the above table it was observed that 15% are private employees, 63% are students and 9% are government employees and 5% are self-employed. Only 7 % of the respondents are home maker and 1 % are pensioners.

<b>Table 7. Marital status</b>		
	<b>Frequency</b>	<b>Percentage</b>
Married	17	17.0
Unmarried	83	83.0
<b>Total</b>	100	100.0
Source: Primary Data Analysis		

**Interpretation:** From the above table it was observed that the majority of the respondents are unmarried (83%) and only 17% of them are married.

<b>Table 8. Amount of savings per month</b>		
	<b>Frequency</b>	<b>Percentage</b>
Below 2000	62	62.0
2001-4000	20	20.0
4001-6000	9	9.0
above 6000	9	9.0
<b>Total</b>	100	100
Source: Primary Data Analysis		

**Interpretation:** According to the study, 62% of respondents had a monthly income of less than 2,000, 20% saved between 1,000 and 4,000, and 9% saved between 4,000 and 6,000 per month.

<b>Table 9. No. of years of savings in post office saving schemes</b>		
	<b>Frequency</b>	<b>Percentage</b>
below 1 year	62	62.0
1-3 years	17	17.0
3-5years	14	14.0
above 5years	7	7.0
<b>Total</b>	100	100.0
Source: Primary Data Analysis		

**Interpretation:** Of the 100 respondents, 62% have post office savings accounts for less than a year, 17% have accounts for 1-3 years, 14% have accounts for 3-5 years, and only 7% have accounts in the post office for more than 5 years.

<b>Table 10. Source of knowledge about Post office saving schemes</b>		
	<b>Frequency</b>	<b>Percentage</b>
Relative/ friends	38	38.0
Advertisement	8	8.0
Agents	6	6.0
Post office employees	14	14.0
Parents	34	34.0
<b>Total</b>	100	100.0
Source: Primary Data Analysis		

**Interpretation:** From the above table, it was observed that the majority of the respondents learned about the post office savings scheme through relatives or friends; 8% of the investors learned about it through advertisements; 6% through agents; 14% through post office employees; and 34% learned about it through their parents.

<b>Table11. Factors influencing to invest in post office savings schemes</b>
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	Frequency	Percentage
Minimal deposit needed to open an account	33	33.0
Minimum and Maximum Deposit Term	21	21.0
Investment without risk	36	36.0
Convenience	15	15.0
Tax Refund Received	15	15.0
Account Opening is Simple	11	11.0
Savings Security	19	19.0
favorable interest	11	11.0
reinvestment facility	6	6.0
<b>Total</b>	100	100.0
Source: Primary Data Analysis		

**Interpretation:** According to the above table, the majority of respondents are influenced to invest in post office savings schemes because it is a risk-free investment; 33% of investors chose post office saving schemes because it required only a small deposit to open an account; 21 percent are influenced by the minimum and maximum deposit terms; 15 percent choose due to the tax refund benefit received and for the convenience; 19% chose them due to the security of post office savings schemes, and 11% were influenced by the favorable interest rate provided and the simple account opening process. Only 6% are influenced due to the reinvestment facilities.

## FINDINGS FROM THE STUDY

From the study, it was found that investors are highly interested and satisfied with depositing their savings in the Post Office Savings Scheme. The majority of the respondents learned about the post office savings scheme through relatives or friends. The most important factor influencing the popularity of post office savings schemes is found to be interest rates. The level of risk associated with a scheme was found to be the most significant factor influencing its popularity. Schemes that are considered to be less risky tend to be more popular among investors. The majority of the respondents felt that the minimal deposit requirement for post office savings schemes is a great feature as it allows people of all financial backgrounds to take advantage of these schemes and start building a better future for themselves.

## CONCLUSION AND SUGGESTIONS

The present study has highlighted the various factors that influence the success of post office savings schemes. According to the findings of the study, interest rates, risk, flexibility, tax refunds, trust, and a small deposit are important factors in determining the popularity of these schemes. The post office savings schemes have a wide range of security measures in place to ensure the safety of your investments. Additionally, post office savings schemes also come with the added benefit of being easily accessible and convenient, allowing people to easily access their savings and manage their investments. This research has provided a comprehensive understanding of the various factors that influence the success of post office savings schemes. Promoting post office savings schemes through a variety of channels and tactics, like publicity campaigns, offering incentives, and providing good training for post office agents, can help to increase awareness and attract new investors.

## SCOPE FOR FURTHER RESEARCH

Further study can be conducted to explore the impact of economic conditions on post office savings schemes. This would include analyzing the effects of changes in economic conditions such as recession, inflation, and unemployment on the popularity of post office savings schemes.

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## **EMPLOYEE'S ADAPTABILITY TOWARDS NEW JOB POSITIONS WITH KNOWLEDGE MANAGEMENT STRATEGIES**

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### **ABSTRACT**

Today's organizations are facing dynamic and changing environments that emphasize the importance of enhanced organizational flexibility and adaptation. Increased competition, changing markets, innovation, and advances in technology are some of the forces that require organizations to continuously change and develop. In turn, this fast pace of environmental and organizational change implies heightened pressure on employees to be increasingly adaptable, versatile, and tolerant of uncertainty in order to perform effectively in new or changing work situations.

The study on the influence of employees' adaptability and change-related uncertainties on their interpretation of organizational actions. Employees portrayed expressions of individual adaptability, uncertainty experienced regarding changes in the workplace, support received from the organization, and Job satisfaction. Knowledge Management (KM) has become critical in today's highly competitive, uncertain, and rapidly changing business environment. The effects include:

Knowledge management processes (knowledge acquisition, knowledge sharing, knowledge creation and knowledge retention) and Knowledge Management approaches (social networks, codification and personalization) on job satisfaction and examines how they help employees adapt to new job positions and increase their efficiency.

**KEYWORDS** Adaptability- Uncertainty- Perceived Organizational support- Organizational change.

## INTRODUCTION

The competency to successfully adjust to a changing work context is generally referred to as “individual adaptability. “Individual adaptability is widely acknowledged as a key quality for today’s employees, and has even been proposed as a third type of job performance in addition to task and contextual performance.

Ployhart and Bliese (2006) define individual adaptability as representing “an individual’s ability, skill, disposition, willingness, and motivation, to change or fit different task, social, and environmental features. “Individual adaptability appears to be conceptually related to the process of adaptation, which is the evolutionary process whereby a population becomes better suited to its habitat. Adaptation is supposed to help organ-isms adjust to a changing and/or demanding environment and as such contribute to the survival of the species.

**SURVIVAL OF THE FITTEST:** Over 150 years since Darwin wrote ‘On the Origin of Species’, researchers are still fascinated by how we as a species adapt to change. Today our ability to survive isn’t dependent on surviving a freezing winter or snaring a mammoth, but on our capacity to deal with the constant social and technological change that is a reality of modern life.

Individuals need to not only meet the unexpected and changing demands of their role, but to transfer their existing skills and knowledge to new, unpredictable situations. And some people are better at it than others.

An employee’s ability to deal with change, as well as personality traits which mapped on to the well-established Big Five (extraversion, agreeableness, emotional stability, openness and conscientiousness). Crucially, they distinguished between reactive responses to change – dealing with a change which is being ‘done to’ you – and proactive responses – behavior which drives or initiates change.

After further research it was discovered that it is ambition which drives people’s ability to respond well to change. People who are ambitious are more likely to proactively change their environment and seize opportunities to improve the status quo – perhaps as a means to get ahead. What’s more, the effect of ambition was stronger for managers than for employees.

Key points for employees to focus on for adapting to new work positions or change at work place:

- Harbor a desire for status and power while remaining calm and even-tempered are best able to cope with change.
- Inculcate ways to regulate their emotions and stay calm, to deal with changes to their environment.
- Spot opportunities to influence your surroundings – proactively seeking improvements can help get ahead.

## WHAT ARE KNOWLEDGE MANAGEMENT STRATEGIES?

A knowledge management (KM) strategies include:

- **Motivated behavior**-While managing change, focus needs to be pointed on how to keep motivation of workers up. Several researches and observations have shown that well motivated employees are more productive and creative. On the other hand less motivated employees do not want to contribute into work.
- **Networking**- Internal networking ensures employees work together more often, giving them a chance to speak with co-workers and learn about how they can be of value to one another. Networking allows you access to opportunities you might not be able to find on your own. Your network has the potential to provide you with insight into different fields that help you improve professionally.
- **Link company goals and individual goals**- While accomplishing individual goals is important on a personal level, it is also advantageous to link those individual goals into an organization's comprehensive strategy. Doing so can aid accountability, allow for analysis and evaluation, and diversify your risk.
- **Teamwork** - Working together a team can apply individual perspectives, experience, and skills to solve complex problems, creating new solutions and ideas that may be beyond the scope of any one individual. As well as enhancing organizations' performance, good teamwork benefits individuals too. Personal rigidity does not mix well with teamwork.

- **Analyze and activate**- analyzing and screening of opportunities to prove oneself in the new job positions. Listing out areas of contribution that keeps you occupied and engaged in the new role. Activation of timely response to commitment during crises.
- **Criticism as constructive feedback** - Constructive criticism in the workplace can help employees understand what they are doing well and what they need help with. Benefits include professional development, clarified expectations, stronger working relationships and overall organizational growth.

Application of these knowledge management strategies by employees to adapt to new job positions may increase the ease of work and increase the confidence of the employee, thereby increasing overall productivity.

## REVIEW OF LITERATURE

According to Findings of Kristin L Cullen (2014) , results support the role of perceived organizational support as a mediator of the relationship between employees' adaptability and perceptions of change-related uncertainty and employees' satisfaction and performance.

Kevin Murphy, (2014) (Colorado State University) puts forth that the world of work is changing rapidly, and adaptability to change is becoming a key driver of success in the workplace. David Chan has assembled a distinguished team of authors to examine what adaptability means, how it can be measured, how it can be developed and what its implications are for both organizations and individual employees.

## OBJECTIVES OF THE STUDY

- ❖ To identify various factors that affect employees in the new job positions
- ❖ To study the various challenges faced by employees to adapt to new job positions within the same company or in another company
- ❖ To analyze the role of knowledge management strategies towards increasing the efficiency of employee performance in the new job.

## SCOPE OF STUDY

This study is focused on determining various methods adopted by employees to adapt to new job positions along with implementation of knowledge management strategies to increase

efficiency and productivity by conducting a survey among the employees working in various departments like marketing, human resource, finance, management, public relations, business roles and so on.

## **RESEARCH METHODOLOGY**

- ❖ A research study was conducted in Bengaluru city urban by selecting a sample of 100 respondents. The study uses primary data as well as secondary data.
- ❖ The research method adopted for this study includes both structured & unstructured methods.

## **PRIMARY DATA**

- ❖ In this study the researcher has collected primary data from employees working in public and private sectors.
- ❖ The data was collected by a well-structured questionnaire prepared with all the important details regarding employees' adaptability towards new job positions.
- ❖ The questionnaire was administered directly to the respondents through scheduling methods as well as interview methods.
- ❖ The respondents were both men and women.

## **SECONDARY DATA**

- ❖ It has been collected from various records that talk about employee satisfaction at a new job position and journals on knowledge management strategies followed by various companies.

## **SAMPLE DESIGN**

The present study analysis the adaptability of employees towards new job positions from a sample of 100 respondents from different job roles in urban Bangalore City through simple random sampling method.

## LIMITATION OF THE STUDY

- ❖ Time was a constraint as we had a very limited time period.
- ❖ Different sectors had different working conditions and it was difficult to frame questions that generalize work roles.
- ❖ Few respondents did not respond to the questionnaire.

## FINDINGS

- ❖ Majority of the respondents are male respondents with respect to the study and majority of the respondents are of the younger population who are below the age of 25 years and as most of the respondents are young and therefore their marital status is unmarried.
- ❖ Most of the respondents experience new job positions very often as per the survey.
- ❖ Most of the respondents do not find it easy to adapt to new job positions.
- ❖ Majority of the respondents are unaware of the knowledge management strategies.
- ❖ Most of the respondents find opportunity screening as the most effective knowledge management strategies based on the survey.

## SUGGESTIONS

- ❖ The companies must focus more on keeping their employees comfortable to increase the overall performance and efficiency.
- ❖ Employees must be aware of the knowledge management strategies and implement them to maximize potential.
- ❖ The organization should analyze the areas of discomfort of an employee when given a new job position.
- ❖ The coworkers must be welcoming in order to keep the employee comfortable and adapt to the new job position and the company must keep the surroundings safe and secure for the employees to work without any hassle.
- ❖ There should be occasions that shall help the employee get along with the management and connect with others.

## CONCLUSION

From the above survey we find that most of the employees experience new job positions very often and find many obstacles while having to adapt in the new work environment with new responsibilities. Knowledge management strategies shall be very useful in helping the employees to increase their efficiency in their workplace and boost the confidence of an individual. The companies must focus on implementing these knowledge management strategies effectively to all the employees to bring out the best from them, and hence increase the company's overall performance. Keeping the employees comfortable and satisfied is the key for a successful organization.

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## A STUDY ON PERCEPTION & PATRONIZATION OF CENTRAL BANK DIGITAL CURRENCY (CBDC)

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### ABSTRACT

Digital currencies and cashless societies are gaining popularity because of the introduction and development of cryptocurrencies and block-chain technology. Thus, government-backed digital currencies are being explored by central banks and governments worldwide. Central Bank Digital Currencies (CBDCs) are digital tokens that are issued by a central bank and are close to cryptocurrencies. The prime purpose of CBDCs is to offer financial security, privacy, transferability, convenience and accessibility to businesses and consumers. The Reserve Bank of India (RBI) is issuing the Digital Rupee, a tokenized version of the Indian Rupee. This study focuses on the public perception of CBDC in India during the RBI's "Digital Rupee" pilot stages. The study also focuses on the factors that influence the "Digital Rupee" during its initial stages. The survey indicates that many people continue to have questions or concerns regarding CBDC's safety precautions. The findings and concluding observations will be disclosed in the descriptive form.

**KEY WORDS:** Block-chain technology, Cashless transactions, Central Bank Digital Currency, Digital Rupee, Economy's stability, Influencing factors, Public perception.

### INTRODUCTION

Money has evolved in so many ways ever since it was invented. Money has now assumed a new form known as digital currency. The COVID-19 pandemic played a huge role in the widespread use of digital transactions. The increasing popularity of blockchain and cryptocurrencies has led many countries to implement Central Bank Digital Currency (CBDC). A CBDC is a central bank-issued digital currency. It is the digital form of a country's fiat

currency. India is now in the pilot stage of CBDC. A concept note was released in October, and CBDC was launched in November 2022. India is following a phased implementation strategy to rectify errors as they occur.

### **Digital Rupee**

The Reserve Bank of India (RBI) is issuing the Digital Rupee, also known as the e-INR or E-Rupee, which is a tokenized digital version of the Indian Rupee. The RBI's CBDC is interchangeable one-to-one at par with the fiat currency and functions just like a sovereign currency.

### **Types of CBDC:**

There are two categories of Central Bank Digital Currency: general purpose or retail (CBDC-R) and wholesale (CBDC-W). Everyone, including the private sector, non-financial customers, and businesses, can use retail CBDC. Wholesale CBDC is made to only be accessed by a restricted number of financial institutions.

The wholesale CBDC is created for the settlement of interbank transfers and related wholesale transactions, whereas the retail CBDC is an electronic equivalent of cash primarily intended for retail transactions.

## **REVIEW OF LITERATURE**

1. (Guo Wu\*, 2022) “Research on factors affecting people’s intention to use digital currency” aids in identifying critical elements influencing the use of CBDC and gives policymakers and regulators a thorough picture of user perspectives.
2. (Kulkarni, 2022) “Public perception of the Digital Rupee in India” states the perception of the digital rupee among people in India before it was implemented there.
3. (Rastogi & Jhudele, 2022) “How RBI’s design choices will affect the demand for e-rupee” states the reasons for the implementation of CBDC and its advantages against cash and UPI.
4. (Reserve Bank of India, 2022) has explained the motives, types, features, forms, and models of Digital Rupee.
5. (Seth, 2022) “What is a Central Bank Digital Currency (CBDC)?” explained the issues addressed and goals aimed by the government.

## **RESEARCH GAP**

Review of the literature reveals that a study was conducted on the public perception of the digital rupee before its launch. This study aims to fill the gap by finding out the perception of the digital rupee/CBDC after its launch in India. This study also aims to identify the factors influencing the digital rupee.

### OBJECTIVES OF THE STUDY

1. To find out the perception and patronization of CBDC.
2. To determine the factors that influence 'Digital Rupee' during its initial stages.

### RESEARCH METHODOLOGY

<b>Table 1 Research Methodology</b>	
Sample area	Chennai city
Sampling method	Simple Random Sampling
Research Design	Descriptive Study
Sample size	100
Period of study	December 2022- January 2023
Research Instrument	A self-prepared structured online questionnaire using Google Forms
Collection of Data	Primary data- Questionnaire Secondary data- Articles, journals, and blogs
Source: Compiled by the Authors	

### DATA ANALYSIS AND INTERPRETATION

The demographic profile of the respondents shows that out of a total of 100 respondents, 35% were male and 65% were female; 22% fell under the age group of 20 years, 52% fell under the age group of 21–30 years, 7% were from 31–40 years of age, and the remaining 19% were above 40 years of age. Out of 100 respondents, 3% have had school-level education, 61% were undergrads, 31% were postgrads, 1% were PhD holders, and the remaining 4% were doing diploma courses. 49% of the respondents were students, 7% worked in private entities, 5% in public entities, 11% worked for the government, 7% were homemakers, and the remaining 21% were self-employed. Out of 100 respondents, 51% have a monthly income below Rs. 10,000, 11% have a monthly income of Rs. 10,000–Rs. 20,000, 10% have a monthly income of Rs.

20,000–Rs. 30,000, 5% have a monthly income of Rs. 30,000–Rs. 40,000, and 23% have a monthly income of Rs. 40,000 or more.

**1. Awareness of CBDC**

<b>Table 2 Awareness of CBDC</b>		
Options	Respondents	Percentage
Yes	75	75
No	25	25
Total	100	100
Source: Primary Data Analysis		

Are you aware of the CBDC/ Digital Rupee?  
100 responses

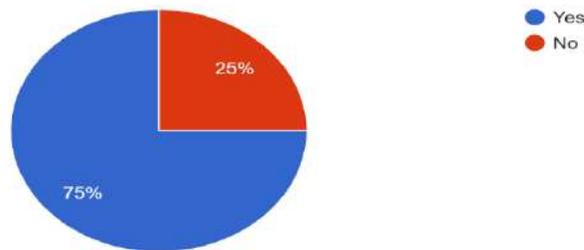


Chart 1 Awareness of CBDC

**Interpretation:** The study reveals that 75% of the respondents are aware of Central Bank Digital Currency while 25% are not aware of what it is.

## 2. Digital transactions vs. physical cash transactions: preference based on security

Which form of transaction do you feel is more secure?

100 responses



**Table 3 Digital transactions vs. physical cash transactions: preference based on sense of security**

Options	Respondents	Percentage
Digital Transactions	56	56
Physical cash transactions	44	44
Total	100	100

Source: Primary Data Analysis

Chart 2 Digital transactions vs. physical cash transactions: preference based on sense of security.

**Interpretation:** From this study, it was observed that 56% of respondents felt that digital cash transactions were more secure than physical cash transactions.

## 3. Perception of CBDC among people

Digital currencies make transactions:

**Table 4 Perception of CBDC among people**

Options	Faster	Easier	Safer	Cheaper
Strongly agree	49	44	14	18
Agree	40	43	27	32
Neutral	10	12	48	34
Disagree	1	1	10	13

Strongly disagree	0	0	1	3
Total	100	100	100	100
Source: Primary Data Analysis				

Digital Currency makes transactions:

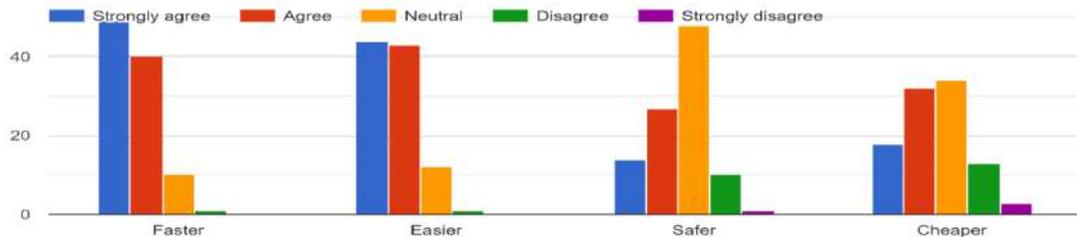


Chart 3 Perception of CBDC among people

**Interpretation:** From the above table, the study shows that around 45% of the respondents prefer digital currency because it makes transactions faster and easier. This study also shows that people are still skeptical about the safety of digital currencies.

**4. Assistance CBDC provides the government to regulate cryptocurrencies— Perception**

Table 5 Assistance CBDC provides the government to regulate cryptocurrencies— perception		
Options	Respondents	Percentage
Yes	24	24
No	10	10
Maybe	66	66
Total	100	100
Source: Primary Data Analysis		

Can CBDC help the Government regulate Cryptocurrencies?

100 responses

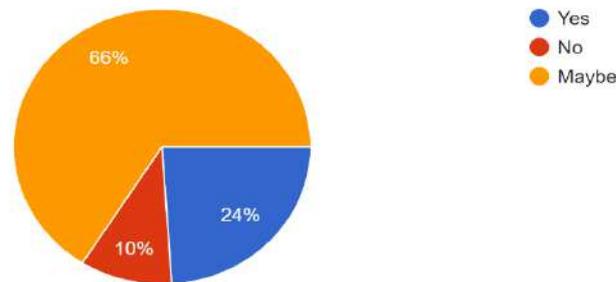


Chart 4 Assistance CBDC provides the government to regulate cryptocurrencies—perception.

**Interpretation:** From the study, it was observed that people are not yet familiar with the features and benefits of CBDC. Thus, people are not sure how CBDC will regulate cryptocurrencies. Further, we are not sure how cryptocurrency will evolve in the future. So, we can say that CBDC's regulations on cryptocurrency are still evolving.

### Factors influencing Digital Rupee

People's intentions to use digital currency are positively impacted by financial literacy, perceived value, openness to innovation, and perceived convenience.

Although a general-purpose CBDC might be a better option than cash in some circumstances, a central bank introducing one would need to make sure that it complied with anti-money laundering and counter-terrorism financing (AML/CFT) regulations as well as other supervisory and tax regimes' public policy requirements.

### FINDINGS FROM THE STUDY

This study shows that many of the respondents are aware of Central Bank Digital Currency (CBDC). The majority of people residing in Chennai prefer digital transactions over physical currency transactions in terms of security. People in Chennai are not aware of the characteristics of CBDC yet, which could be because CBDC is still in its pilot stages in India.

### CONCLUSION AND SUGGESTIONS

CBDC is the digital form of physical currency created by the government to reduce the risks of using decentralized digital currencies. India has the youngest workforce in Asia, which

wants to complete tasks quickly and effectively. This cutting-edge technology could make it easier and more convenient for people to make payments. CBDC, though has many merits and motives, people do not know why it is developed and the merits and drawbacks. This study shows that a lot of people are still skeptical about its safety measures. Education should be provided about CBDC and its features to create awareness among people.

### SCOPE FOR FUTURE RESEARCH

This study shows the perception of people in Chennai, India, about CBDC during its initial stages. Further studies can be done on the future developments made in CBDC as the government uses a phased implementation strategy.

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## A STUDY ON INFLUENCING FACTORS OF FOOD DELIVERY APPLICATIONS FOR THEIR RECENT GROWTH

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### **ABSTRACT**

Globally, the online food delivery industry is expanding quickly. Today, all eager entrepreneurs are anticipating entering the food market to test their skills and abilities. Food delivery apps have disrupted the established order and provided a practical answer to the issue of hectic work schedules preventing people from going out for a good restaurant. Although the adoption of food delivery apps must take into account a number of other factors, the shift away from traditional techniques is mostly driven by customer happiness and perceptions of these apps. This paper comprises preference of consumers behavior towards Dine-ins over online food delivery applications. This research seeks to find out the factors that are influencing the growth of online food delivery applications. This study concludes that most of the people have preferred dine-ins as their major choice which shows that the online food delivery apps must make changes in their marketing strategies as well as they should come up with more influencing factors to attract its customers to prefer food delivery apps. The findings and concluding observations will be disclosed in the descriptive form.

**KEY WORDS:** Consumer behavior, factors influencing, online food delivery applications.

### **INTRODUCTION**

The development of internet food delivery services dates to the time of ancient Rome (753 B.C. – 476 A.D.). The Romans adored quick meals, and they gave their fast-food restaurants the name Thermopolium. Similar to how fast food is offered now, they kept the food warm while serving it from enormous clay pots at a counter.

Under British rule, India created the dabbawala meal delivery system in crowded cities like Mumbai some 125 years ago. This meal delivery system utilized delivery persons known as dabbawalas in response to the rising number of workers in cities. Direct food delivery was made by the dabbawalas to customers at their place of business. The complex food delivery

system is now more up to date, and customers use text messaging and email to access the service. The TV was the most popular invention of the 1950s. People were more inclined to eat at home and spend time together while watching their favorite shows as more households acquired their own televisions. As a result, the bottom lines of eateries were steadily declining. Many eateries developed carry-out and delivery services to fight their declining business. Food delivery has grown into its own industry, with numerous internet platforms competing for market share. The process of delivering meals has changed as a result of the development of digital technologies. Customers are now placing their orders online and through restaurant apps rather than physically coming to the restaurant. A change in the business model being implemented by restaurants is one of the factors contributing to the expansion of online ordering and meal delivery. The expansion of online ordering and meal delivery is partly a result of changing customer preferences. Since the advent of the digital age, people have become used to doing everything including ordering food online. The usage of mobile apps by restaurant patrons to place online food orders is gradually taking over.

## REVIEW OF LITERATURE

1. **Dr. Mallikarjun, Kopal Hiren Dekat, Dr. G. Naga Rama Devi, Dr. Ashok Kumar Koshariya, Dr. Renuka Sagar, Dr. Nikhilesh** (2021) “Factor Influencing Economic Growth of Online Food Ordering and Delivery Application During Covid-19”, contained detailed about the characteristics that influences the online food delivery applications.
2. **Junbin Wang, Xiangdong Shen, Xinbei Huang, Yuting Liu** (2021) “Influencing factors of the Continuous usage Intention of Consumers of Online Food Delivery Platform based on an Information System Success Model”, helped to find out the influencing factors and formation mechanism of Online food delivery platforms.
3. **Kyungyul Jun, Borham Yoon, Seungsuk Lee, Dong-Soo Lee** (2021), “Factors Influencing Customers Decisions to Use Online Food delivery Service during the COVID-19 Pandemic”, it helped to find out the theoretical and managerial implications that contribute to the online food delivery services industry.
4. **Vinay Kumar** (2020) “Factors influencing customer satisfaction of online food delivery apps”, helped to find out how website quality influence customer satisfaction while using food apps.

5. **Ye-Eun Song, Sang-Hoon Jeon and Min-Sun Jeon** (2017) “The Effect of Mobile Food Delivery Application Usage Factors on Customer Satisfaction and Intention to Reuse”, helped to find out that the informativeness of the delivery apps influences customer satisfaction and reuse intention.

## RESEARCH GAP

Review of literature reveals that there are many studies carried to study the factors influencing customer satisfaction of online food delivery applications. This study mainly focuses on the factor that attracts the customer to order food through online food delivery applications.

## OBJECTIVES OF THE STUDY

To determine whether consumers are aware of online food delivery applications as well as whether they prefer ordering food through online food delivery applications over dining – in restaurants as well as the factors influencing the growth of online food delivery applications.

## RESEARCH METHODOLOGY

<b>Table-1 Research Methodology</b>	
Sampling areas	Chennai City
Sampling methods	Simple random sampling
Research Design	Descriptive study
Sample size	100
Period of the study	January 2023
Research Instruments	Self- prepared structured online questionnaire using survey method
Collection of data	Primary data- Questionnaire Secondary data- Journals, articles, web blogs

Source: Compiled by the Authors

## DATA ANALYSIS AND INTERPRETATION

Demographic profile of the respondent shows that out of the total 100 respondents 28% fall under the age group of 20 years whereas 39% fall under the age group of 20-30 years. 18% of the respondents from 31-40 years of the age and the remaining 15% respondents were above 40 years old. There were 34% male, and 66% female respondents taken for the study. Out of 100 respondents, 7% belong to high school, 57% belong to under graduation, 20% belong to post graduation, 9% belong to diploma course, and remaining 7% belong to other courses that were taken for the study. There were 13% who are working as self-employed, 17% in the private sector, 7% Government, 54% students, and the remaining 9% have chosen others. Out of 100 respondents, 57% have their monthly income below Rs.10000, 13% of the respondent have Rs.10000- Rs.20000, 10% of the respondent have Rs.21000- 30000, 9% of the respondent have their income between 31000-40000, and the remaining 11% of the respondent have a family monthly income of above 40000.

### 1.Awareness about Online food delivery apps:

<b>Option</b>	<b>Respondent</b>	<b>Percentage</b>
Yes	96	96
No	4	4
Total	100	100
Source: Primary Data Analysis		

**Interpretation:** From the above table, the study reveals that 96% of the respondents are aware of what online food delivery apps are while 4% of the respondents are not aware of what it is. This shows that the food delivery apps have a good marketing of their service to the people for the growth of the industry.

### 2.Preference towards dine-in or food delivery apps:

<b>Table 3 Preference towards dine-in or food delivery apps.</b>		
<b>Option</b>	<b>Respondent</b>	<b>Percentage</b>
Dine-in	65	65
Food delivery apps	35	35
Total	100	100
Source: Primary Data Analysis		

**Interpretation:** From the above table, the study reveals that 65% of the respondents prefer dine-in restaurants while 35% of the respondent prefers ordering through food delivery apps. This shows that the food delivery apps must improve their marketing strategies for the growth of the industry.

### 3.Factors attract to order food through food delivery apps:

<b>Table 4 Factors attract to order food through food delivery apps.</b>		
<b>Options</b>	<b>Respondent</b>	<b>Percentage</b>
Easy to use	45	14
Catchy advertisement	32	10
Diverse Menu	33	10
Reasonable discount	40	13
Convenience	44	14
Time saving	41	13
Staying Indoors	43	13
Flexibility	42	13
Total	320	100
Source: Primary Data Analysis		

**Interpretation :** From the above table, the study reveals that 14% of the respondent use food delivery apps to order food at any time of the day, primarily in Chennai where many of the restaurants are open for over 18 hours every day, 10 % of the respondent attracted towards its catchy advertisement, 10% of the respondent prefers for diverse menu, 14% says it is easy to use, 13 % of respondent attracted to its reasonable discount, 14%, 13%, and 13% uses it as it is convenience, time saving and likes to stay indoors. The main factors which attract the respondent to use food delivery app convenience as they could order from any place.

#### 4.Amount of order placed in a month:

<b>Table 5 Amount of order placed in a month.</b>		
<b>Options</b>	<b>Respondent</b>	<b>Percentage</b>
0-5	54	54
5-10	21	21
10-15	10	10
15 or more	15	15
Total	100	100
Source: Primary Data Analysis		

**Interpretation:** From the above table, the study reveals that 54% of the respondent are placing 0-5 of the order every month, 21% places between 5-10 orders a month, 10% of the respondent places order between 10-15, while the remaining 15% places orders more than 15 in a month. This shows that the food delivery apps should concentrate more on their marketing strategies to increase the number of orders for a month which helps the industry to expand more.

### 5.Respondent satisfaction on services provided by food delivery apps:

<b>Table 6 Respondent satisfaction on services provided by food delivery apps.</b>		
<b>Option</b>	<b>Respondent</b>	<b>Percentage</b>
Highly satisfied	64	64
Satisfied	32	32
Not satisfied	4	4
Total	100	100
Source: Primary Data Analysis		

**Interpretation:** From the above table, the study reveals that 32% of the respondents are Highly satisfied with the services provided by the food delivery apps, 64% of the respondents are satisfied with the services, and the remaining 4% are not satisfied with the services provided by the food delivery apps. This shows that the food delivery apps should concentrate on services provided to make the customer highly satisfied with the services.

### FINDING FROM THE STUDY

**Demographic profile** – The majority of the respondents of the study were female from the age group of 20-30 years who are pursuing and have completed their undergraduate degree.

**Online Food delivery apps** - The majority of respondents are aware of what online food delivery apps are. The majority of the people residing in Chennai City prefer dine-ins over online food delivery apps due to numerous reasons. The main factor which attracts the respondents to prefer Food delivery apps, as it is easy to use. Majority of the respondents are satisfied with the services provided by the food delivery apps.

**Improvements-** Most of the respondents have preferred dine-ins as their major choice which shows that the online food delivery apps have to make changes in their marketing strategies as well as they should come up with more influencing factors to attract its customers to prefer food delivery apps.

## CONCLUDING OBSERVATION AND SUGGESTIONS

The growth of online food delivery apps has gradually increased post COVID-19 as people had a restriction to stay indoors. After the pandemic people still preferred to order food through online food delivery apps due to its convenience, flexibility, and ease of use. But most of the people still prefer Dine- ins which shows that the food delivery apps must concentrate more on the marketing strategies to improve their business.

## SCOPE FOR FURTHER RESEARCH

This study has identified the major factor determining why consumers prefer online food delivery apps. The future researchers can conduct research on factors affecting food delivery apps for their growth and what can be done to resolve these factors. The researchers in the future can find out the change in consumer behavior due to changes made by the online food delivery apps in future.

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# A STUDY ON FINANCIAL STRUCTURE AND ITS IMPACT ON HOUSEHOLD INVESTMENT

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## **ABSTRACT**

This study examines long-term variations in household investment and financial structure. The paper initially looks at how money market rates are passed over to different bank retail rates and assesses how this has changed over time for household investments. The descriptive comparison of financial structure and household investment demonstrates that the best investment opportunities can influence a person to become more self-made in the future, but only when they choose the best investment option based on their own decisions.

## **1. INTRODUCTION**

Investment is the commitment of funds which is saved from consumptions which are made on a current basis with the hope of future benefits. The economic growth of the country largely depends on investment, so to improve its economic condition countries should promote the savings habit of people in the country.

Investment behaviour is the behaviour of the investors while investing in any investment options. The investment behaviour is related to various activities of individuals based on searching, evaluating, acquiring, reviewing the investment products.

As we know investment is a crucial act in which people participate after getting knowledge about the particular act. People prefer to invest in safe and secure investment avenues. People with different age group prefer to invest in different investment avenues, as young people prefer to invest for income regularity and future obligation, in case of old age people prefer to invest for retirement planning, children education, children marriage and in other obligations. In case females prefer to invest in safe investment such as gold, Provident Fund and many more, and for males, they prefer to invest in equity shares, debentures, mutual funds, precious metals, different commodities, and others.

Investors have a variety of avenues to invest their money, the choice and selection of avenues depends upon their risk and return profile, then only the rationally planned profitable investments of investors can add value to their individual satisfaction and towards the national economic growth. Rational planning means corrective decision making. In the present context, the decisions taken by the family decision makers on behalf of family members is very much influential in developing individuals' financial behaviour.

### **1.1. FAMILY STRUCTURE**

Family is considered as the decision maker for many economic activities. The way in which the whole family is organised is known as family structure. The family remains as the central element in our contemporary life. In India context the family act as a complex and dynamic institution. Family provides security, companionship, and a measure of protection against an often-uncaring world. As the years pass, the family structure has undergone significant changes. There are various variations of family structure it includes, the nuclear family, extended family, working parent, single parent, older parents, much older siblings, younger parents, step families, and adoption. Whatever your particular family situation, it will have tremendous influence upon its members happiness, development, and future.

### **1.2. HOUSEHOLD INVESTMENT**

The house hold investment means, the investment made by households for the benefit of whole family, with an aim of meeting their future expenses at known date in future or for creating savings for retirement or creating wealth. The savings of household sector are reflected in their investments through various financial instruments issued by intermediaries like banks and financial institutions and government. In our country, apart from such savings in financial instruments, a component of physical saving is also estimated for incorporating the household expenditure on house construction, for purchasing gold by households on a large scale to meet exigencies of consumption and other expenditure in future.

Economic models dominate the research on financial decisions such as income, spending, savings, borrowing, asset accumulation, and investing, mostly at individual or household levels. In the traditional utility model, the household is assumed to operate as one decision-making unit, pooling resources together to maximize utility (Bernasek & Shwiff, 2001), so in assumption to this model, the head of household makes financial decisions on behalf of other household members (Becker, 1981). Single households differ from married households or

those with children in making financial decisions, because marital status and children affect needs, resources, risks, and preferences of individuals (Love, 2010).

The arrangement of literature suggests that the family structure plays an influencing role in household financial decisions which leads towards the household investment. As family plays a key role in decision making, they consider all the members in the family and must give preference to their needs, and also the final decision maker should consider the future expenses too.

## 2. REVIEW OF LITERATURE

**2.1 Juan R. de Laiglesia & Christian Morrisson (2008)**, In their study 'HOUSEHOLD STRUCTURES AND SAVINGS: EVIDENCE FROM HOUSEHOLD SURVEYS', examines the relationship between household structures, the institutions that shape them and physical and human capital accumulation using household and individual data from China, Indonesia, Côte d'Ivoire and Ghana. This paper includes new family structures which are very much unknown to Asian culture, it is called extended households and/or polygamous ones, such household structures are found in African countries. They proposed three hypotheses concerning the extended versus nuclear, polygamous versus monogamous and single headed households. The first hypothesis results that the extended households save less than nuclear ones when the ratio of inactive persons to total number of persons is higher. In urban zones of Ghana and Indonesia, wealth per capita in extended households exceeds that of nuclear ones, but in rural areas wealth per capita is same. In case of second hypothesis, it results that the net value of assets per capita is lower for polygamous households than for monogamous households. As the polygamy increases fertility and, by leading to larger households, leads to lower incomes per capita, this means when household size increases the head of the family cannot increase the resources in proportion to household consumption. But in monogamous households, the wealth per capita is significantly larger than in polygamous. And in third, for single-headed households, it includes divorced or separated heads of household who is having substantially low assets, and wealth per capita is higher than in monogamous households.

They opined that polygamy is negatively related to capital accumulation and wealth per capita is significantly lower in this households even after controlling for income, age and literacy of the household individuals. Also, they had found that education enrolment rates are never higher but frequently lower in these households.

**2.2 Supriya Singh and Mala Bhandari (2012)**, In their study ‘Money Management And Control In The Indian Joint Family Across Generations’, examines the money management and control in middle-income nuclear and joint family households in urban India and shows the importance of examining the flow of money within the Indian family context because there is a two-way flow of money beyond the married couple between parents, adult children, siblings and other members of the family which is extended. This study mainly links towards the ideology of male domination over controlling money which is found among the middle, lower middle and struggling households, particularly in developing cities. But in case of upper middle-class households it shows a pattern of joint and independent control, also it mainly focuses on couple’s money in the family. Their studies were mainly taken place in metropolitan, pre-urban and small-town family households in Delhi. They mainly focus on the flow of money within the family on the basis of family context and also the generational dimensions of money, like sharing of money with different genders and generations in the family and their earning capacity.

The domination of men in controlling the money is nearly seems in half of their households they studied. The male control was accompanied by male management where the woman received money by ‘irregular dole’. Mainly the male control of money was found in households where the ideology of male dominance is still prevailing.

The sign of joint and independent money control and management were found in low proportion. It is mainly found in higher income households where the women are the paid workers and they earn an independent income. They also promote the relative influence and demographic spread of ideologies and world views by placing Western ideology of marriage as an equal partnership and giving importance of independence in relationships in a more global context.

**2.3 Nathridee Suppakitjarak and Piyarat Krishnamra(2015)**, In their study ‘Household Saving Behaviour And Determinants Of The Forms Of Saving And Investment In Thailand’, investigates the household savers of saving level, saving objectives, forms of saving, the determinants of the forms of saving, including consistency between the risk-return concept and the investing decision in Thailand. They took place this study by considering inadequate sign in business sector, as the average of saving growth in Thailand is at 4.5% per year but the

investment growth is at 9.5% per year. The results demonstrate that the average saving rate was 29.17% of income and they were familiar with many forms of saving and investments available in the country.

The research mainly taken place within educated married females of 60.26 per-cent and 38.74 per-cent of males having average age of 47 and out of this 59 per-cent have children and 68.73 per-cent stay in their own houses and their average income is 81.836 Baht per month, and it is understood that, the savers in Thailand mainly invest in conventional saving forms like bank deposit, insurance policies, gold and properties than in financial assets such as government bond, mutual fund, corporate bonds and stock; their main purpose of saving was for post-retirement spending, health expenditure, travel and for the benefits of their heirs. Also, they are affected by certain factors which affect savings decision are return, risk, convenience, financial literacy and ease of access. They had found that from 100 per-cent of disposable income majority of income is invested mainly in real estate and gold and following with savings in bank, mutual fund, common stock, government bond, and corporate bond. It is understood that savings through financial instruments in capital market is low. As they believe that investing in real estate and gold has less risk but get similar return to investing in mutual fund, stock and bond.

The result show that saver decision in Thailand in investing in financial instruments such as mutual fund, corporate bond, equity fund and insurance resulting from tax advantage. Hence, regulator should not abolish the tax advantage to investor, also the result shows that family has more effect to saving decision and bank staff also influence saving decision because bank branch is quite convenience to saver. Hence bank staff should give more knowledge to investor or should they have professional at their bank branch to give investor information.

**2.4 M. Selvakumar & N. Manicka (2015),** In their study ‘A Study of Investment Behaviour of Households in Virudhunagar District’, analyses the investment behaviour of household in Virudhunagar District. It studies the investor’s awareness and attitude towards the various investment avenues, primary consideration of households for making investment, factors which attract households towards chit funds and the reason for non-attractiveness of shares as an investment option.

They chose the convenience sampling method to collect the data from 200 respondents and majority of respondents belong to nuclear family and only 13% of respondents belong to join

family. Out the total respondents 51% of investment decisions are taken by consulting with family members and remaining 49% are taken by the male members. Also, they had found that the marital status of respondents has significant impact on their savings and investments. It is also found that majority of respondents' savings for investment, but they are not regular in making investment as they are not interested in taking high rate of risks so they mainly invest low risk investment avenues. The majority of them mainly invested in chit funds and insurance policies then follows the bank deposits and post office savings, avenues like shares, bonds, have the least investments.

According to their study it is understood that the most of the households are interested in investing towards risk free and safety investment avenues which are influenced based on social economic factors education, income, family income, standard of living and other daily expenses.

**2.5 Orestes P. Hastings & Daniel Schneider (2019),** In their study 'Family Structure and Parental Investments: Economic Resources, Commitment, and Inequalities in Financial Investments In Children', suggest that family structure plays an important role in shaping children's future through different financial investments that parents make for their children's development. Their work illustrates the difference in the extent and causes of inequalities in the family in parental investments for children. This study is mainly taking place about the family structure in United States, which in turn give importance to their future labour force.

In this research the authors mainly examine the data from Consumer expenditure survey (CEX) from 2003-2017 to find the heterogeneity in family structure in parental investments in caring, schooling, and enriching their children, for that they compare the differences between married, living together, and single parents and they test associations between family structure and financial investment on the basis of disparities in economic resources and difference in long term relationship.

They analysis the 3 family structures and each structure show the different results in making parental investments, they firstly compare on the basis of their parental expenditures, economic resources, grandparent's presence and other demographic factors. On an average the married parents have higher post-tax and transfer incomes, following with living together as both the couples can be salaried persons and single parents have the lowest income as their expenditures are more as they have grandparents with them. Secondly, they use regression model to identify the effect of family structure on parental financial investment in children, in this case the

married households spend more than in the case of single parents and living together households.

So, both the theory and empirical part of their research suggest that family structure plays an important causal role in children's life through the differential financial investments that parents make for their children's development.

## **FINDINGS OF THE STUDIES**

1. Every household prioritise their retirement, health expenditure, future uncertainties, children's education, future benefits to their heirs as their main objectives for their investment.
2. The investment decision can vary from different family structure and even by each member in the family.
3. The main factors which affect the investment behaviour of households are return, risk, convenience, easy accessibility and financial literacy.
4. Many of the households find to more attractive towards investing in Real estate and gold, also majority of rural households used to invest in chit funds than in bank deposits and post office savings.
5. Some of the household investors do not invest in such instruments which are not familiar to them or those instruments which are of minimum requirement.
6. Majority of households took a conservative approach towards investment decision, so they will not invest in shares.
7. The family has more power in taking the saving decision, along with them the financial institutions will also influences the households by providing attractive services.
8. In urban areas household investors mainly invest in bank deposits.
9. If the financial institutions have improved their selling channel towards these households it will help them to reach more towards capital market.
10. The old age people are more sensitive towards asset returns.
11. The governments' and other regulatory bodies can interfere in the household life and family in the form of certain regulations issued by them.
12. Various socio-economic factors like education, family income, standard of living, employment have influencing relation on household investment.

13. The ideology of male dominance over investing decisions is still prevailing in certain households.
14. Every family member can contribute towards the household investment, even children can contribute if they are receiving money as gifts.
15. Through certain studies it is clear that in a nuclear family the women is organising the money for day to day expenses based on the needs of the family, so the women take a great role in deciding the investment decisions, and in joint families male control was prevailing.
16. The pattern of money control and money management is mostly found in higher income families where women is also earning an independent income same as that of men.
17. Household investment can differ in case of married couples, living together, and in case of single parent family. In this case the married couples can earn more savings after their expenses, then follows the living together family and least can earn by single parent family. As the expenditures are more in case of single parent family this is because only one person is earning income and majority of family expenses are met by the single parent itself. Therefore, single and living together parents invest less as compared to married parents.

## CONCLUSION

Our family is our strength as it plays the most influential role in developing a person. The best investment avenues can influence a person to be more self-made towards future. But it is possible only when the person selects most suitable investment option based on the decisions taken by him. For taking a decision a person requires an influencing power. When the family members play influencing role in making investment; it is jointly termed as a household investment.

Financial decisions are mostly taken place among family members based on their family structure. In our country majority of families are termed as nuclear families in which the elder male person will be the chief wage earner and the spouse will control the money management on the basis of their daily expenses including educational expenses of their children; if any. Most of the families in Indian scenario are belongs middle income group, they mainly try to earn saving out of their income and try to invest in risk free high return investments.

In case of joint family, the overall power is within the male member only, he will decide for the whole family in managing the money and their investment. Further, a number of families in urban areas try to invest mainly in bank deposits, post office savings, real estate and in gold. Considering rural households, they find chit funds as the major investment option.

It is also found in the review that the Structure of family differs in United States and certain African regions. In US, married parents are the highest earners so they make greater financial investments than living together and single parent family. In Africa, the polygamous families; as the number of members are more; their per-capita income is less, hence they won't make any investment decisions. But in the case of extended families in Africa, as their wealth is more, they frequently find various investment avenues. Hence, based on the literature reviewed, it is concluded that the role of cultural backgrounds, women, old age parents and children in the family influence the investment decisions among households.

### **SCOPE FOR FUTURE RESEARCH**

There are only limited data available on role of family structure in household investment decisions in the Indian context. Hence there is a scope for researches on the role of whole family, the Chief wage earner, Women members in the family and the children in taking financial decisions which influences the investment behaviour of a family.

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## “A STUDY ON ENHANCEMENT OF EMPLOYEE PRODUCTIVITY THROUGH NON- MONETARY INCENTIVES”

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### **ABSTRACT-**

The purpose of this study is to investigate the role of incentives in Kerala. We used the Social Sciences Program (SPSS) Statistics statistical analysis. For the purposes of this study, samples were randomly selected from working people consisted of 30 in number. The sample respondents were 30 employees who received questionnaire with 11 questions. Key findings show that employees provided with the right level of incentives like mix of both monetary and non – monetary or majorly monetary has affected in increase in the employee satisfaction and performance. However, monetary incentives ranked first on impact on employee performance, and non-monetary stands last.

**KEYWORDS** – employee satisfaction, performance, incentive mix

### **1.1 INTRODUCTION**

Employees are the resources of an organization Value and treat your people well, your company will succeed and reap the benefits. Employees champion your business and determine the success or failure of it. The work they do determines what customers and partners see, so it's important for you to treat your employees with the value they bring. Employees leading an organization might be able to be replaced physically, but their skillsets and knowledge can't be. Organizational productivity is directly linked to the employees and their performance. Monetary benefits are by default considered as the driving force or the core element for employee satisfaction. It is one of the major factors that will enhance employee productivity but non – monetary factors influence the same both directly and indirectly. Hence the study in conducted on enhancement of employee productivity through non – monetary incentives.

### **1.2 STATEMENT OF THE PROBLEM**

This study has been carried out on the title “ENHANCEMENT OF EMPLOYEE PRODUCTIVITY THROUGH NON-MONETARY INCENTIVES”. This study helps to

understand the contribution ratio between monetary and non – monetary incentives in improving employee performance, different strategies and methods used by companies to reach peak productivity and which among the two results in increases the employee performance, thereby increasing the organizational productivity.

### **1.3 SCOPE OF THE STUDY**

The study is confined to knowing the contribution of non – monetary factors in employee productivity within an organizational scenario.

### **1.4 OBJECTIVES OF THE STUDY**

The study has the following objectives:

- To analyze the employee satisfaction by gender
- To analyze the employee satisfaction through monetary incentives
- To identify the level of satisfaction of respondents by occupation.

### **1.5 HYPOTHESES**

- HO – There is no significant relationship between gender of respondents and non-monetary incentives.
- HO- There is no significant relationship between occupational sector of respondents and satisfaction from non-monetary incentive.

### **1.6 RESEARCH METHODOLOGY**

- SOURCE OF DATA  
PRIMARY DATA

Primary data is collected from respondents by administering a structured questionnaire and also through personal interviews.

**SAMPLE SIZE :** Data collected from 30 employees from various commercial organizations.

**SAMPLE AREA :** Kerala

**SAMPLE METHOD:** The research is made through questionnaires to the employees/respondents.

## 1.7 LIMITATIONS

- ❖ The study is limited to Kerala
- ❖ It is conducted based on accessibility and convenience only.

## 2.1 LITERATURE REVIEW

1. Abdulkhaleq Nader Qader (2021) in his study “The Effect of Non – Monetary Incentives and Work Environment on Employee’s Job Satisfaction.”- investigates on the effect of non – monetary incentives and work environment on employee’s job satisfaction. According to him, A stratified random sample, which was chosen, consisted of 234 academic staff from a population of 601 people. Analytical descriptive approach and SPSS were used. The overall study indicated that non – monetary incentives are positively correlated with job satisfaction, which was proven statistically.
2. Alessandro M Peluso, Laura Innocentia, Massimo Pilate (2017) in their study “Pay is not everything: Differential effects of monetary and non – monetary rewards on employee’s attitude and behaviors” – portrays that both monetary and non – monetary rewards have been considered together under the HRM perspective.
3. Alkhaliel Adeeb Abdullah, Hooi Lai Wan (2013) in their study “Relationships of non – monetary incentives, job satisfaction and employee performance” – indicates the theoretical and empirical evidence conceptually regarding the relationship between two types of incentives. This study concludes that there is a highly positive response comparatively when variety of non – monetary incentives are put forward.
4. Hanna M Sittenthaler, Alwine Mohnen (2020) in their study “Cash, non- cash, or mix? Gender matters! The impact of monetary, non- monetary , and mixed incentives on performance”- projects that the standard economic concept asserts that cash incentives are always better than non-cash ones. But after the study, gender base differentiation highlights a different monetary incentives on performance. It was found that men work significantly higher from monetary incentive and women work significantly higher from non-monetary incentives.
5. Richard A Guzzo (2000) in his study “The effects of psychologically based intervention programs on worker productivity: A meta-analysis”- studies on the meta-analysis

effects on work performance of 11 types of psychologically based organizational interventions raised worker productivity by nearly one-half standard deviation. Each type of method gave each result which concluded that performance depends on the range on benefits incurred from various incentives, no matter if it's monetary or non-monetary.

6. Michael Armstrong, Helen Murlis (2007) in their study "Reward management: A handbook of remuneration strategy and practice" – studies on the psychological reward policies and financial reward policies in an organization. Incentives in concern with futuristic benefits such as shares, tax benefits etc.. are introduced which resulted in increase in employee satisfaction as compared to monetary benefits.
7. Rajiv D Banker, Gordon Potter, Dhimu Srinivasan (2000) in their study "An empirical investigation of an incentive plan that includes nonfinancial performance measures" – studies on the trading methods and use of nonfinancial measures such as product quality, customer satisfaction and market share in performance measurement. Using time series data for 72 months from 18 hotels they concluded the study that both financial and non-financial incentives improve performance but only if monetary incentives are followed by non-monetary as well.
8. Anton Schlechter, Nicola Claire Thompson, Mark Bussin (2019) in their study "Attractiveness of non-financial rewards for prospective knowledge workers: An experimental investigation". – Gives out with 23 full factorial experimental design utilized with two questionnaires that non-financial elements were found to have statistically significant main effects on employee's perseverance to job offerings. Gender was also found to have a prominent effect proving that, non-monetary benefits satisfied women more than men.
9. J. Jyoti (2016) in her study "non-monetary benefits and its effectiveness in motivating employees"- portrays those monetary benefits are a highly motivational measure but there are some things that money can't buy . This study refers to Maslow's Need Hierarchy theory to relate with the needs and wants of people. The conclusion of this

study is that loyal and dedicated employees are generated through providing nonmonetary benefits rather than monetary benefits.

10. Michael Silverman(2014) in his study – “ Non Financial recognition”- highlights that no company can rely only on financial reward nor only on non-financial reward. It is important for the organization to make simplistic assumptions about financial rewards to indirectly motivate employees to work more. Financial incentives are crucial as a technique to retain talent.

**4.1 ANALYSIS & INTERPRETATION**

**Non-Monetary v/s gender**

T-test

	Levine's Test for Equality of Variances		t-test for Equality of Means						
	F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
								Lower	Upper
Equal variances assumed	0.982	0.33	-0.861	28	0.397	-0.698	0.811	-2.36	0.964
nonmonetary Equal variances not assumed			-0.931	18.32	0.364	-0.698	0.75	-2.273	0.876

**Interpretation**

The second hypothesis of the study refers to the significant relationship between the gender of the respondents and satisfaction from non-monetary incentives. By passing T- test, the p value found is 0.33 which is greater than the significance level 0.05. This leads to acceptance of null hypothesis and rejection of alternative hypothesis i.e; there is no significant relationship between the gender and satisfaction from non-monetary incentives.

**Occupational sector v/s non-monetary**

level of satisfaction on organization

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	.935	1	.935	.939	.341
Within Groups	27.865	28	.995		
Total	28.800	29			

### Interpretation

The third hypothesis of the study refers to the significant relationship between the occupational sector and satisfaction from monetary incentives. By passing anova test, the p value found is 0.341 which is greater than the significance level 0.05. This leads to acceptance of null hypothesis and rejection of alternative hypothesis i.e., there is no significant relationship between the occupational sector and satisfaction from non- monetary incentives.

## FINDINGS AND SUGGESTIONS

### 5.1 FINDINGS

1. There is no significant relationship between gender of the respondents and satisfaction from non-monetary incentives.
2. There is no significant relationship between occupational sector and satisfaction from non-monetary incentives.

### 5.2 SUGGESTIONS

1. Researchers can study on finding out cost effectiveness of different incentives and rewards used by organizations
2. The researcher should consider the current economic crisis with an aim to analyze the balance between short term and long-term productivity outcomes.
3. The researcher should come up with recommendations to be used by the management to reassess the combination of financial and non-financial incentives that can serve their organizations goal.

## CONCLUSION

Conclusively, the result of this study has shown that pay incentive significantly increases employee productivity. Substantial reward and compensation of workers for their contributions further enhances their work productivity and thereby of organizations'. The effect through non-monetary activities impacts substantially on their work productivity as it increases their motivation levels to perform better and be of more use to the organization.

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and task employee's productivity and further places and thereby promotes the overall employee's productivity of the organization.

Non pay incentives significantly correlates with employee employee's productivity: tested at a 95% confidence the results reveal that organizational practices aimed at the support, and focus on the wellbeing and

employee's productivity at a 95% confidence interval. The results of the analysis support employee's productivity and productivity. **BIBLIOGRAPHY**

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# PRESERVING PRIVACY IN OPEN SOCIAL NETWORKS USING CRYPTOGRAPHY - A REVIEW

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## ABSTRACT

In recent era, security plays a major role in data communication due to the increase of the intruders in alteration and eavesdropping to the sensitive data. Hence, cryptography is the fundamental tool used to protect these data. The main aim of using cryptography is to achieve privacy via preventing data communication in readable format and vice versa. This paper presents a thorough review of different security and privacy threats and existing solutions that can provide security to social network users.

**KEYWORDS:** Open Social Network(OSN), cryptography, security

## 1. INTRODUCTION

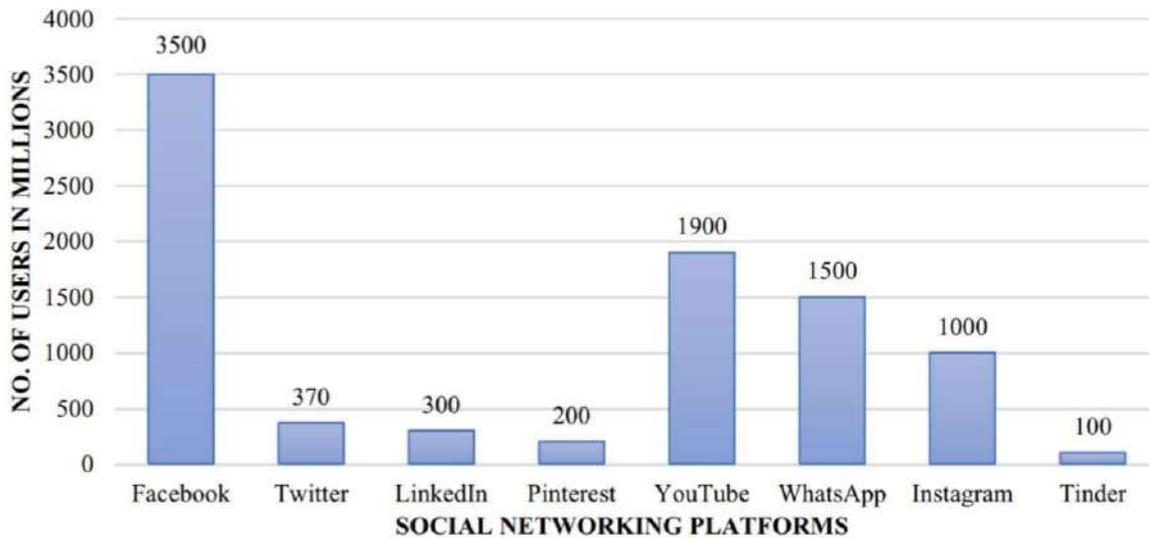
Open Social networking sites (OSN) are a sort of Web 2.0 locales that empowers clients to make online records that capsules their profiles. There are a bunch of sites that furnish individuals with the potential chance to make an internet-based profile and to impart that profile to other people [1]. It can likewise be characterized as electronic administrations that permit people to; build either a public or semi-public profile inside a bounded framework, articulate a rundown of different clients in the framework whom they share data, view or navigate the rundown of system and those made by others in the framework [2]. Some famous SNSs are Facebook, Twitter, MySpace and LinkedIn. Interpersonal interaction Destinations have furnishes clients with stage for building up and keeping up with connections from various marks of life. The majority of these SNSs are specific and devoted to specific fields of life which incorporates foundations, research, strict, labour force, and social stages. Pretty much every individual who is PC proficient is on one informal community or the other. Truth be told, the advances made in cell phones innovation are step by step extending the deluge of clients onto the vast majority of the accessible interpersonal organizations. Cryptography is provides

security on confidential Data and prevents a third party from disclosing the information [3, 4]. Cryptosystem is a process where plaintext is encrypted through a mathematical procedure called encryption algorithm and a secret key. The output is called ciphertext. Then, the unreadable text transmitted through a communications channel. The encrypted form prevents eavesdroppers of intruders from learning secret message. To protect from data leakage different privacy preservation methods are used to modify original data [9, 10]. Based on the security threats that confronts users of social networking sites, though they had provided users with enormous benefits, this paper concentrates on tackling some of the major security issues that may not lie on the side of the user to combat or mitigate them. These security solutions are deployed in ensuring user authentication, sustaining confidentiality and integrity of information in SNS.

## 2. OVERVIEW OF USAGE OF SOCIAL NETWORKING SITES

Web 2.0 comprises of social networking sites. And these social media includes, though not limited to, Facebook, MySpace, LinkedIn, Twitter, YouTube, Google+, Flickr, Bing, Ning, Skype, MyChurch, CyWorld, Skyblog and others. Some of the functionalities that are typically provided their users for the purpose of interaction or data communication are chat, messaging, email, video, voice chat, file sharing, blogging and discussion groups [12, 13]. They attracts users based on the nature of the service been rendered by their sites. Facebook has three most popular features of Facebook are ability to add friends, update status and run applications such as games [14].

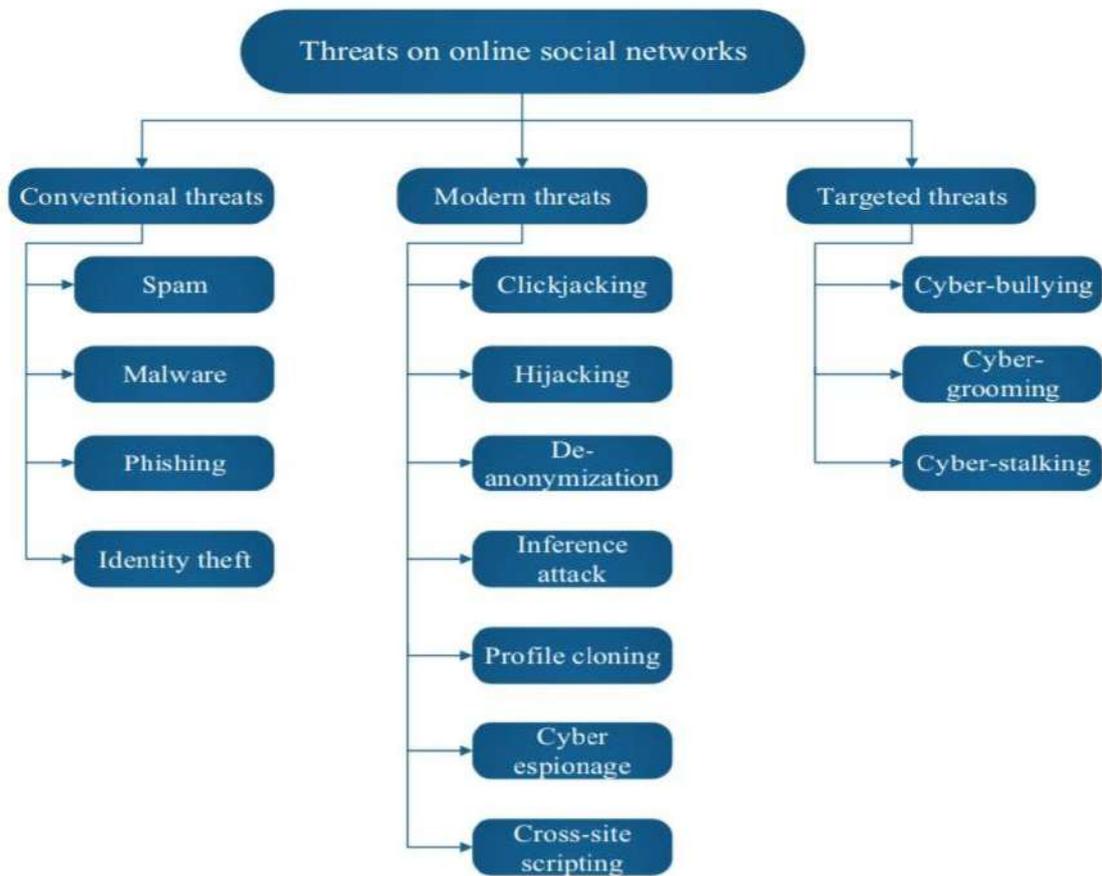
In today's online space there are 4 Billion users exist in online social media platforms. There are 2.8 million monthly clients in Facebook, 333 million users in Twitter, 321 million users in Pinterest. The below figure illustrates the number of users exist in different platform. This report is provided by zephoria ,there is 20% increase in a year in monthly usage of Facebook users, where the user upload 355 million picture daily and 298000 statues daily updated.



**Figure 1 -No of users in social network Platform.**

### 3. SECURITY ISSUES IN OPEN SOCIAL NETWORKS

Social media had been compromised from the security perspectives thereby posing great threat to users with respect to their personal, intellectual, career property. This section seeks to outline the security issues that are prone to social media and its users. These security threats range from privacy setting threats, identity related attack, social attack, anonymity attack and information leakage attack. Though some of these threats can be combated by simply enlightening the users on the potential threats. For instance, a survey reveals that 25% of Facebook users don't bother with privacy settings (Bullas, 2014).



**Figure 2 -Threats on Open Social Networks.**

**3.1 Malware**-Survey shows that 36% of companies have had their systems infected with malware through social media 2009 while it has risen to 70% in 2010 (Vanheuangdy et al, 2010). Some common malware are Koobface and Twitter Worm. Koobface is a worm that spread across social media like Facebook. This type of worm is spread through the messages that users send to their friends; this messages could be in the form of video. When the friend receives such message with an attached link for the video, the user after clicking that link may be required to download or update the Flash Player, on accepting to download the Flash Player the user's computer will be filled with worms that can damage the computer system [22].

**3.2 Spam-** Spam are unwanted or unsolicited messages sent to online email or social media account holders. Most often, such messages are malicious, though some have sought to use it as advertisement strategy. Survey have shown that in the first half of 2013, the growth of social spam media have risen to 35% just on typical account, pointing out that one of seven social posts contain spam [16].

**3.3 Mobile Phone Attack-**By the end of 2014, the number of cellular subscribers will have almost matched the number of people on earth, corresponding to a penetrating 96%, ICT Facts and Figures (ITU).

**3.4 Hijacking-** IN hijacking, the adversary compromises or takes control of a user's account to carry out online frauds [25]. The sites without multifactor authentication and accounts with weak passwords are more vulnerable to hijacking as passwords can be obtained through phishing [28].

**3.5 .SQL Injections-**Web application developers have had their database attacked by attackers through the use of SQL injection. SQL injection is a technical approach used by attackers to gain access to database. Mitigating this attack is mostly left to the developers of the social network so that profile information of users of such social network will be secured.

**3.6 De-Anonymization Attack** -Anonymization in social network allows users to hide information that can make them known. Such information could include their names, pictures, address and other sensitive data. The reason for this anonymity is to ensure user is protected from advertisers, application developers and data mining researchers who will infringe on users privacy.

#### **4. RELATED WORKS**

Bari et al. Found that by implementing AES and DES we require less time of processing PACKET size and these algorithm found to provide great brute force by reducing the vulnerability in victim attack. Moreover DES focuses on plain and cipher text whereas EDS is used in Oracle attack threat to decrypt the cipher text. [11].

E. Jincharadze showcased the importance of RSA. It is an asymmetric algorithm that widely used in the electronic AUTOMATION. RSA uses two different key results and it has low processing speed of encryption and decryption algorithm. However when we compare the processing power of other algorithm like AES and BLOWFISH, RSA found to provide a substantial amount of time to perform cryptography encryption. [4].

A. Verma et al. has investigated all 5 types of algorithm to evaluate security and efficiency level include DES, 3DES, AES, RSA, and Blowfish. In this paper, they found out that, among these techniques, AES and Blowfish are the greatest in security and efficiency. while AES is strong against encryption attacks such as linear interpolation and square attacks and DES is least secure due to its vulnerability to linear and differential cryptanalysis despite the huge CPU cycles and memory it consumes [20].

R. K. Bedi et al. have evaluated 5 algorithm to determine the speed factor while processing speed cryptography. In their study they used DES, 3DES, and RSA. They found that encryption and decryption DES is the fastest while RSA is the slowest. Moreover, this paper showed that 3DES encrypts the same message three times faster but consume more time [8].

R. Bhanot et al. have presented a wider comparison with specific details as they studied ten of the most popular techniques in cryptography. These algorithms were DES, 3DES, AES, RSA, Blowfish, Twofish, Threefish, RC5, ECC, and IDEA. It showed that Blowfish and ECC provide the best security level and fastest encryption speed among the other algorithms. But, Blowfish has the strongest resistance to attacks as no attack is successful against it. [13].

Rahaman proposed a newly implemented way to provide data confidentiality in cryptography using card shuffling logic. This paper showed that ECC is used for higher security with lesser key length. Hence, ECC is very appropriate for devices limited resources [28].

E. Jincharadze showed a detailed study of RSA. It is an asymmetric algorithm that widely used in the electronic industry RSA, however, using two different key results in low processing speed of encryption and decryption algorithm. However, comparing to other algorithms like AES and blowfish, RSA takes a substantial amount of time to perform cryptography encryption. [4].

Rahaman proposed a way to provide data confidentiality in cryptography using card shuffling logic. This paper showed that ECC is used for higher security with lesser key length. Hence, ECC is very appropriate for devices limited resources [28].

V. P. Narkhede et al. have presented a study of the RSA algorithm as it a public-key cryptosystem, recently RSA uses a transaction when they work in a network and it has an efficient security level. However, security is limited to its larger computational requirement [22].

Apoorva et al. [29] concluded that blowfish in the best algorithm to be used in terms of security and time to process because it consumes little time in comparison to the rest. In the work presented by Abdul et al. [30], numerous algorithms were studied including: AES, DES, 3DES, RC2, BLOWFISH and RC6. The conclusion of the comparison ran at the work was that no dramatic difference in hexadecimal base encryption or base 64 ciphering. Also, Blowfish has proven to perform better than the rest when transforming the pocket size. In addition, the work showed that the performance of 3DES is mediocre when compared to DES algorithm. All in all, the big key size could provide considerable improvement in the battery and time passed.

Thakur et al. [31] ran a comparison between DES, AES and Blowfish moderately where the outcome proved that Blowfish is the best and ideal algorithm out of the three when it is in the terms of performance.

R. Singh discussed a comprehensive view of ECC to RSA. In his paper he found that ECC has ideal speeds even when key size is large. Moreover, ECC signature signing is faster than the verification while RSA signature signing slower than verification. However, ECC consumes more time than RSA in a public key generation [27].

Mansoor Ebrahim, Shujaat Khan, Umer Bin Khalid, analysed symmetric algorithms DES, 3DES, Blowfish, IDEA, TEA, CAST, AES, Serpent, RC6, Twofish and MARS depend on various criterion like authentication, flexibility, reliability, robustness, scalability, security, and they highlighted the major weakness of the all these algorithms, accomplishing each algorithm's strength and limitation clear for application. During their study they raise that AES (Rijndael) was the best among all in terms of security, flexibility, memory usage, and encryption performance [19].

**Table 1 : Various Privacy Preserving Technique in Social Networking**

<b>YEAR</b>	<b>AUTHOR</b>	<b>TECHNIQUE IMPLEMENTED</b>
<b>2009</b>	<b>Ford</b>	<b>Used P-sensitive enforcing algorithm, k-anonymity for greedy clustering approach</b>
<b>2010</b>	<b>Fong</b>	<b>Used Access Control method</b>
<b>2010</b>	<b>Tang</b>	<b>MMM &amp;EBB Algorithm for generalizing subgraph and integrating information to predict details from sensitive data</b>
<b>2012</b>	<b>Zhu</b>	<b>Collaborative framework and used innovative key management system to access control social network data</b>
<b>2013</b>	<b>Agarw &amp; SriKanth</b>	<b>Used efficient method to handle sensitive data with data mining method</b>
<b>2014</b>	<b>Liddell</b>	<b>Used cryptographic with PPDM for sharing ,transferring sensitive information</b>
<b>2015</b>	<b>Wu</b>	<b>Used generalized data to support privacy preservation</b>
<b>2018</b>	<b>Rajesh</b>	<b>Used linear clustering for grouping operation of data object .This method found to provide better results.</b>
<b>2020</b>	<b>William</b>	<b>Used symmetric key block cipher</b>
<b>2020</b>	<b>Poonam Jindal</b>	<b>Used Triple DES algorithm, DES Cryptographic 64 bit block chipper</b>

## **5. GOALS OF CRYPTOGRAPHY**

Cryptography is used to secure the data into a certain symbol by means of code .They have 2 process mainly encoding and decoding which depends on an identical key

- **Authentication-** it is used to identify authorized person using key

- **Data Integrity**- it is an operation that allow access to database that belong to certain group of people
- **Confidentiality**-sends a message of cipher key to authorized person
- **Access Control**- allow people with correct authentication with key can access the database.

## 5.1 Cryptography Algorithms

### 5.1.1 ECC

Epileptic Curve Cryptography is a asymmetric algorithm , that uses varied key to encode and decide the data. It was invented by V. Miller (IBM) and N. Koblitz (University of Washington) in 1985. They provide better security with 164-bit key. They can handle 1024-bit key and provide good battery backup ,since it consume less key for encoding and decoding and consume less energy.

### 5.1.2 DSA

A Digital Signature Algorithm (DSA) is a public key encoding algorithm established to secure the privacy of numeral text. The DSA was founded by NIST. A text is signed by a secret key to invent a signature and the signature is checked opposite to the text by a public key. Likewise, any group can check the authenticity signatures; however, only the party with the secret key could sign the texts. An available numeral signature offers a recipient a cause to think that the message was invented by a known sender who has the secret key, and that it was not modulated in transferring [4].

### 5.1.3 Diffe-Hellman

The Diffie-Hellman algorithm offers two users to find a shared secret key and get in touch over an insecure communications channel. They work with group of key pair and public key concept. It allows two users to share a secret key to provide communication through the channel.

#### 5.1.4 RSA

RSA was invented by Ron Rivest, Adi Shamir and Leonard Adleman back in 1978. It is one of prominent public key encoding systems for key exchange, digital signatures or encryption of blocks of database. They allow different key size for encoding block with variable key size. It is an asymmetric encoding system. They allow both public and private key. This algorithm works in 3 step process: key generation, encoding and decoding.

#### 5.1.5 DES

DES was first introduced in IBM by Horst Fiestel in the year 1972. The goal of the DES algorithm is to offer a strategy to secure crucial financial database [4]. The encipher instructions are:

- DES receives data of 64-bit long ordinary message and 56 bit key and comes up with 64-bit block.
- The ordinary text block needs to modulate the bits.
- The 8 similar bits are eliminated from the key through exposing the key to its key permutation.

#### 5.1.6 BLOWFISH

Blowfish [5] is a symmetric block cipher, designed by Bruce Schneier in 1993. The algorithm consists of two parts: a key expansion part and a data encryption part. Blowfish has a 64-bit block size and a variable key length from 32 up to 448 bits. Key expansion converts a key of at most 448 bits into several sub-key arrays totalling 4168 bytes. Blowfish follows 16 rounds of Feistel Network. Bruce Schneier later created Twofish, which performs a similar function on 128-bit blocks. The Blowfish is designed to aim four criteria known as Fast, Compact, Simple and Variably Secure. Blowfish has some classes of weak keys. For these weak keys, separate rounds end up using the same round-keys. Keys belonging to these classes can be detected only in reduced-rounds versions of the algorithm and not on the full blowfish.

#### **Table 2: Comparison of Block Cipher & Cryptography**

NAME	BLOCK SIZE	KEY SIZE(Bits)	ATTACK	ROUND
DES	64	56	Differential channel	16
BLOWFISH	64	36-442	Weak key	24
PRESENT	64	82 or 128	Side channel attack	31
KLEIN	64	64or 96	Biclique	12 or 20
TDES	64	168 ,56	Weak key	48
ECC	Variables	More usage of variable	Flexible in providing key	1
RSA	128	1024 to 4096	Low speed	1

The above table compares block cipher and CRYPTOGRAPHY based on block size , key size and number of round and attack involved in different types of algorithm.

Key size, block size, and number of rounds are the most important factors that affect the performance, speed, and security of cryptography algorithms. Block size is a fundamental unit of data where a larger block size provides higher security [32]. Figure 6 represents block size quantitative measures of some cryptography algorithm. Notice here DES use to encrypt less block size than RSA and Blowfish. However, ECC is used variable block size start with 64-bits. While AES uses the double size of data block compared to all other symmetric algorithms which are 128-bits.

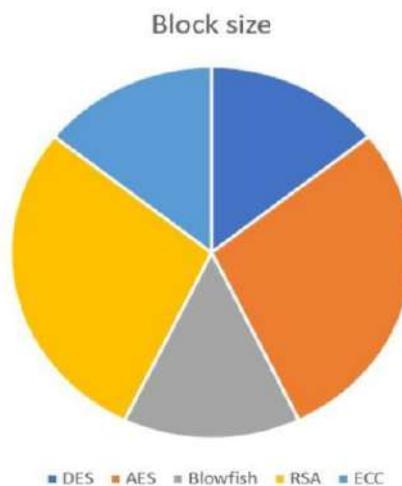


Figure 3 -Classification of key size

## 6. Conclusion

This paper presents a survey of the most important cryptography algorithms up to date. These cryptographic algorithms are studied and analyzed well in order to help in enhancing the performance of the current cryptographic methods. The result shows the techniques that are useful for real-time encryption. All encryption methods have proven to have their advantages and setbacks and have proven to be appropriate for different applications. The comparison between Symmetric and Asymmetric algorithms shows that Symmetric algorithms are faster than their Asymmetric counterparts. Through the previous studies and the result of comparison, we find that the most reliable algorithm is ECC in term of speed encryption, decoding, complexity, the length of the key, structure and flexibility.

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## INVESTMENT AWARENESS OF YOUNG INDIVIDUALS WITH REFERENCE TO BANGALORE CITY

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### **ABSTRACT**

Investment is one of the most significant aspect of the economy, one of the most changeable components of GNP, and a determinant of the country's economic progress. Investment is an asset that will help the money grow to meet certain expenses as well as for steady regular income. In a country like India, with largest young population, investment is considered as an important factor for increasing the competition and also for increasing the wealth of the economy. This study focuses on finding the investment awareness and behavior of young individuals in the Bangalore city within the age group of 18 to 25 years and also to find whether the educational qualification of an investor determines the amount of investment. The data were collected via questionnaire survey and analyzed with the help of anova tool in SPSS. The result of the study showed that young individuals are mostly aware of different investment avenues and different market conditions irrespective of their educational background.

**KEYWORDS:** Investment awareness, Investment behavior, Investment avenues, young Individuals.

### **INTRODUCTION**

Investment is a critical component of economic progress. Investments enable the accumulation of social capital. In today's fast changing environment, investment is considered as an important factor of an economy for increasing the competition and also for increasing the productivity. An investment is an asset that will help the money grow. The main intension of investment is the creation of wealth. People will save the money and then invest their savings to suitable investment avenues to build their wealth overtime. The wealth created can be used for various purposes such as for saving up for retirement, purchasing assets, meeting shortages, repayment of loan, meeting hospital expenses, paying tuition fees etc. Investing not only helps to grow the money but also it helps to earn a steady stream of income to the investors as well

as to minimise the tax burden. It also helps to achieve short term as well as long term financial goals without much stress and trouble. But the fact is that most of the people do investing only after their retirement. In country like India, it has found that most of the people are not aware about investment, various avenues, its benefits, returns etc. It is very important to educate people about the significance of investment and the various benefits they will get from each avenue. People should be educated about the avenues and the purposes, risk and the related things. The market conditions and the changing economy increased the income and expenditure because their purchasing capacity of people has also increased. But the people have become more conscious and careful about investing their hard earned money to different available investment options to get higher returns which also include risks. The people have become keen on investing because of the risk involved in it.

In a country like India, with the largest young population in the world with more than 808 million people or 66% of the overall population, the nation expects a brighter future. Youth are considered as the backbone of a nation. They are the people who will make changes that affect the economy positively. Youth are the promise of tomorrow and their activities positively affect the growth of the economy by wealth creation. Since there is a wide increase in the investment avenues that are available for various purposes, the question arise is that whether the young investors are aware about the various investment avenues. This research study aims to look at the awareness on investment among young people and to find weather there is any relationship between the educational qualification and percentage of income chosen for investing among young individuals in Bangalore city.

## REVIEW OF LITERATURE

**Dr. Narendra singh chawda, Rajeev Kumar & Dr. Rajan k.Shrikhande (2021)**, On their study of saving and investment patterns of young investors in Pune, they discovered how the youth save money and invest it in various ways. The researchers discovered that the youth are very aware of the available opportunities for investing and its benefits, but they are confused or worried about it due to a lack of practical understandings.

**Rajkumar subbaiyyan (2021)** on the topic investment pattern of youth in India reveals that the Indian people are willing to invest in low risk and medium return avenues. Indian people are concerned about their hard earned money to invest in risky schemes. His study also reveals

that people are becoming financially literate and are getting more and more aware about different investment avenues.

**Shinki k Pande and Abhishek vishwakarma (2020)** on their study titled the investment preferences of young individuals with reference to the Raipur city reveals that most of the young investors prefer avenues like equity, mutual fund, SIP for growing their wealth than in investing traditional avenues like bank deposits, post office schemes etc. The study discovered that young people prefer to invest in short-term opportunities that provide higher returns than long-term opportunities, and that they have a high risk tolerance.

**Aswini Ajay and Shabu (2020)** studies on paper their paper, the investment behaviour of salaried youth in Kerala, their investment preferences and also about whether their investment decisions bring them profits in future. The primary goal of this research is to uncover the investment habits of young people and the factors that influence the investment paths they take. According to the findings of this study, the youth have begun to recognise the importance of investing and are conducting research before investing in a specific avenue.

**pankhuri Agarwal (2020)** on his study on the topic investment awareness and preferences of working and non-working women claims that women are under-informed about the various investment avenues available for meeting financial goals, as well as tax-saving schemes They discovered that women prefer schemes with less risk and a higher return, such as bank deposits, post office schemes, and life insurance.

**Tanuja Gadde and Dr. Ambuj Gupta (2020)** on their research paper which studies the risk taking capacity among young investors finds the influence of various demographic factors in the decisions relating to investment. Also it has found that the annual income of an individual has a significant role in choosing the avenues and also risk ability.

**Dr. Neelam Raut and Revati Shinde (2019)** in their paper titled “A study of awareness and investment behaviour of youth in Pune region” claims that the youth in the Pune region are very aware of investment and the various investment avenues available to them, and are also willing to take risks and threats when investing This study also reveals that there is no significant difference between male and female investment awareness, activity, and risk taking ability.

**Dr. Mukti katariya and Dr. Seema joshi (2018)** through their study on saving pattern, investment awareness of investors and their preferences with reference to Jalgaon district

reveals that the people in that district (rural people) are not aware of investment and the various investment avenues. The researchers discover that the people in that district are not financially literate because they are interested in secured investments such as bank deposits, gold, real estate, and fixed deposits, and they also propose various methods to improve the level of financial literacy among the people in that district.

**Zainal Azhar, Juliza Mohamed, Amirul Syafiq, and Azilah husin (2017)**, in their study “Investment awareness of young People and the pattern of saving and investment” with particular reference to Malaysia points out that the financial literacy has a significant role in the investment awareness and the investment behaviour of a person. The study reveal that the financial literacy, environment that people live, and also the personal interest are significantly related to the investment awareness and saving patterns of an individual. This study discovered that young investors lack knowledge about various questions such as where to invest, how to invest, and different available avenues, as well as the researcher's claims that personal interest determines the investment pattern and risk taking ability of the people, as most of them prefer to invest in low risk avenues and expect to get higher returns for a longer period of time.

**Sudarshana saikia (2015)** on their article of “Investment of youth in India with particular reference to Mumbai. This study reveals that there is a significant difference between the investing patterns of male and female investors as female investors are more conservative and have a low risk appetite.

## **RESEARCH METHODOLOGY**

### **STATEMENT OF THE PROBLEM**

Investment is an opportunity to create wealth and many more benefits. The main intension of investment is the creation of wealth. There are numerous investment options available to investors in order to grow their wealth. Hence, this research aims to explore the awareness and attitudes of young people towards investment and certain investment avenues and also their risk taking capacity.

### **SCOPE OF THE STUDY**

The study is aimed to understand the investment awareness and investment behaviour among young people in Bangalore city within the age of 18 to 24.

1. The study is focused among the young individuals in urban Bangalore.

2. The study is conducted focusing on the young generation within the age group of 18 to 25 years.
3. The study is conducted in limited sample size.

## METHODS OF DATA COLLECTION

Primary data: Primary data was obtained through a well-structured questionnaire in order to achieve the study's objectives. The questionnaire was distributed among 50 young people in Bangalore city.

## Research hypothesis

H<sub>0</sub> – There is no relationship between awareness on the investment avenues and age.

H<sub>1</sub>- There is relationship between awareness on the investment avenues and age.

H<sub>0</sub> – There is no significant relationship between education qualification and percentage of your income you choose for investing.

H<sub>1</sub>– There is no significant relationship between education qualification and percentage of your income you choose for investing

## OBJECTIVES OF THE STUDY

1. To identify the investment awareness among young people.
2. To find weather there is any relationship between educational qualification and percentage of income choose for investing.

## LIMITATIONS OF THE STUDY

1. The study is limited to urban Bangalore.
2. It is conducted based on accessibility and convenience only.
3. The sample size of the study is limited to 50 young people.
4. The paper was written within a span of 15 days.

## INTERPRETATION AND ANALYSIS

### ANOVA

Investment awareness and age.

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	.802	1	.802	.209	.650
Within Groups	184.578	48	3.845		
Total	185.380	49			

The first hypothesis of the study refers to the relationship between investment awareness and age of respondents. By passing Anova test, the p value found is 0.650 which is greater than the significance level 0.05 this leads to acceptance of null hypothesis and rejection of alternative hypothesis. i.e., there is no significant relationship between awareness on investment avenues and age of the respondents.

### ANOVA

Education qualification and percentage of income choose for investing

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	.926	3	.309	.744	.531
Within Groups	19.074	46	.415		
Total	20.000	49			

The second hypothesis of the study refer to the relationship between education qualification and percentage of income choose for investing by the respondents. By passing Anova test, the p value found is 0.531 which is greater than the significance level 0.05 this leads to acceptance of null hypothesis and rejection of alternative hypothesis. i.e., there is no significant relationship between education qualification and percentage of income choose for investing by the respondents.

### Findings and suggestions

The empirical evidence derived from analysing the data is presented the following observations and findings;

From the research study it has found that there is no significant relationship between investment awareness and age of the respondents as well as between education qualification and percentage of income willing to invest in different avenues. For most of the respondents, family and friends are the primary source of information regarding investments and the decisions they make. Based on the objective of the research, the study found that the young generation is mostly influenced by the family and friends for making decisions about investment followed by internet and the least is books and magazines.

According to the literature reviews and the observation, financial literacy plays an important role. People should be educated about investments and different avenues available to grow their wealth. Some important suggestions include, People should start investing at the very early age to get more returns, Young investors are beginners in the market so they should be guided by professional financial planners, Investors should be ready to take up more risk in order to create maximum wealth, Young investors should properly evaluate the market conditions and take expert advises rather than taking suggestions from their family and friends who are not an expert and the youngsters should have a proper financial planning and goal.

## **Conclusion**

The primary aim of this research was to analyse the investment awareness among young individuals in Bangalore city. From this study it has found that young individuals are aware about investment and also from this study it has found that the educational qualification of individuals plays a major role in the investment behaviour, that is the percentage of income they choose for investing but the study was limited to just 50 young people from Bangalore city within a very short frame, so this paper doesn't draw an accurate conclusion.

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# **A STUDY ON RURAL CONSUMER TOWARDS FAST MOVING CONSUMER GOODS WITH SPECIAL REFERENCE TO CHENGALPATTU DISTRICT**

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## **ABSTRACT:**

The aim of this paper is to comprehend the rural buying behaviour and the factors influencing rural purchase towards Fast moving consumer goods (FMCGs). FMCG includes biscuits, toothpaste, soap, dairy products, shampoos and soft drinks, the consumer behaviour of the rural population logically prefers the product making the purchase decision and expressing the satisfaction level. In olden days rural people bought goods only for low level of literacy, lack of market communication and low brand awareness, but now a day they are consumed various branded items in their day-to-day life because certain factors are influencing buyers to purchase the FM products. Rural consumer buying behaviour only depends upon their needs and wants. The selection and purchase of the products depend on the differential behaviour over time, availability of information from various sources, their preferences to a particular product their utility. Promotional schemes are more far away to consumers in many villages. A study on rural consumer behaviour conducted in Chengalpattu District helps the rural marketers to provide valuable information and guidelines for making more valuable customers in rural areas. Primary data was collected from 100 respondents in Chengalpattu District. The finding and concluding observation is that Quality of products, advertisement and cost are the most influencing factors in buying fast moving consumer goods with special reference to Chengalpattu District by rural consumers.

**KEYWORDS:** Brand awareness, Consumer Behaviour, Customer Satisfaction, Fast Moving Consumer Goods, Rural Consumer, Rural Market

## INTRODUCTION

Consumer behaviour is the study of individuals and all the activities associated with purchase decision, use and disposal of goods and services. It also consists of how the consumers to buy the products are influenced by attitudes, emotions and preferences. Rural consumers are mostly depends on agriculture and were not very literate about products and services available in the market. This scenario is slowly changing due to an increase in literacy and disposable income. The rural consumer has less disposal income. Therefore, they prefer to buy only less expensive products. They differ from urban customers with respect to their lifestyles and thinking. A rural market is price-sensitive but also appreciates quality products, thus technique designed by rural customer may differ from their urban counterpart. Price is the strongest factor for making their buying decision. The main goal of rural marketing is aim to improve standard of living of rural consumers by providing them greater awareness and accessibility to new products and services. Fast moving consumer goods (FMCG) which are regularly/frequently consumed by rural and urban peoples. Moreover, 70% of Indian population lives in villages and constitutions a big market for industry. FMCG market in India is expected to increase at a CAGR of 14.9% to reach \$220 billion by 2025, from \$110 billion in 2020. the fast moving consumer goods market expanded 16% in value during 2021. With household and personal care accounting for 50% of FMCG sales in India, the industry is an important contributor to India's GDP. So this study mainly focuses on rural consumer behaviour towards FMCG in Chengalpattu district.

## REVIEW OF LITERATURE

**Suraj Verma, Kuldeep Chand Rojhe , Elena Horska, Somesh Sharma and Peter Sedik, (2023) "Consumer Decision Making Rules For FMCG Products - Study Of Rural In North India"**- reveals that there are two rules of consumer decision making i.e., educational backgrounds and the number of family members under the age of 18 years. These two factors are influence rural consumer and also research helps the rural marketers in designing strategies that makes consideration the needs and demands of rural residents. **Chandra Sekar, Radhesyam, Poojitha, Bargrecha & Akhilkumar (2022) "Rural Buying Behaviour towards Select FMCG Products"**– reveals that changing the lifestyle of rural peoples has improved recently. So that rural buyers are mostly consumed by branded items. High levels of income, education change the rural consumers into a super rural consumer in the era of technology. Rural marketers need to develop a market communication and focus on women buyers because they are only found to be more loyal to the shop. Most of the village people visits their regular shop and purchase their FMCG products. **R. Raghuram**

**& Dr G. Balasubramania Raja (2022) “A Study on Rural Consumer Buying Behaviour of FMCG of Products in Thiruvallur”**- describes that three variables like price, product and psychological aspects are associated with buying behaviour. If price is change, consumption in the rural market may decrease because price having the greatest effect on buying behaviour. **Dr.A.Rama Satyavathi & S. Ramesh (2021) “A Study On Customers’ Satisfaction Of FMCG Products With Special Reference To Khammam District** identified that consumer behaviour is largely influenced by location, product price and promotion, people influence and market – wide factors and to examine socio economic background of respondents, analysing factors motivate for purchasing FMCG products. **Dr.V.T.Dhanaraj (2020) “A Study On Consumer Brand Awareness Of Fast-Moving Consumer Goods (FMCG) -** This research reveals that rural market offers a growth opportunity like untapped market, large population and huge scope for penetration. While urban market is almost reaching towards the saturation point this is an urgent need to focus on rural development. To modify the marketing mix elements for rural market, because the attractive ness and suitability of those elements is highly beneficial to FMCG players. It also identifies factors influencing their awareness and preferences for FMCG brands are that, to examine the differences among users with various level of explore and preferences. **Dr.K.Vijayakumar & R.Nijanthan (2019) “A Study on Consumers Buying Behaviour towards FMCG Products With Reference To Karur District –** found that rural consumer purchase decision depends upon branding and quality of the products. This was carried out by identifying the main variables have a least quality and also 4P’s (pricing, packaging, promotion and purity). Brand loyalty only way to fight with competitors in the market price. The manufacturer should focus to sell their products in standard price with good quality, availability of brands in all stores and to retain their valuables customers only by selling low cost. This concept also indicates that consumers develop their behavioural and attitudes to FMCG brands even though some products are get fails in low involvement but it was successfully in creating brand values in the minds of the rural consumers.

## STATEMENT OF THE PROBLEM

Fast moving consumer goods are sold quickly and also reasonable price to buy the products. FM products like soaps, biscuits, soft drinks, dairy products, cosmetics, toothpaste and perfumes. To understanding their behaviour helps to identify the preferences influence of brand in their purchase decision, on the purchase of particular FMCG products. In olden days rural consumer has low level of brand awareness and lack of market communication about FM product but now peoples are more knowledge about branded items because certain factors are influenced them to buy their product. So

manufacturer companies need to know or identify that in which items rural areas people preferred to buy. The purpose of study is makes an attempt to analyse the rural consumer for which branded items or products to satisfy their needs. In this background it is identify that there is need for research work in the field of rural consumer's behaviour of FMCG in the Chengalpattu district.

### OBJECTIVE OF THE STUDY

To identify the factors influencing rural consumer buying decision for fast moving consumer goods.

### RESEARCH METHODOLOGY

<b>Table 1</b>	
Sample area	Chengalpattu
Sample design	Convenience Sampling
Sample size	100
Period of study	January 2023
Statistical tools	Simple percentage and Ranking method
Research instruments	A self-prepared structured questionnaire circulated through Google forms.
Collection of data	Primary data – Questionnaire Secondary Data – Research Journals, articles, websites.
Source: Compiled by the Authors	

### DATA ANALYSIS AND INTERPRETATION

#### Demographic profile

The profile of the respondents was studied based on age, gender, educational qualification, occupation, and monthly income.

**Table 2 Demographic factors of the respondents**

<b>Demographic Factors</b>	<b>Classification</b>	<b>No.of respondents (N=100)</b>	<b>Percentage</b>
<b>Gender</b>	Male	28	28.00
	Female	72	72.00
<b>Age</b>	Below 20 years	9	9.00
	21-30	81	81.00
	31-40	8	8.00
	41-50	2	2.00
	Above 50		
<b>Education Qualification</b>	School-level	7	7.00
	Diploma	5	5.00
	Undergraduate	36	36.00
	Postgraduate	50	50.00
	Others	2	2.00
<b>Occupation</b>	Self-employed	11	11.00
	Private	24	24.00
	Government	2	2.00
	Homemaker	9	9.00
	Student	54	54.00
	Others	0	0
<b>Monthly income</b>	Below 10000	57	57.00
	11000-20000	19	19.00
	21000-30000	14	14.00
	31000-40000	6	6.00
	Above 40000	4	4.00

Source: Primary Data Analysis

**Interpretation**

- 6) From the above table, it is observed that the majority of the respondents are female (72%) and the rest (28%) are male.

- 7) Out of 100 respondents taken for the study, the majority of the respondents are in the age group 21-30 while 9% were below 20 years. While in the age group 31-40 there are only 8%. It was found that 2% of respondents are above 40 years.
- 8) It is observed that 50 % of the respondents are postgraduates whereas 36% are undergraduates. About 7 % of the respondents are only having school-level education while 5% are diploma holders, 2 % are from other backgrounds.
- 9) It is observed that 41% are private employees, 33% are students, and 8 % each for government and self-employed. Only 6 % of the respondents are homemakers and 4 % are from other area of occupation.
- 10) The study revealed that there are 57% of respondents are having monthly income below 10000. Approximately 19% of the respondents are having monthly income between 10000- 20000 and 14% are having 21000- 30000, only 6% of the respondents are having 31000-40000, and 4% are having above 40000.

### FREQUENCY STATISTICS AND RANKING

**Objective:** To identify the factors influencing rural consumer buying decision for fast moving consumer goods.

<b>Table 3 Factors influencing the rural consumer to buy FMCG products</b>							
<b>Factors influencing</b>	<b>Rank 1</b>	<b>Rank 2</b>	<b>Rank 3</b>	<b>Rank 4</b>	<b>Rank 5</b>	<b>Total</b>	<b>Final Rank</b>
<b>Advertisement</b>	<b>22</b>	<b>62</b>	<b>8</b>	<b>8</b>	<b>0</b>	<b>398</b>	<b>2.5</b>
Availability of products	24	54	17	5	0	397	4
Brand loyalty	22	50	20	6	2	384	11
<b>Cost</b>	<b>27</b>	<b>53</b>	<b>12</b>	<b>7</b>	<b>1</b>	<b>398</b>	<b>2.5</b>
Income and occupation	23	52	20	3	2	391	5
Literacy level of people	21	52	19	6	2	365	12
Long lasting	26	50	14	8	2	390	9.5

Product packaging	22	56	16	5	1	393	6.5
Product shape and colour	21	54	20	4	1	390	9.5
Product and service reviews	29	45	18	6	2	393	6.5
<b>Quality of products</b>	<b>38</b>	<b>46</b>	<b>13</b>	<b>1</b>	<b>2</b>	<b>417</b>	<b>1</b>
Social media	23	56	12	7	2	391	8
Shopkeeper's recommendation	25	52	18	3	2	395	5
Source: Primary data analysis							

### Interpretation:

From the study, it is found that the major factors that influence the buying of fast moving consumer goods is 'Quality of products' with rank 1 followed by the factor of 'Advertisement' and 'cost' in ranks 2.5. The reasons that are least considered factors to influence for buying fast moving consumer goods is 'Brand loyalty' and 'Literacy level of people' in ranks 11 and 12 respectively.

### FINDINGS FROM THE STUDY

Demographic profile reveals that majority of the respondents are female, their age group are between 21-30 years, the educational qualification of the respondents are post graduates, their major incomes are below 10000 and most of the respondents are student.

Influencing factor reveals that majority of the respondents in rural areas to buy Fast moving consumer goods based on quality of products. Cost and advertisement is also one of the factors influencing the consumer to buy FM Products. Brand loyalty and literacy level of people are considered to the least influencing factors.

### CONCLUDING OBSERVATION AND SUGGESTIONSS

This study deals with the analysis of the primary data which has been collected from 100 respondents who are the regular consumers of FMCG products. Fast moving consumer goods like soaps, biscuits, soft drinks, dairy products, ice cream, cosmetics, toothpaste and perfumes. The changing of lifestyle in rural areas improved consumption of quality products. So the organisations

must consolidate this fact and reengineer business strategies towards meeting the changing needs and wants of rural consumers in the era of technology. Price is the strongest factor that affects their buying decision. But in these study rural peoples is more conscious about quality of products. Cost and advertisement is also one of the factors influencing the consumer to buy FM Products. Brand loyalty and literacy level of people are considered to the least influencing factors. It clears from the study that FMCG acquire a major share in the consumer goods market the manufacturer as to provide quality goods at a reasonable price. Hence the researcher hopes that all these information in this study will assist companies in shaping their marketing strategies and better serving their rural customers.

### **SCOPE FOR FUTURE RESEARCH**

This study is carried out in Chengalpattu district with special reference to FMCG products for buying behaviour in rural areas and explored the common factors that influenced the buying of fast moving consumer goods by rural consumers. There is the scope for further study based on comparing any two FMCG products and there could be also a study based on changes in consumer attitude time to time in buying FMCG.

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## A STUDY ON CONSUMER PREFERENCE TOWARDS AMAZON ONLINE SHOPPING APPLICATION IN CHENNAI CITY

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### ABSTRACT

The act of purchasing products or services over the online shopping websites is called as online shopping. It offers a wide variety of products and services to the customers at their doorsteps. In this digitalized era, Online shopping has become very popular especially among working professionals who are looking for an easy way to shop their necessary products. The consumers can easily purchase any products from the comfort of their homes. Today online shopping has become more common and that is why it is essential to conduct a study on purchasing preference of the customers towards Online Shopping (Amazon). The main aim of this research is to analyse the consumer preference and the factors influencing the consumers to prefer Amazon for online shopping. The questionnaire will be circulated among the respondents in Chennai in order to derive the findings of the study. The study has revealed that majority of the respondents are preferring Amazon based on the Availability of wide variety of products, Orders that are delivered worldwide and Based on the safety provided for online transactions these are the major factors which influence the consumer to prefer Amazon.

**KEY WORDS:** Consumers, Consumer Preference, Influencing factors, Online Shopping

### INTRODUCTION

Online retailing, also known as online shopping, is a type of electronic commerce in which consumers use a web browser to directly purchase goods or services from online. Alternative word for online shopping includes: e-shop, e-store, web-shop, web-store, online store, and virtual store are all forms of online retail. The internet's lower cost factors, as a direct channel of customers and a company with comparatively lower maintenance costs and investment, were regarded as critical factors in the success of online-based business. Because of the convenience, many people prefer to do their shopping online. It allows you to browse through an infinite number of options and offers merchandise that is not available in stores.

Amazon is one such site that customers frequently use to purchase products. It conducts all its business with vendors and customers via the Internet. Customers prefer to purchase from Amazon because it is one of the most trusted retailers in terms of data security and customer service. They are also very good in terms of their hassle-free policy. Another advantage is that the product is accurately described, making it easier for the customers to purchase products.

## REVIEW OF LITERATURE

**Mohamed Imran Sheriff (2022) “A Study on Consumer Buying Behaviour with Preference in Amazon”** The study reveals that Clothing was the most popular product that customers planned to purchase from Amazon. Electronics took second place. Industrial equipment was the least preferred product by the consumers.

**Sugashini S, Dr. Ashac P (2022) “Buying Behavior of Customers towards Online Shopping in Nagercoil City”** reveals secure online payments, improved access to Electronic Stores, return policies, and exciting discounts could improve the perception of online shopping. The researcher concluded that Amazon is the most popular online shopping site, and it also shows that most respondents preferred to buy online due to convenience.

**Sruthi Ravichandran, Mr.D. Shanmugavadivel (2021) “A Study On Customer’s Preference And Satisfaction Towards Online Shopping In Amazon With Special Reference To Coimbatore City”** helps to know more about the customer attitude, preference and factors which influence the consumer to buy goods in Amazon. The study reveals that consumer prefer more amazon for good quality of goods, detailed description of the products and fast delivery of the products.

**Dr.Thandauthapani A, Mr. Karthikeyan T, Dr.Venkatesh S (2021) “A Study on Customer Preference towards Online Shopping Platforms with Special Reference to Tamilnadu”** reveals that online shopping gives they lot of benefits compared to visiting a retail outlets. Factors like refund options, offers and discounts influences the consumer to prefer for online shopping. Also, the delivery time taken, safe and secure payment options assure them with safety that they can use online platform. Even though there is a threat of frauds, customers believe that online mode of shopping is highly safe and secured.

**Elika Kordrostami, Vahid Rahmani (2020) “Investigating conflicting online review information: evidence from Amazon”**, Investigated the influence of online reviews on people's purchase intentions and sales rank on Amazon revealed that both volume and valence range had an impact, with volume having a significant impact on purchase intentions only when valence was in the medium range and no impact at the low and high ratings.

## RESEARCH GAP

The study addresses how consumers are preferred to buy their products through online shopping website (amazon) rather than choosing any other online shopping websites like Flipkart, Myntra, Ajo, Nykka, Purple, Snapdeal, Meesho, Jio Mart and so on. There are many previous studies conducted based on the consumer perception, consumer buying behavior pattern, consumer satisfaction towards Amazon. There are limited research studies done on consumer preference. This study helps us to fill the gap on how the consumers are preferred to buy products through amazon than purchasing in another shopping websites. And, this study mainly helps us to find out the factors influence the consumers to prefer Amazon. This also helps us to find the significant relationship between demographic factors and the factors which influencing the customers to buy products in Amazon.

## OBJECTIVE

1. To identify the factors influencing the consumers to prefer Amazon online shopping application.

## RESEARCH METHODOLOGY

<b>Table 1- Research Methodology</b>	
<b>Sample Area</b>	Chennai City
<b>Sample Design</b>	Convenience Sampling
<b>Sample Size</b>	100
<b>Period of Study</b>	January 2023
<b>Statistical Tools</b>	Simple Percentage, Charts, Rank Correlation
<b>Research Instrument</b>	A self-prepared structured questionnaire circulated through Google forms.
<b>Collection of Data</b>	Primary data – Questionnaire

	Secondary Data – Research Journals, articles, websites.
Source: Compiled by the Authors	

## DATA ANALYSIS AND INTERPRETATION

### Demographic profile

The profile of the respondents was studied based on age, gender, educational qualification, occupation, and monthly income.

<b>Demographic Factors</b>	<b>Classification</b>	<b>No. of respondents (N=100)</b>	<b>Percent</b>
<b>Gender</b>	Male	47	43.00
	Female	53	47.00
<b>Age</b>	Below 20 years	20	23.00
	21-30	55	59.00
	31-40	20	13.00
	Above 40	5	5.00
<b>Education Qualification</b>	School-level	5	8.00
	Diploma	6	8.00
	Undergraduate	45	46.00
	Postgraduate	42	36.00
	Others	2	2.00
<b>Occupation</b>	Self-employed	12	11.00
	Private	33	27.00
	Government	12	12.00
	Homemaker	0	0.00
	Student	40	47.00
	Others	3	3.00
<b>Monthly income</b>	Below 10000	35	43.00
	10001-20000	15	16.00
	21000-30000	30	23.00

	31000-40000	14	11.00
	Above 40000	6	7.00

Source: Primary Data Analysis

**Interpretation:**

- a) From the above table, it was observed that most of the respondents were female (53%) and the rest (47%) are male.
- b) Out of 100 respondents taken for the study, most of the respondents were in the age group 21-30 (55%) while in the age group above 40 there were only 5%. It was found that 20% of respondents were below 20 years and between 31-40 years.
- c) It was observed that 45% of the respondents are undergraduates whereas 42% are postgraduates. About 5% of the respondents are only having school-level education, while 6% of them are diploma holders and 2% are from other backgrounds.
- d) It was observed that 40% are student, 33% are private employee, and 12% each for government employees and self-employed. Only 3% of the respondents are from other areas of occupation.
- e) The study revealed that there are 35% of respondents are having monthly income below 10000. Approximately 30% of the respondents are having monthly income between 21000-30000 and 15% are between 10001-20000, only 14% of the respondents are having 31000-40000, and 6% of the respondent are above 40000.

**FREQUENCY STATISTICS AND RANKING**

**Objective:** To identify the factors influencing the consumer to prefer Amazon online shopping application.

<b>Table 3 - Factors Influencing the customer the customer to prefer Amazon</b>								
<b>Factors Influencing consumer to prefer Amazon</b>	<b>Rank 1</b>	<b>Rank 2</b>	<b>Rank 3</b>	<b>Rank 4</b>	<b>Rank 5</b>	<b>Total</b>	<b>Final Rank</b>	
<b>Availability of wide variety of products</b>	34	49	13	3	1	412	1	
Buy now pay later facilities	17	30	23	20	10	324	13	

Delivering the products to the consumer on the prescribed time limits	22	41	28	9	0	376	8
Great customer service	21	46	21	11	1	375	9
Non-defective products	16	28	37	15	4	337	12
Offers provided	25	44	24	6	1	386	5.5
<b>Orders delivered worldwide</b>	<b>32</b>	<b>42</b>	<b>22</b>	<b>4</b>	<b>0</b>	<b>402</b>	<b>2</b>
Price of the products	26	46	21	6	1	390	4
Quality of products	16	45	26	12	1	363	10
Refund facilities	20	47	26	5	2	378	7
Return policies	24	50	16	8	2	386	5.5
Review system	13	39	33	14	1	349	11
<b>Safety provided for online transaction</b>	<b>27</b>	<b>49</b>	<b>19</b>	<b>5</b>	<b>0</b>	<b>398</b>	<b>3</b>
<b>Source:</b> Primary Data Analysis							

### Interpretation:

From the study, it can be seen that “Availability of wide variety of product” is considered as the major factor which influences the consumer to prefer Amazon online shopping application with rank 1 followed by the Orders delivered worldwide and Safety provided for online transaction in ranks 2 and 3 respectively. The reasons that are least considered factors to prefer Amazon online shopping application is non-defective product and buy now pay later facility in ranks 12 and 13 respectively.

### FINDINGS FROM THE STUDY

Demographic Profile reveals that majority of the respondents are female, their age group are between 21-30 year, the educational qualification of the major respondents are undergraduates, their major incomes are below 1000 and most of the respondents are students.

Influencing factors reveals that majority of the respondents prefer Amazon online shopping application based of the Availability of wide variety of the products, Orders that are delivered worldwide and Safety provided for online transaction and non-defective products and buy now pay later facilities are considered to the least influencing factors.

## CONCLUDING OBSERVATION AND SUGGESTIONS

The study has explored the factors which influence the consumers to prefer Amazon rather than choosing any other online shopping websites like Flipkart, Myntra, Ajoio, Nykka, Purple, Snapdeal, Meesho, Jio Mart and so on. The study has revealed that consumers are preferring Amazon based on the Availability of wide variety of products, Orders that are delivered worldwide and Based on the safety provided for online transactions these are the major factor which influence the consumer to prefer Amazon online shopping application. Non-defective products and buy now pay later facilities are consider to be the least influencing factors to prefer Amazon online shopping application. Online Shopping Plays an important role and establishes itself as an essential component in consumers day-to-day lives. However, these companies must still work hard to convince customers to stay and travel with them in order to sustain the market. With the presence of many competitors in the market, the success of the companies is dependent on the types of offers and customised products provided by them. The main factor is that customers expect these companies to respond quickly, and discount offers have a high level of customer preference. Amazon should have to analyse and develop new marketing strategy on regular basis.

## SCOPE FOR FUTURE RESEARCH

The study has explored the factors which influence the customers to prefer Amazon online shopping application rather than any other shopping websites, a future study can also be conducted on the influencing factors among other metropolitan cities because the preference of the consumer may change from period to period. There could be also a study based on the buying behavioural preference towards Amazon online shopping applications.

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**“A STUDY ON AWARENESS AND WILLINGNESS AMONG THE  
CONSUMERS TO BUY RESIDUE FREE VEGETABLES IN BENGALURU  
REGION.”**

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**ABSTRACT**

Our planet is tormented by environmental problems that reduces natural deposits and strain livelihood, many of these are because of poor industrial practises such as poor waste management, air pollution, noise pollution, depletion of natural and man- made resources. This has become a concern to all the Living organism as they face numerous challenges related to their health, wealth and well-being. Residue-free farming combines conventional processes with cutting-edge innovations. Because this approach is still in its infancy in India, it is critical to comprehend the advantages it provides to both customers and farmers. One of its most important advantages is the high quality of produce it guarantees. How ever there is little data available on the consumer base in India or the willingness and ability of the consumer to pay extra for residue-free agricultural produce. The present paper presents the study of consumer “Awareness and Willingness among the consumers to buy the residue free vegetables in Bangalore Region”.

**KEY WORDS** Farming, chemical free, consumer, Price willingness, Residue-free, vegetables

**.1.1 INTRODUCTION :**

Residue-free farming was born out of a growing consumer awareness of their health and the necessity to remove chemical traces from fruits and vegetables. It is, as the name implies, a type of agriculture in which toxic chemicals are replaced with naturally produced biocides and biofertilizers to assure crop protection while also promoting plant growth. In the modern era of globalization, it has become

a challenge to keep the consumers in natural environment and that is the biggest need of the time . Residue-free vegetables and fruits is extra ordinary occurrence which has developed a high significant in the modern market and has emerged as a crucial concept in metropolitan cities and developed world. At present environmental issues are at higher level. Hence Residue-free agricultural produce marketing is one of the best strategy a firm can adopt to avoid environmental issues. This chemical-free produce is an excellent alternative for modern consumers who are increasingly concerned about the quality of their nutrition. It is nutrient-dense and well-known for its antioxidant capabilities. This farming method avoids using chemicals to artificially increase the flavour of the yield by focusing on biofertilizers. As a result, we now have fruits and vegetables that are nutrient-dense while also being free of hazardous contaminants. Fruits that are residue-free, contain natural sugars that have not been chemically boosted with additives. As a result, they are healthier and have fewer adverse effects.

## **1.2 REVIEW OF LITERATURE:**

Roshny Munshi and at.el.(2020), analyzed the benefits of organic food consumption perception in western Mumbai. The study revealed that people are aware about organic food but majority are not ready to pay shell out to buy organic food to fill their plate with nutritious food.

C. Anita and Schmidt(2014), analyzed the factor that influenced on consumer's purchasing decision and evaluations of willingness to pay for environmental friendly produced vegetables in Thailand. The study revealed that the respondents were willing to pay a price premium to purchase green products.

Marcus Mergenthaler(2009) analyzed consumers' valuation of different vegetables attributes in metropolitan areas in Vietnam. Research concluded that consumers were willing to pay an average price premium of 60% for Chinese mustard and 19% for potatoes and consumer value

## **1.3 RESEARCH METHODOLOGY:**

### **Research design:**

**Type of study:** This research is conducted on a basis of convenient sampling method, as it is focused on a particular aspect of a problem. It is carried out to gather information to serve for a specific purpose. Primary data was obtained through a survey conducted on 50 respondents across Bangalore city and Secondary data Secondary data was collected from website, journals, articles and internet.

## **1.4 STATEMENT OF PROBLEM**

The majority of the population has followed the mantra "eat healthy and stay active." However, it is now critical to recognize the need for nutrient-dense fresh food that will improve one's quality of life. Eating fresh and nutritious food is one's right but increasing pollution and greediness has put an end to this routine. However, these ancient traditions, which were passed down from generation to generation, did not provide enough food to fulfil the demands of the world's fast growing population. This sparked the "agricultural revolution," in which farmers exploited technological innovations to boost production in order to fulfil the increased demand for food, as the world's population grew food production expanded, so did the use of chemical pesticides and fertilizers, resulting in environmental and health problems. But in recent times with increasing health and environmental hazards it has become important to switch to new way of living which could bring a positive change to both the consumers and environment. Thus an attempt is made to study the awareness and willingness among the consumers to buy residue-free vegetables and fruits in Bengaluru city.

### 1.5 OBJECTIVES OF THE STUDY

1. To study the awareness of residue- free vegetables among the residents in Bengaluru.
2. To know the willingness among the consumers to buy the residue- free vegetables.

### 1.6 LIMITATIONS OF THE STUDY

1. The study is limited to Bengaluru city.
2. The Study is conducted for less than 30 days so that the result may vary.
3. The result of the study cannot be generalized.

### 1.7 TABLES AND INTERPRETAION

#### 1.1 Demographic profile of respondents

S.NO	ATTRIBUTE	CATEGORY	NO.OF RESPONDENTS	PERCENT TO TOTAL
01	<b>AGE</b>	20-30	6	12
2		31-40	24	48
3		41-50	15	30
4		51 & above	5	10
1	<b>GENDER</b>	Male	26	52
2		Female	24	48

1	<b>Occupation</b>	Salaried	43	86
2		Self employed	6	12
3		Others	1	2

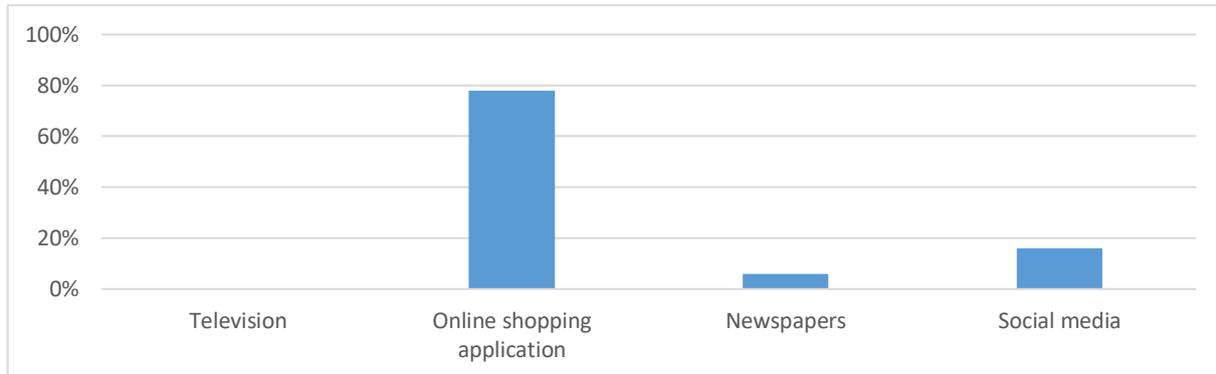
The above table shows 48% of respondents belong to the age group of 31-40, 30% are in the age of 41-50, 12% are in the age of 20-30 and 10% in the age bracket of 51& above. As per gender classification 52% are male and 48% are female. 86% of the respondents are salaried, 12% are self-employed and 1% are occupied in various other occupation.

**1. Awareness of residual-free veggies.**

<b>PARTICULARS</b>	<b>NO.OF RESPONDENTS</b>	<b>PERCENTAGE</b>
Yes	50	100%
No	0	0
Total	50	100%

All the respondents are aware of the availability of the Residue- free vegetables in Bengaluru city.

**1.3 Table depicting the means by which respondents learnt about residual-free vegetables.**



78  
%  
of

them learnt about residue-free market through online, 8% respondents claimed that they learnt through social media, 3% learnt from newspaper and none from the television.

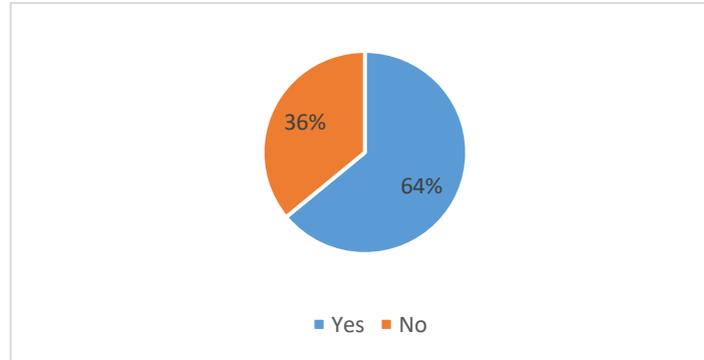
**1.4 Recent purchase of residue- free vegetable and fruits.**

<b>Particulars</b>	<b>NO.OF RESPONDENTS</b>	<b>Percentage</b>
Yes	32	64%
No	18	36%

Total	50	100%
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64% of the respondents purchased residue-free veggies recently and 36% did not.

### 1.5 Respondents willingness to pay extra for residue-free vegetables



The above graph reveals that 64% of the respondents agreed to pay extra for residue-free vegetables whereas 36% denied.

### 1.6 Reasons for buying residue-free veggies.

Particulars	NO.OF RESPONDENTS	Percentage
Environmental issues	10	20%
Social status	5	10%
Freshness and Taste	15	30%
Health	20	40%
Total	50	100%

40% of the respondent's prime reason behind purchasing residue free vegetables is health, 15% of the them purchase because of its taste and freshness, 10% of the respondents buy to protect the environment and the remaining 5% buy to showcase their social status.

### 1.7 Ease of availability of residual free vegetables in the market

Particulars	NO.OF RESPONDENTS	Percentage
Yes	39	78%
No	11	22%
Total	50	100%

78 % respondents opined that residue-free veggies are easily available in the market, 22% opined that it did not.

### 1.8 Preferable medium to purchase residual free vegetables

Particulars	NO.OF RESPONDENTS	Percentage
Manufacturers	0	0%
Wholesalers	2	4%
Retailers	17	34%
Online	31	62%
Total	50	100%

62% of the respondents purchases residue-free veggies through online, 16 % purchases directly from Retailers, 2% purchases from wholesalers and none purchases from manufactures.

### 1.9 Satisfaction level of respondents on use of residual free vegetables.

Particulars	NO.OF RESPONDENTS	Percentage
Yes	45	90%
No	5	10%
Total	50	100%

Majority i.e. 90% of the respondents are satisfied consuming residue-free veggies and 10% are not satisfied.

### 10. Utility level of respondenst on consuming residue free veggie.

Particulars	NO.OF RESPONDENTS	Percentage
Proud	24	48%
Pleased	10	20%
Indifferent	10	20%
Displeased	6	12%
Total	50	100%

48% feels proud to consume residue free veggies, 20% felt pleased and indifferent and remaining 12% are displeased with the consumption of residue-free vegetables.

### 1.11 Respondents' opinion to purchase residue-free vegetables in the future.

Particulars	NO.OF RESPONDENTS	Percentage
Yes	50	100%
No	0	0%
Total	50	100%

100% of the respondents agreed that being environmental friendly is important and are likely to purchase and consume residue-free veggies in the future.

### 1.8 FIDINEGS AND SUGGESTIONS:

1. Most of the respondents are in the age group of 31-40 and belong to salaried class.
2. 100% of the respondents are aware of availability of residue-free vegetables in Bangalore and learnt the concept and availability of residue-free vegetables in Bengaluru region through online shopping applications.
3. Majority of the respondents has purchased residue-free vegetables in the recent past and are willing to pay surged up prices.
4. 40% of the respondents purchased residue-free vegetables as they are concerned with their health.
5. 72% of the respondents opined that residue-free vegetables are easily available in the market and most of them purchased the product through online.
6. Majority of the respondents are satisfied consuming residue-free vegetables and feels proud consuming it.
7. 100% of the respondents agrees to continue buy residue-free vegetables in the future.

### 1.9 CONCLUSION:

This study aimed at understating the consumer perception towards the residue-free vegetables in Bengaluru region. The findings established the actual status of the residue-free vegetables in Bengaluru. Bengaluru Consumers are also ready to pay surged up price for the vegetables as they have plenty of health benefits. Most of the respondents are young and are worried about their health thus resorts to the consumption of residue-free vegetables. Residue free vegetable are easily available

through online market, which means Bengaluru has easy access to residue-free agricultural products as online delivery of fruits and vegetables are quite popular in the city. Residue-free farming tends to reduce the environmental imbalances. This induces the customers to purchase residue-free vegetables and tends to feel fresh and comfortable to maintain healthy life naturally as well as it keeps safe and peace in nature.

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# THE IMPACT OF FEAR OF MISSING OUT (FOMO) ON PRODUCTIVITY AND EMOTIONAL WELL-BEING OF IT EMPLOYEES

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## ABSTRACT

The widespread adoption of social networks into a number of areas of people's life has drawn academics' attention to (DOSM) which means the dark side of social media in the literature. Here employees' usage of social networking sites for their personal use during work hours and its effects on their job outcomes is a relatively understudied situation in this regard. Because accessing social media during work hours might have a negative impact on productivity and emotional well-being. The hypothesis was tested by analysing 159 responses from IT professionals using correlation and regression analysis. The result of this study is that FOMO has a favourable relationship with both productivity and emotional well-being, implying that FOMO has a greater impact on workplace productivity.

**KEYWORDS:** FOMO, Productivity, Emotional well being

## INTRODUCTION

FOMO (fear of missing out) has recently gotten a lot of attention from academics. This Phenomena usually refers to a person's fears or concerns about losing out on socially or individually rewarding feeling in which other people have. FOMO has been the subject of a steady increase in studies over the last seven years, which can be ascribed to its proven link to online susceptibility and poor social media use habits, such as spreading false information and disinformation, sleep disruptions, and social media weariness.

A person's perception of a drop in work or job performance as a result of their use of social media, as well as the negative consequences. According to several studies, social networking sites diminish workplace productivity, and as a result, workers overlook potential benefits such as increased job satisfaction, higher organisational dedication, fewer absenteeism, improved retention rates, and increased innovative behaviour.

## STATEMENT OF THE PROBLEM

The project "The Impact of Fear of Missing Out (FOMO) on Productivity and Emotional Well Being of IT Employees" focuses on studying how FOMO can affect individual's productivity at work and how it affects once mental well- being.

### Scope of the study

The project features on the impact of FOMO on productivity and emotional well-being of IT employees. The survey is limited to 150 employees between the ages of 21 and 45. The information are intended to be collected over the course of two months. The study's geographical area is based on the Indian context. T, the current study concentrated on how FOMO affects working professionals' productivity and mental wellbeing. He current study concentrated on how FOMO affects working professionals' productivity and mental wellbeing.

### Literature Review

Most people wrongly connect their actual life with what they see or read in online entertainment, leading them to believe they are missing out on a significant opportunity. FOMO was already considered as an arbitrator between mental capacity shortages and virtual entertainment commitment. It has also been seen as a mediator between different signs of dedication.

High performing, strong affiliations have a culture that enables specialist incorporation. There is evidence that a supportive environment has a significant impact on employee satisfaction, followed by interest in clear-cut choices and, clearly, genuine settings don't have a significant impact on productivity. Both job happiness and efficiency are significantly impacted by speculation, but the impact on satisfaction is slightly more rooted than the impact on efficiency. Higher efficiency will typically give you the upper hand by reducing expenses and improving yield quality

Energetic prosperity grants you to work beneficially and adjust to the weights of standard everyday presence. It can help you with getting your greatest limit. It helps you with working with others and add to society. Express your feelings in reasonable ways. Let people close to you understand when something is aggravating you. Keeping vibes of pity or shock inside adds to pressure

### Research Objectives

1. To find out whether there is any relationship between FOMO and productivity.

2. To see if there is any connection between fear of missing out and emotional well-being.

## **Hypothesis**

H0: FOMO does not have a substantial impact on IT employees' productivity or emotional wellbeing.

H1: FOMO does have a substantial impact on IT employees' productivity or emotional well-being.

## **Variables**

This particular study has one independent and two dependent variables.

Fear of missing out (FOMO) is the independent variable, whereas productivity and emotional well-being are the dependent variables.

## **Population**

Sample The sample units are mainly from the employees working in the IT sector.

## **Sampling Technique**

The sampling technique included in this case is convenience sampling, which is a non-probability sampling method in which respondents choose to choose whether or not complete the questionnaire based on their willingness and availability.

## **Sample size**

The sample size for analysing the study is 159 employees who are working professional at IT field.

## **Sources of data**

The data used for the study is both primary data and secondary data.

- a) Primary data Here the primary data was collected through questionnaire from the employees working in the IT sector.
- b) Secondary data Secondary data for the study was collected from internet, annuals as well as journals.

## **Data collection method**

The data was collected through questionnaire which was initiated through google form. A total of thirty- seven questions was there.

## Data Analysis Tool

SPSS was used to analyse the data, and correlation and regression analyses were performed.

Correlation Analysis - Correlation is a statistical technique used to examine the strength of a relationship among both numerically recorded continuous variables.

Regression Analysis- Regression analysis refers to a set of statistical techniques used to assess the relationships between one or more dependent variables and independent variables.

## Limitations

- There is a possibility that respondents' data biases exist.
- Time constraints were faced by the professionals.

## DATA ANALYSIS AND INTERPRETATION

### Correlation analysis

Correlations				
		Fomo_t	Pro_t	Ewb_t
Fomo_t	Pearson Correlation	1	.724**	.670**
	Sig. (2-tailed)		0.000	0.000
	N	159	159	159
Pro_t	Pearson Correlation	.724**	1	.792**
	Sig. (2-tailed)	0.000		0.000
	N	159	159	159
Ewb_t	Pearson Correlation	.670**	.792**	1
	Sig. (2-tailed)	0.000	0.000	
	N	159	159	159

The significant relationship of FOMO on productivity and emotional well-being is analysed using correlation. Here Fear of missing out (FOMO) has a significant relationship with productivity and

emotional well-being where the Pearson correlation of productivity stands .724\*\* and emotional well-being stands .670\*\*.

Therefore H1 (alternative Hypothesis) has an association or support with the And H0 doesn't support with the statement

H1: FOMO does have a substantial impact on IT employees' productivity or emotional well-being

## Regression analysis

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.724 <sup>a</sup>	0.524	0.521	6.31424

The above table shows the model summary where the value of R is .724\* which means it has a strong correlation with R square value of 0.524.

The adjusted R square value is 0.521 and std error of the estimate is 6.31424

## FINDINGS

- From correlation analysis done with the help of SPSS it proved that FOMO has a significant relationship with employee productivity where Pearson correlation stands for .724% and employee emotional well-being of .670 which is above the standard 0.7. It indicates that all measuring instruments are reliable and have a good fit.
- From regression analysis it can be found that H1 is accepted with a beta value of 0.724, 0.670 and a significance of 0.001, emotional well-being has the lowest beta value of 0.670 which means it has the lowest effect on the independent variable.

## Suggestions

- The study focuses on how FOMO impacts employee productivity and emotional well-being at work, more research on how FOMO affects physical health can be conducted
- The study focuses on how FOMO impacts employee productivity and emotional well-being at work, more research on how FOMO affects physical health can be conducted
- The research could extend in other industries such as hospitality, educational industry.

- The research can be extended towards college students because they are so much active in social media platforms

## **Conclusion**

The study was primarily done among IT employees in Bangalore to determine how fear of missing out (FOMO) affects employee productivity and emotional well-being at work. We may deduce from the study that there is a substantial relationship between the independent variable, FOMO and the dependent variables, employee productivity and employee emotional well-being among IT employees. FOMO has a favourable relationship with both productivity and emotional well-being, implying that FOMO has a greater impact on workplace productivity. This may result in decreased effectiveness in their work, increased usage of social platforms as a result will lead to not completing tasks on time, and give rise to stressful working environment.

# IMPACT OF NON-MONETARY COMPENSATION ON EMPLOYEE PERFORMANCE

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## ABSTRACT

The study performs the function to investigate how non-financial incentives affect employee performance. The study helps to determine how organizations can improve employee performance, motivation and retention keeping in mind that the Human Resource in the most crucial asset to any organization. The purpose of the research focuses on examining and interpreting the impact of non-monetary compensation and helps to connect the elements of non-monetary compensation to the performance and impact on people contributing their services, skills or manpower to the organization. A total of 100 samples were selected across India from employees working in various MNC's and organizations functional in areas such as IT, manufacturing, service based etc. using simple random sampling technique from which data and information were collected by means of a questionnaire. The non-monetary incentives such as job security, good working condition, participation in goal setting, achievement, staff recognition, job enlargement, incentives that address social needs, improved working conditions, and fringe benefits proved to have an impact on the employees output in an organization. The inquiry involves a detailed analysis on how the factors considered as non-monetary compensation can lead to better productivity and efficiency with employees and why organizations are using it as a tool to increase the sense of motivation, loyalty, positive attitude towards a given situation which leads to the overall growth prospects of the organizations to be accomplished.

## INTRODUCTION

In a growing economy, the need for human resources to make ends meet in the business terms of accomplishing tasks is essential to grow and survive in the market the business is functioning in. Compensation in basic terms is referred to as the monetary or non-monetary contribution which the receiver of a service or goods provides to the provider of the same in the business economy. Compensation acts as a medium to motivate, to fulfil the needs of survival and to maintain a standard

of living in the society. Compensation acts as a factor which increases the output as an employee will be willing to put in his skill or knowledge required to fill the difference in the actual stage or primary target to the goal that he/she has to meet. Hence, we can also say that compensation will be the primary factor to enable an understanding as to how the output from the human resource end works. A happy and satisfied employee will perform in the direction of the management's objective and the companies will benefit from this as it would eventually reflect in the output. Workplace motivation is more than just an essential as it is the driving force to ensure that employees are positive in their approach towards the accomplishment of tasks which are meant to be exercised and accomplished via the due course of daily business. These motivators are divided into monetary and non-monetary compensations based on their nature and the characteristics they follow. Non-Monetary incentives are non-cash perks or benefits provided by an employer to an employee.

### **BENEFITS OF NON-MONETARY COMPENSATION**

- **Retention of Employees:** Non-Monetary Compensation acts as a tool to motivate employees by recognizing their contribution, rewarding them for the same which instills the feeling of security in the mind which at the end would lead to retention of employees.
- **Employee Engagement:** Elements like team outings, time off during work hours, creative activities during paid leaves (sports day, annual meet-ups) engage the employees better and create a positive impact in the performance of the employees.
- **Inexpensive:** The cost of implementing the non-monetary incentives is relatively inexpensive keeping in mind the cost to the company the monetary compensation contributes to the finances. The non-monetary compensation creates a path to provide a better output than the usual response that can be expected with monetary compensation.
- **Motivating factor:** The act of providing non-monetary compensation is aimed at creating motivation to ensure employees to perform better on a daily basis to develop their career simultaneously to reach the targets of the firm.
- **Positive Impact:** Monetary compensation includes recognition, reward and which increases the morale of people working in that organization, this process indeed provides satisfaction towards their contribution due to the fact of the return they receive from the employer's end.

## TYPES OF NON-MONETARY COMPENSATION

- **Recognition:** Every individual works with their efforts being in the highest level of proficiency. Management can provide a sense of accomplishment to the employees by merely recognizing what they contribute to the organization which helped them to grow, develop and serve the target market or even the fact that a probable risk or unforeseen situation is handled.
- **Flexible work hours:** This element works as a top non-monetary option in most organizations. This provision enables employees to complete their targets or goals at a predetermined fixed period but with an option to work as per their convenience. Flexible work hours may also involve provisions which can be inculcated to better serve the needs of employees.
- **Extra leaves:** Considering the performance and the growth prospects an employee brings to the organization, options to enable extra leaves should be a part of non-monetary compensation which helps the employees to maintain both an equilibrium with his work-life and ensure better performance. Leaving early on a given day or starting late on a day is also considered as a part of non-monetary benefits.
- **Mentorship Program:** This is a one-on-one session where the assessment of performance and analysis of the same, tips to improve performance, skills that would enhance the output when inculcated. Mentorship programs enable better growth and development opportunities.
- **Personalized Non-Monetary Rewards:** The employee here can choose what non-monetary compensation they are entitled to receive from the employer's end. This is possible only in firms which have an option to personalize the rewards. Some instances include providing employees to perform their own projects, participating in welfare and volunteering activities.
- **Rewards and Appreciation:** As a part of acknowledging the efforts of the employees towards the benefit of the organization, the management can host events where the employees who perform tremendously are awarded and a speech of appreciation by the person who guides him is given. This sure works as a motivating factor to the employees.

## REVIEW OF LITERATURE

Motivation may also be defined as the drive that prompts one to act or behave in a certain way or at least to develop an inclination for specific behaviour (Kim and Lee, 2008).

According to Sansone and Harackiewicz, (2000) motivation can either be intrinsic and extrinsic motivation. Intrinsic is a condition where a process of self-generated intentions define a person's behaviour or decision making ability while extrinsic is where the motivation is generated due to incentives or material rewards which impact the performance and decision making ability of employees.

According to Ivancevich & Matteson, 1988. Performance is considered to be related to the concepts of ability, opportunity and motivation. It focuses on the quantity and quality of employee output

## **OBJECTIVES**

- To find the need for non-monetary mode of compensation in a competitive economy.
- To study the impact and response of employees towards various elements and factors involved in non-monetary compensation.
- To study the benefits and advantage that a business can gain in the course of adapting non-monetary mode of employee compensation.

## **STATEMENT OF THE PROBLEM**

The human resource sector places a significant emphasis on employee performance since employees continuously work to meet the organizational objectives. In my investigation, I've focused exclusively on how non-monetary compensation plays a crucial role in enhancing employee's performance.

## **RESEARCH DESIGN**

In this research paper, data is collected using both primary and secondary means. The primary data is collected through a well-designed, structured and comprehensive questionnaire. The population of the study consisted of 100 employees across India working in various MNCs. The questionnaire was made available as a soft copy which was prepared using google forms and was circulated through mails, social and digital media. Further, secondary sources of data like internet, books, have been used for review of literature and conceptual reference. 111 responses were received out of which only 100 were considered for the research paper as the remaining were incomplete.

## **LIMITATIONS**

- One of the major limitations of the study is the willingness of employees to fill in the questionnaires.

- Limited access to information.
- Ignorant and impartial responses from the respondents.

## **FINDINGS**

In the current economy, the need to inculcate both types of compensation are essential as employees themselves pay emphasis on the non-monetary compensations as it assists in their career growth. The findings show that employee recognition, training and development, job security, rewards and incentives affect and contribute to the success of an organization as they directly affect employee motivation. The study reveals that employees appreciate and value non-monetary incentives and they would like the organization to provide them with the same which acts as a motivational and driving force for them. The study further shows that employees enjoy three benefits the most: Flexible work, job security and special recognition. The employees appreciate the provision of the above three factors as they inspire them to work at a given organization despite the challenger that they may experience or face in other aspects. Various other provisions and allocations are provided with an aim to enforce a better working environment which is entrusted with higher loyalty, better understanding between employee and employer, balanced financial management, motivation and positive approach to a given goal to meet the organizations end objectives.

- It is found that employees choose a firm which has major emphasis on non-monetary aspect of the compensation process as it encourages the employees to work better and improve performance by enhancing ease and flexibility in the workplace.
- During the course of analysis, it was observed that the employees have realized that not only monetary compensation serves their career growth but also the elements of non-monetary compensation add to their career which is essential to develop themselves and perform better.
- It was further observed that employee recognition and acknowledgement for work done acts as an integral part of non-monetary compensation. It works as an element of motivation which enables employees to perform better.
- It is discovered that a positive, structured, safe working environment is surely what each employee who is providing his/her contribution to the organization is entitled to.
- It is noticed that employees find it essential to have job security and reliability which encourages them to perform better and to put in their best efforts.

## RECOMMENDATIONS

- **Provide Flexible Work:** Organizations should inculcate flexible work as a part of their day-to-day business activities to ensure increase in productivity of the employees. Flexible work may include: Flexible timing, work from home facility, hybrid option and 3 or 4 days work week.
- **Mentorship Sessions:** With the increasing competition in all sectors, the need to develop the skills essential in the current work and also the future helps employees best serve the purpose of employment. Mentorship sessions help to analyse the individual performance, attend to weaknesses and suggest new skills to be inculcated in the upcoming days.
- **Growth Opportunities:** Growth opportunities are openly available in any organization. The sector in which the employee works should hold the responsibility to increase the growth prospects by including tougher tasks to be accomplished, managing risks, emphasizing on independent decision making of employees.
- **Rewards and Recognition:** Every employee invests his/her efforts, skills, knowledge and time with the prime objective of meeting the goals which are predetermined by the management. As a part of providing a sense of gratitude to the employees, rewards (momento, gift card, coupons) are provided to employees who performed best during a given period. Functions, annual fests or meetups are held by the organization periodically to recognise the efforts of the employees.

## CONCLUSION

This analysis facilitates the process on how businesses can develop motivation, employee efficiency and retention as an integral part of business objective by treating human resources as an asset in its day-to-day business. Non-monetary compensation helps the organization to provide support, recognition, rewards, flexibility to employees who work by applying their expertise, skills, efforts to achieve organizational objectives. This study helps to bridge the elements of non-monetary compensation to the efficiency, performance, adaptability and loyalty of employees. A sum total of 111 samples were received for data interpretation and further analysis out of which 11 samples were not complete or satisfactory for further analysis which leads them to be excluded from the sample population. The major areas of response were from employees belonging to are: manufacturing, textile. Information Technology based sectors, serviced based. The adoption of simple random sampling was needed to collect the data across all over the country. The research involves a thorough

interpretation via a systematic analysis to detect various elements and factors included in non-monetary compensation. They include: flexible working hours, hybrid or work from home, recognition in both internal and external spaces of the organization, good working condition, participation in goal setting, job security to name a few. This research study helps organizations irrespective of their capital investment or scale of operation to realise the essence of adapting non-monetary compensation in the due course of their business.

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# A STUDY ON CONSUMER SPENDING VIA CREDIT CARDS IN BENGALURU CITY URBAN

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## ABSTRACT

A credit card is issued by any bank that allows customers to borrow funds from the bank to make transactions with certain merchants that accept credit cards. The customer is required to return the principal amount as well as a certain percentage of interest within the given time. In this study, how a consumer spends money on goods and services using credit cards will be observed and studied. People were not aware of the benefits credit cards reaped and thus were hesitant to use a credit cards. People still may be unaware of how to use a credit card and what are the advantages of using it. You either earn cash or other rewards for using a credit card in your everyday transactions and it also acts as a good budgeting tool to see where your money goes each month and you can make necessary adjustments. The usage of credit cards can become disadvantageous when you make payments using a credit card that you cannot later afford to pay back.

**KEYWORDS:** Credit card, Transactions, Principal amount, Interest, Unaware, Advantageous, Disadvantageous

## 1.INTRODUCTION

India has one of the fastest growing economies in the world but it still has not moved forward when it comes to accessing formal credit. This is mostly because of literacy rate being low in our country. People are not educated about the uses and benefits credit cards offer. However, in the past decade the use of credit card has become more and more popular. People find it hassle free to carry a plastic card rather than money or a check book.

The other reason why Indians are not reaping the benefits of credit cards is because 40% of them do not have bank account. Credit cards have not only become an integral part of people living in urban area but also smaller part of the towns and even villages. This is why public and private banks are making an effort to promote the usage of credit card not only in urban areas but also villages.

Technology also plays a major role in the banking sector credit card system. Today, technology has transformed banking from manual to technology driven systems. In this transformation, the role played by credit card is very significant.

## **2. REVIEW OF LITERATURE**

Sarma E. J (1989), used the 'Lifestyle' concept to understand the users of credit card psychographically in 1989. He concluded that "the customers of credit score playing cards in evaluation to non-users showcase a modern country of mind and reject conservative conventional standards, can suggest that the kind of purchases that can be made on credit cards will be viewed as 'luxury or necessity' based on the life in preference to widely classifying them for all businesses. Mandeep Kaur (2011) 20, opinion of cardholders and member institutions in relation to plastic money in India is a study that examines consumer perceptions as well. Member institutions are responsible for the use of plastic money.

## **3. RESEARCH DESIGN**

### **a) RESEARCH OBJECTIVES**

- To study the awareness among people in Bangalore city urban regarding credit cards.
- To study the purpose and usage pattern of people in Bangalore city urban.

### **b) RESEARCH METHODOLOGY**

The study was conducted in Bangalore urban city with a sample of 100 respondents. This research utilises primary data and secondary data. The primary data was conducted by sending a survey of structured questionnaire and interview method. Secondary data was collected books, magazines, journals and Government articles. This research includes both structured and unstructured methods.

### **c) SAMPLING DESIGN**

Random sampling procedure for identifying and selecting respondents for the research paper. A sample size of 100 respondents has been recorded who use credit card from various strata of society like students, employees, retired citizens.

### **d) LIMITATION**

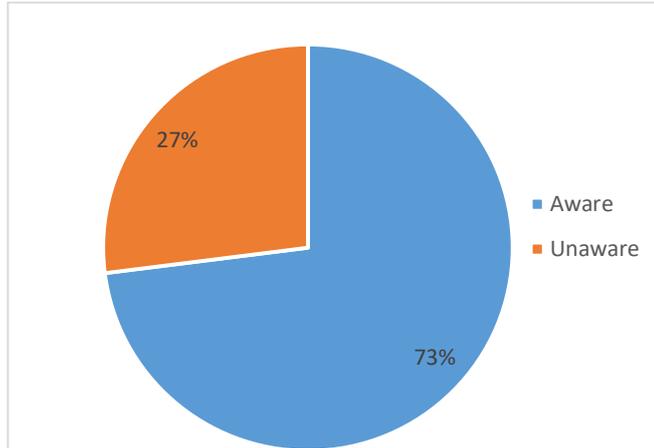
- Received incomplete surveys.

- Personal bias in respondents providing answers may not be taken into consideration.

**4) DATA ANALYSIS AND INTERPRETATION**

**FIG NO 1**

**HOW MANY PEOPLE ARE FULLY AWARE ABOUT HOW A CREDIT CARDS WORK**

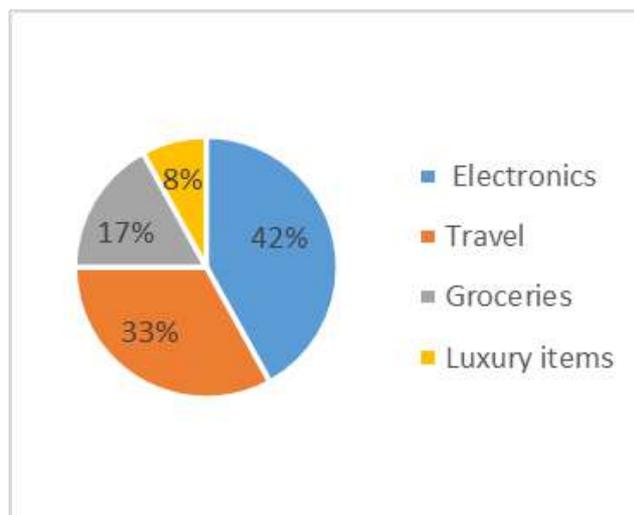


**INTERPRETATION**

More number of respondents are aware (73%) than unaware (27%).

**FIG NO 2**

**WHAT CONSUMERS SPEND ON USING A CREDIT CARD**

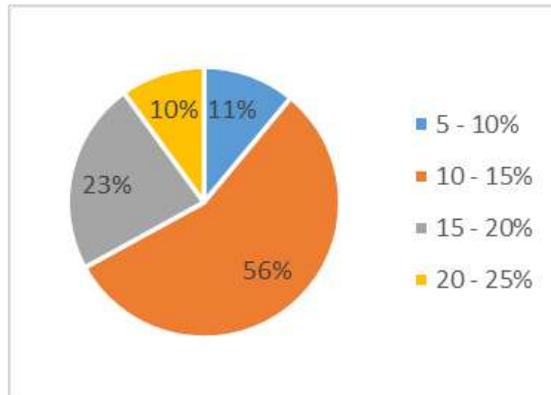


**INTERPRETATION**

The majority of the respondents spend on electronics and appliances (42%) followed by travel (33%), groceries (17%) and lastly luxury items (8%).

**FIG NO 3**

**HOW MUCH OF THEIR INCOME DO THEY SPEND MONTHLY PAYING BACK THE CREDIT CARD COMPANY?**

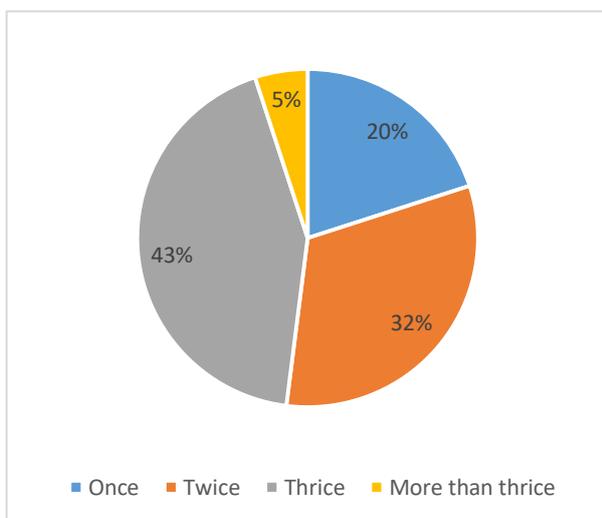


**INTERPRETATION**

The majority of respondents spend 10 - 15% (56%) of their income monthly on paying back the credit card company followed by 15 – 20% (23%), 5 – 10% (11%), 20 – 25% (10%).

**FIG NO 4**

**HOW MANY TIMES A MONTH DO YOU USE YOUR CREDIT CARD**



## INTERPRETATION

Most of the respondents use their credit card thrice a month (43%) followed by twice a month (32%), once a month (20%) and lastly more than thrice a month (5%).

## 5) FINDINGS AND IMPLICATIONS

**Key findings are as follows:**

1. Majority of the people are aware about how to use a credit card and the benefits and disadvantageous it has from over using it irresponsibly.
2. Majority of the credit card user are employed and live on monthly income.
3. Majority of the credit card users spending money using credit card to pay for item that they need and not want.
4. Most of the respondents spend very little of their income on paying back the credit card company.

## RECOMMENDATION

1. The government should make an effort in educating citizens about the advantages and disadvantages of credit cards.
2. Credit card provides extra pillow in case of emergency where gives protection from adverse events.
3. Credit cards should be used prudently, as purchasing irrational items can result in debt.

## 6) CONCLUSION

The researcher commissioned a quantitative and qualitative study consumer understanding in the use of credit cards, its impact on purchasing behaviour decisions and their impact on credit card debt and savings credit card users' attitude and well-designed credit card strategies cards. Credit card users in the age group 18 - 30 years, male, married, private sector earning more than Rs.25,000 high social influence, positive attitude, and high motivation, showing an addictive personality, possessing a better view of risk and finding that wrong decision makers who are not very careful at the time of purchase behaviour.

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## **A COMPARATIVE STUDY ON CONSUMERS' BUYING BEHAVIOUR TOWARDS RELIANCE JIO AND AIRTEL**

**—SPECIFIC TO PATNA**

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### **ABSTRACT**

The Telecom industry in India has been maximum developments in the field of communication. The telecom industry has resulted in maximum innovation in the concept of mobile phones. The smart mobile phone has provided lot of convenience and comfort in the life of an individual. The Indian market is governed by large number of telecommunication companies out of which the most prominent ones are Airtel and Jio. In a survey, it is seen that an individual user carry at least two number from two different telecom companies. It is also observed that commonly used mobile services are Jio and Airtel. This study is an effort to find out the reason behind having two numbers and to know the factors that are responsible for a choice between Airtel and Jio. Primary data would be collected by a questionnaire and analysis would be made to understand the background of preference and choice of Telecom Company.

### **OBJECTIVE**

The objectives of this Research is to ascertain the comparison between the customers' buying behavior with respect to two remarkable companies Reliance Jio and Airtel specifically in Patna. This Research has also tried to find customers' buying perception based on their age group and profession. Following are stated the objectives of this Research:

- 1 to ascertain the customers' perception, choice and preferences regarding two respective telecom service providers in Patna
- 2 to find out the problems faced by customers while using the services provided by the telecom companies
- 3 to find out which telecom service provider the customers prefer the most
- 4 to find out which feature attracts the customer towards that telecom service provider
- 5 to know the customers' loyalty towards their respective telecom service provider.

## HYPOTHESIS

- 1 Majority of the respondents may prefer Jio on top of Airtel.
- 2 Respondents may not be satisfied with 4G internet services provided by both the telecom service providers.

## RESEARCH METHODOLOGY

### RESEARCH DESIGN

#### Descriptive

The purpose of descriptive research is to describe the characteristics of various aspects, such as the market potential of a product/company or demographic data and the attitudes of consumers who buy the product with the help of primary data collected.

### DATA COLLECTION

The goal for all data collection is to capture quality evidence that then translates to rich data analysis and allows the building of a convincing and credible answer to questions that have been posed.

#### Primary Data

Primary data was collected from various people and their opinion and information for the specific purposes of study that helped to run the analysis. The data was collected through questionnaire to understand their experience and preference towards their loyal company.

## Secondary Data

To make primary data collection more specific, secondary data will help to make it more useful. It helps to improve the understanding of the problem. Secondary data was collected from various sources such as different business websites and published papers.

**Data Collection Tool:** Data collected through a structured questionnaire.

**Data analysis tool:** Data analysis is done using graphical techniques such as the column chart and the comparative analysis is represented by horizontal and vertical bar chart and pie chart. The data collected was analyzed using percentage.

**Survey Area:** This research has been done specific to Patna.

**Sample Unit:** The sample unit were customers of Jio and Airtel.

**Sample Size [(n) = 100]:** Total sample size covered is 100.

## INTRODUCTION

India is the world's second-largest telecommunications market. The telecom market can be split into three segments - wireless, wireline and internet services. Total subscriber base in the country stood at 1,167.81 million as August 31, 2020. The wireless market segment accounted for 98.29% of the total subscriber base as of August 2020. Rural subscribers comprised 44.95% of the total telephone subscribers as of August 2020.

India is also the second largest country in terms of internet subscribers. India is one of the biggest consumer of data worldwide. As per TRAI, average wireless data usage per wireless data subscriber was 11 GB per month in FY20. Gross revenue of the telecom sector stood at Rs. 66,858 crore (US\$ 9.09 billion) in the first quarter of FY21. Strong policy support from the Government has been crucial to the sector's development. Foreign Direct Investment (FDI) cap in the telecom sector has been increased to 100% from 74%. FDI inflow in the telecom sector totaled US\$ 37.27 billion during April 2000-June 2020.

The Government of India, through its National Digital Communications Policy, foresees investment worth US\$ 100 billion in the telecommunications sector by 2022.

While RIL's telecom arm merely just a year back was the only operator to gain market share, Sunil Mittal Bharti's Airtel is also making a strong comeback with the telecom sector now heading towards becoming a duopoly instead of once feared monopoly.

Mukesh Ambani's Reliance Jio is now not the only one emerging strong on India's telecom scenario. While RIL's telecom arm merely just a year back was the only operator to gain market share, Sunil Mittal Bharti's Airtel is also making a strong comeback with the telecom sector now heading towards becoming a duopoly instead of once feared monopoly. In fact, both Reliance Jio and Bharti Airtel have been witnessing an increase in their subscribers' base now while Vodafone-Idea continues to shed users.

Meanwhile, the telecom sector is one of the rarest sectors which has done better than others during the coronavirus pandemic. With people restrained in their homes, the telecom industry played a pivotal role in keeping people connected with the help of voice and data connection. The industry also tried to engage subscribers with entertainment options such as video streaming applications, online games among others. This, combined with 'work from home' practice for employees has resulted in average data consumption to touch all-time high in Q1FY21, according to a separate report by CARE Ratings.

## **FINDINGS**

This research is concerned with various people of different age group and profession and attempts have been made to find their perception regarding two telecom companies namely Reliance Jio and Airtel specifically in Patna. Following are the findings:

- Majority of the respondents to this research were between the ages of 21-30 and about 58% of the respondents are students.
- 47% of the respondents prefer Jio for most of their purposes and this percentage for Airtel is lower as to 39%
- Jio with its arrival in the market had acquired huge customer base leaving behind Airtel and it continues to expand.

- Analyzing the respondent's opinion on quality of services provided, it was found that the quality of services provided by Airtel is much stronger as compared to Jio. The percentage of respondents rating Airtel's service to be excellent is more as compared to Jio.
- Majority of the respondents choose their preferred telecom service provider on the basis of internet speed and strong network connection. Good quality internet and network connection is an important feature that a telecom company always needs to focus on.
- Majority of the respondents feel the Jio's data pricing is wither cheap, economical or normal as compared to Airtel. Percentage of respondents who feel Airtel data pricing is expensive is more as compared to Jio.
- The percentage of respondents that chose to stay loyal to Jio is higher than that of Airtel.
- At the end, it was found that though Jio provides satisfactory services and is much affordable, Airtel still wins in overall performance in the opinion of the respondents due to its remarkable quality of services.

## CONCLUSION

This research report is conducted to compare the two biggest competitors in all time in the telecom sector. In this research we find that the both Jio and Airtel are well-established companies in the market. Customers are aware about the name of both the companies. They prefer to buy both. Airtel is preferred by the every class and it established itself as a better quality and better service provider then its competitors.

But Jio is too giving fierce competition to Airtel by providing good enough internet speed, voice call quality, etc. at very economical prices. Due to the growing need of more and more data to carry out day to day heavy digital chores, young customers and employed people prefer Jio for the comparatively good amount of data packs it provides at low price than Airtel.

The result is that the Jio and Airtel both are ruling the telecom industry equally. The fact that makes a difference is that customers prefer Jio for its adequately good services at economical rates that is not bad at all but in the opinion of the customers, Airtel ultimately wins in the overall performance since its quality of services is exceptionally good.

# SECURITY SCHEME FOR GROUP COMMUNICATION IN INTERNET OF THINGS USING LIGHTWEIGHT KEY

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## ABSTRACT

To provide better secure communication in the Internet of Things (IoT) technology is a challenging task due to security vulnerabilities of IoT devices. Group key management approaches have been proposed to provide robust security solutions for the transmission of the data in IoT. However, in less secure environment of IoT, group communication is not suitable, since key exchanges among group members are vulnerable to security attacks. In this paper, a lot of effort put forth to study various group key management protocol schemes and finally to propose an efficient distributed lightweight group key management scheme to prevent attack on the IoT devices /users and to manage frequent changes in number of devices and users.

## KEYWORDS:

Group key, Internet of Things, Key management, Group communication, Security attacks

## 1. INTRODUCTION

The Internet of Things (IoT) is an interconnected smart objects(/devices) evolved with communication protocols to enable services and allow them to communicate among smart objects. IoT achieves intelligence using context awareness which is an ability of a system for the users to provide information about certain entities. An entity can be a person, place, software, or any object. Basically, the IoT is a resource-constrained network due to the nature of power, memory, and limited user interface. So, to preserve the entities, an IoT application like Group Communication, Dynamic Deployment etc. involves multicast operations among the sensors and the actuators[1]. Mostly the Group Communication is used in smart meter applications, home automation and transportation systems[2]. Multicast operation is mainly used to transmit the data between various devices and also it is more vulnerable to many security attacks. So, to transmit the multicast information in a secure way among a certain group, the traffic should be encrypted and a common group key has to be shared

among all the members in a group. The group key has to be updated, whenever membership changes. Hence, strong authentication mechanisms are needed during the registration process and to acquire the identity of the devices before key distribution[3]. Thus, key management, key distribution and access control are all the components of the Group Key Management (GKM) system. GKM protocols can be centralized, decentralized and distributed. But, all the conventional GKM protocols are not suitable for the dynamic nature of current IoT scenarios and applications[4]. Therefore, many research works put efforts to carry out in enhancing these protocols to make it more suitable for current IoT networks. Mostly they are related to focus on adapting these GKM protocols for matching aspects such as mobility, scalability, resource constraint, network access technology etc. Most of these aspects have to be combined in the majority of IoT scenarios but even though they lack in addressing the resulting issues of such combination. A major technical challenge is to ensure that machines in the same group possess individual secrets so that a device cannot access the information of other devices in the same group without permission. Therefore, an efficient method for group key management scheme is necessary.

The main contribution of this work is

- Survey related to the group key management scheme is described.
- An efficient GKM for a dynamic environment is proposed.

The above-said points clearly distinguish this work from other recent works related to group key management. It gives the detail as broad as earlier works. The organization of paper as follows: Section 2 briefs the group key communication schemes. Section 3 describes various GKM approaches and proposed GKM approaches. Section 4 summarizes the current work.

## **2. BACKGROUND AND RELATED STUDY**

Several research studies are taken in IoT to provide efficient group key management protocols for group communications. It is also focused to meet the resource constraints in Wireless Sensor Networks(WSN). Notably, for large-scale distributed sensor networks and an efficient security mechanism is presented[5]. The applicability of protocols based on public-key cryptography and key management systems in IoT based on link layer is presented[6]. A novel efficient and scalable key management system for wireless sensor networks is proposed in[7]. All the above-listed works utilize the primitives of cryptographic methods to provide security in group key management protocols.

Protecting group information is achieved by using protocols such as group security association or group domain of interpretation. The protocols create the policy for security in the group and express as a token that is passed to the group communication. In this case, members can download the group

keys. The keys can be updated, whenever membership changes which are based on the mechanism defined in the security policy[8]. Hydra System is used to generate a group key for distribution. Hydra Server manages the subgroup which was divided from the large group. Synchronised Group Key Distribution Protocol(SGKDP) is used for sending message[9]. In general, group key management protocols can be either centralized, decentralized, and distributed. Only one Group Controller and Key Server (GCKS) is responsible for group key distribution and update in centralized management. The pairwise key is shared by GCKS with each member of the group and the group keys are distributed to group members based on point-to-point communication. Examples of such protocols are Group Key Management Protocol (GKMP), Logical Key Hierarchy (LKH), One-way Function Tree (OFT), Centralized Flat Table (CFT), and Efficient Large-Group Key (ELK). The large group is divided into small subgroups in a decentralized approach. Here, a group key is shared among all group members. And also in the decentralized method, every subgroup has its own subgroup key and subgroup key server to manage the subgroup key. Few examples of decentralized protocols are Scalable Multicast Key Distribution (SMKD), Dual-Encryption Protocol (DEP), Multicast key management using Arbitrarily Revealed Key Sequences (MARKS), and Intra-Domain Group Key Management protocol (IGKMP)[4]. In distributed protocols, many members are responsible in the group to generate and distribute a new group key because it has no group controller. However, this distributed process becomes difficult when group members are increasing due to the cannot be kept in a secure way. The protocols are the most complex to handle. Few examples of these protocols are Group Diffie–Hellman Key Exchange (G-DH), Distributed Logical Key Hierarchy (DLKH), Distributed One-way Function Tree (DOFT), and Diffie–Hellman Logical Key Hierarchy (DHLKH)[10].

Recent research studies are very specific to an application or a rekeying protocol. A method of group communication to preserve privacy in smart buildings of the smart grid based on Tree-based Group Diffie-Hellman (TGDH) is presented to evaluate fault tolerance. It is also assumed that the key server is always available but security is not sure in case of maintenance failure. Similarly, secure key distribution focusing on the attack is presented but there is no performance evaluation[11]. Further, in Vehicular Adhoc Networks(VANETs) and the internet of things, a centralized approach to distribute and manage group keys is used. The method is applied to vehicular communications in measuring the communication cost and also performs batch leave operation that is based on predetermined leave time. While joining the group, this leave time is stated by members and each member knows the exact time for leaving the group. Most of the research work is carried out to focus on applications such as smart grids, internet of vehicles etc.[12]. Most of the current research works

are concentrated on a few aspects of IoT such as the conditions of the application scenario is Static. But, it is not the case for the IoT. In IoT, normally the environment is dynamic in nature esp. network access, application type and status of members /devices. This raises the motivation to introduce our GKM model that adapts to the dynamic nature of IoT scenarios regarding application nature and conditions.

### 3. SYSTEM DESIGN

A group key management system design requires effective accommodation of changes in dynamic membership. The simulation environment consists of information system for IoT sensors, information subscribers, brokers that store and forward information and Key Distribution Centre(KDC) keys for controlling data access. The broker is online and untrusted while KDC is offline and trusted. The objective of the intruder(attacker) is to access information from the device without adequate authorization. The intruder can either be an outsider who has no access to any device or an insider who tries to broaden the scope of access, such as trying to decrypt information produced before or after the permitted period[13].

#### 3.1 Dynamic Environment Requirement

To support vibrant IoT environments, various devices and various users should be managed by a GKM system. In addition, at any time, devices can also join and leave the system. The scheme should attain forward and backward secrecy in order to guarantee data security.

Forward secrecy means that former group members cannot acquire future keys, and backward secrecy means that a new user cannot obtain group keys that were used prior to joining the group[13,14].

#### 3.2 Device Membership

The amount of members can alter over time as well as the number of machines. In other words, a member can join or leave at any given moment, a device can be installed or removed from the scheme. Also, membership of the devices can also change when a set of devices alter[13,14].

#### 3.3 Group Division

Users and devices are partitioned into the following groups in particular.

- Device groups consist of a set amount of device organizations based on various functionalities, levels of safety, etc. It is allocated to precisely one of the device groups when a fresh unit joins the scheme.

- User groups establish  $2^M - 1$  user organizations for M device groups. Each user is allocated to precisely one group of users based on the group of devices to which he subscribes.

KDC is responsible for managing key updates when the membership or device number changes after the system is built. Considering all combinations to which device groups users can subscribe, user groups are built and each user is allocated according to their affiliation status to one of the user groups. For each user and device, KDC generates secret keys, group keys for each user and device group, device ID for each device, traffic encryption keys and main encryption keys for handling important updates[13].

### 3.4 Initialization

Devices are divided into three distinct groups and each user is allocated to one of the seven user groups by the various device organizations to which they subscribe. For each user group, KDC calculates the master key MK and SKx slave keys for

$x < 2^M = N$  (M-Total number of device group, N- Total number of user groups), which are Logical Key Hierarchy (LKH) structures for users with SKx as root node.

Each device has its own ID<sub>ij</sub> (Device ID), unknown to other devices, and encryption key DK<sub>1j</sub> = h(TEK<sub>1</sub>|ID<sub>ij</sub>),  $1 \leq j \leq 3$  which is used to encrypt the data transmitted[13].

### 3.5 On user Joining and Leaving Group

The KDC first creates with the newly-joined user a shared secret key U<sub>i</sub>. Second, to update their Traffic Encryption Key (TEKs), the KDC can transmit a notice to other current customers in the group and to other user communities subscribing to the same device communities.

The devices update their own encryption key DK'<sub>yj</sub> = h(TEK'<sub>y</sub>|ID<sub>yj</sub>), where TEK'<sub>y</sub> = h(TEK<sub>y</sub>) when they receive the notification. For the leaving group, the KDC produces a fresh user group key SK'<sub>x</sub> and produces a fresh master key MK' accordingly. KDC sends to the remaining clients in SG<sub>x</sub> the updated SK'<sub>x</sub> encrypted with Key Encryption Key(KEKs) or secret user keys.

The ID also needs to be updated to prevent a user from providing the old ID and acquiring extra information. The new method for updating TEK' y and ID is sent by KDC[15].

### 3.6 Attack Model

The user has every device ID in the group to calculate each device key. If the ID is not updated when a user leaves the group, the user may attempt to collude with a device that has a new TEK but has no IDs from other devices.

An ID update is needed for each user leaving the incident to avoid this type of assault. However, if the IDs are separately produced and sent to each device and user, it would cause an

enormous overhead. We want users and devices to update their own IDs by sending shorter emails while maintaining some degree of diversity for device-to-device updates.

We are implementing our proposed technique based on Alljoyn, an open-source framework for IoT devices and apps to find and interact with each other in order to prove feasibility and applicability[13].

### 3.7 Simulation Environment

A device can use an announcement or a known ID to announce and find one another to advertise a message. Attackers are unable to get a lawful key unless they can achieve the KDC's Near Field Communication (NFC) range. We run our program on Linux virtual machines to simulate the computing energy of resource-constrained devices. A 64-byte block AES-256 encryption requires 720ns, while an ECC-224 decryption requires approximately 84300ns, and a 64-byte block SHA-256 feature requires 600ns. Attackers are unable to get a lawful key unless they can achieve the KDC's NFC range.

Devices in the same group can subscribe to a common service name to enforce the notion of device organizations. For example, an intelligent lock can send their emails to AllJoyn. Security, as well as a smart camera. They can add their device name to their generated encrypted emails. They can add their device name to their generated encrypted emails. Once the customers receive the email, they can parse and decrypt the emails based on the names of the appended device [13].

### 3.8 Overhead Analysis

- Users must store  $g_x$  IDs, a secret key,  $g_x$  TEKs, and  $\log(n_x)$  KEKs including SK. Devices store with the server, one TEK, one GK,  $\log(m_y)$  KEKs, own IDs and secret keys.
- When a user leaves  $x$  subgroup, devices need to do one symmetric decryption, have their own IDs updated and get the fresh device key.
- When a user joins subgroup  $x$ , devices need to update their TEK with one hash function and another hash function to obtain their fresh device keys.
- When a device joins device group  $y$ , Old devices need a hash calculation to update the GK $y$  device group key.
- When a device leaves, one symmetric decryption is carried out by the remaining devices to gain the new group key. Users need not conduct additional computations.
- There will be a communication overhead, when a user leaves group  $x$ , the KDC must send multi-casts  $\log(n_x)$  to the remaining users to update the slave key of the subgroup, one broadcast to all

subgroups about the new TEK and IDs, and multi-casts  $\log(m_y)$  to devices to update the ID keys[13].

#### 4. CONCLUSION

Group communication in the area of Internet of Things is an active area of research and experimentation. To provide better secure group communication in IoT technology, there is a need to enhance group communication management scheme to protect IoT networks from security attacks. But, providing such an efficient method for Group communication in IoT is a major challenge. In this paper, many GKM schemes are discussed to prevent the internet of things from intrusion and an efficient scheme for this purpose is found. The main advantage of this GKM scheme is that it is highly scalable with group size and the security analysis. Also it achieves better data dissimulation for dynamic environments.

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# ROLE OF TRANSFORMATIONAL AND INCLUSIVE LEADERSHIP'S STYLE IN INNOVATION: THE MEDIATING ROLE OF WORK ENGAGEMENT

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## **ABSTRACT:**

Innovation is very much needed for any business organizations. For that leadership plays a key role in the present context in organizations by stimulating high positive emotions in terms of supporting their team members to better excel in their work. In that leadership role, there are various types of leadership styles and the organizations promoted for their successful business strategy. So, the present study will analyze two leadership styles (transformational and inclusive leadership) and how it influence the employees innovation through the mediating role of engagement. Multiple linear regression analysis was performed for this study. Results revealed that both leadership styles have positive impact on employee engagement and their innovation; specifically transformational leadership style highly predicting employee engagement than inclusive leadership style. Furthermore the results found that there is a partial mediation between leadership style's and innovation. Finally implications were discussed in this study.

**KEYWORDS:** Transformational Leadership; Inclusive Leadership; employee engagement; Employee innovation; leadership styles

## **INTRODUCTION:**

Over the past century, global activities have taken place, initiating a dynamic change within the global economic competition, globalization of the labor force, the internationalization of business and transactions, and advancing information and communications technology. Such changes necessitate innovative participation to maintain viability, through the supply of innovative solutions within the present and the globalized competitive environment. Recent literature has suggested that leadership is integral to promoting employee integration and engagement, as the leader's role is a stimulus for employee satisfaction and the creation of a healthy environment (Rodriguez, 2006).

Understanding the relationship between transformational leadership and creativity helps leaders to develop and cultivate employees' capacity for creativity. Results indicated a direct and positive link

between intellectual stimulation and individual creativity (Çekmecelioğlu, H. G., & Özbağ, G. K. (2016). Organizational innovation rooted from individual innovative behavior who are working as a member in the organization (Tang, Y., Shao, Y.-F., & Chen, Y.-J., 2019). Empirical studies investigating the inclusive leadership-innovative performance connection are sparse (Qi, Liu, Wei, & Hu, 2019).

### **OBJECTIVES:**

- To find out the relationship between transformational and inclusive leadership style on employee engagement and their innovation
- To determine which leadership style highly influencing employee engagement
- To analyze the association between employee engagement

### **LITERATURE REVIEW:**

#### **TRANSFORMATIONAL LEADERSHIP AND INNOVATION:**

Many studies have suggested that transformational leaders have better relationships with their followers and play a key role in creation of a supportive climate that promote employee creativity (Cummings & Oldham, 1997; Scott & Bruce, 1994; Tierney et al., 1999). Accordingly, the leadership literature indicates that transformational leaders have even more significant role of creating and shaping circumstances that facilitate individual creativity. In other words, the four dimensions of TL including idealized influence (or charisma), inspirational motivation, intellectual stimulation, and individualized consideration promotes individual creativity by creating a supportive organizational climate (Çekmecelioğlu, H. G., & Özbağ, G. K. (2016). The study predicted that a transformational leadership style enhances employees' work engagement Tims, M., Bakker, A. B., & Xanthopoulou, D. (2011).

Transformational leadership is defined as leadership behavior that transforms the norms and values of the employees, whereby the leader motivates the workers to perform beyond their own expectations (Yukl, 1989). This leadership style focuses on the enhancement of the followers' involvement with the goals of their organization (Bass, 1985).

Transformational leadership is traditionally divided into components, namely (1) inspirational motivation; (2) idealized influence; (3) individual consideration; (4) intellectual stimulation; and (5) idealized influence attributed. Inspirational motivation focuses on the communication of an appealing

vision of the future and the use of symbols to articulate this vision. In other words, the supervisor is optimistic and enthusiastic about the future. Idealized influence refers to behaviors like showing that benefits of the group are more important than benefits of the individual, demonstrating high ethical norms, and being a role model for the subordinates. individual consideration, refers to coaching, supporting and stimulating subordinates. The supervisor acknowledges followers' feelings and emotions and their need to grow and develop themselves. intellectual stimulation, which means that the supervisor challenges the subordinate to see problems from a different perspective. In this way, the supervisor makes the workers active thinkers within the organization and consequently, the employees become more involved with the organization.

An employee who receives support, inspiration and quality coaching from the supervisor, is likely to experience work as more challenging, involving and satisfying, and consequently, to become highly engaged with the job tasks. And the hypothesis assumptions are as follows,

H1: Idealized influence attributed will be positively associated with employee engagement and their innovation.

H2: Idealized influence behaviour will be positively associated with employee engagement and their innovation.

H3: Inspirational motivation will be positively associated with employee engagement and their innovation.

H4: Intellectual stimulation will be positively associated with employee engagement and their innovation.

H5: Individualized Consideration will be positively associated with employee engagement and their innovation.

H6: Transformational leadership will be positively associated with employee engagement and their innovation.

### **INCLUSIVE LEADERSHIP ON EMPLOYEE ENGAGEMENT & INNOVATION:**

Nembhard and Edmonson (2006) coined the term 'inclusive leadership' defining "leader inclusiveness" as leaders' verbal and behavioral performance to motivate and appreciate employee contribution. Hollander (2012) defines inclusive leadership as a win-win situation for leaders and subordinates alike with the aim of a beneficially mutual relationship. He emphasized the role of subordinates in this relationship as well as their concept of appropriate leadership. Inclusive

leadership stands for positive interaction with employees. In this interaction, inclusive leadership is marked by three characteristics: openness, accessibility, and availability (Carmeli et al., 2010).

These features of inclusive leadership enhance employee satisfaction, along with expanding knowledge frames and expertise. Accordingly, employees are motivated to contribute to innovative operations, and inclusive leaders support employee participation in decision-making processes, to support “inclusive culture”. Through active decision-making and contributions, employees willingly support and implement progressive ideas. Inclusive leadership enables solid connections and reliable support of employee inputs and outputs without depending on individual output.

The study results revealed that inclusive leadership and work engagement were significantly related to IWB, and work engagement played a mediating role between inclusive leadership and IWB (Dheyaa et. Al., 2020). Also, the findings further indicated that inclusive leadership behaviors such as openness, accessibility, and availability motivated the subordinates to be engaged in IWB. To promote IWB, company leaders need to effectively engage their followers by taking pride and satisfaction in employee output, which might help employee work engagement and IWB.

H7: Inclusive leadership will be positively associated with employee engagement and their innovation.

### **EMPLOYEE ENGAGEMENT AND INNOVATION:**

Work creativity manifested in innovative workplace behavior (IWB) and employee work engagement is fundamental to maintaining firm’s sustainability and competitiveness. In this regard, this study investigates the supporting effect of innovative leadership on IWB and employee engagement by maximizing employee vigor, dedication, and absorption (Dheyaa et. Al., 2020).

Work engagement is traditionally defined as a state of mind characterized by being “positive, dedicated, absorbed, and vigorous” in the workplace. Within the framework of broaden-and-build theory, positive impact expands action, cognition, and attention, resulting in augmenting work resources. Thus, work engagement is defined as the criterion of employee proactivity, commitment in their workplace, and a method of physical, intellectual, and moral self-expression while accomplishing their missions.

Engaged employees are proactive in and enthusiastic about their respective roles, which guide them to be happily engaged in their work and be willing to embark on initiatives (Russell, Liggans, & Attoh, 2018).

Innovative workplace behavior (IWB) is the individual's conduct to initiate and deliberately integrate (within the workplace, the group, or the organization) novel and functional ideas, acts, products, and procedures (West & Farr, 1990). This claim parallels that of Janssen (2000), advocating that IWB is exemplified in the role of an employee who intentionally creates and applies new ideas for the sake of their work, group, or organizational profit. IWB denotes the exploration and application of novel and original ideas by employees while accomplishing their roles to upgrade their performance and the group and the organization.

That is why, as positive feedback on receiving practical resources, employees become more engaged in their work. Second, inclusive leaders challenge and encourage their followers to provide greater contributions to their organizations. Providing support motivates followers to overcome their job necessities. Third, through being open, accessible, and ready, leaders boost employee job satisfaction, positively impacting employee engagement.

H8: Employee engagement will be positively associated with their innovation.

#### **DATA ANALYSIS & RESULTS:**

The study analyzed the data by using IBM SPSS statistics 25 version. For checking the relationship between employee engagement and leadership's style on innovation; multiple linear regression analysis was used. First, multiple linear regression analysis the results revealed that independent variables (transformational leadership & inclusive leadership) style's are positively predicting the mediating variable employee engagement (path a)- See table.2, employee engagement and innovation regression analysis has p value below 0.05 (path b)- see table 5; then further it positively predicting the dependent variable innovation (path c, i.e., total effect)- see table 6. So, all paths have significant value in SPSS which p value has below 0.05. It shows clearly there is partial mediation between independent variables & innovation.

So transformational & inclusive leadership style have significant effect on innovation through the partial mediation of employee engagement. Furthermore in the coefficients table it clearly shows that transformational leadership highly positively predicting employee engagement than inclusive leadership. Also the anova table shows that the model has good fitness of data (i.e., 81% independent variables influencing the dependent variable) .

TABLE.1

**Model Summary**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.811 <sup>a</sup>	.657	.636	.48320

a. Predictors: (Constant), inclusive\_ledaership, transformational\_leadership

TABLE 2

**ANOVA<sup>a</sup>**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	14.334	2	7.167	30.697	.000 <sup>b</sup>
	Residual	7.472	32	.233		
	Total	21.806	34			

a. Dependent Variable: employee\_engagement

b. Predictors: (Constant), inclusive\_ledaership, transformational\_leadership

TABLE.

3

**Coefficients<sup>a</sup>**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.102	.512		.200	.843
	transformational_leadership	.643	.144	.554	4.455	.000
	inclusive_ledaership	.311	.108	.359	2.885	.007

a. Dependent Variable: employee\_engagement

TABLE. 4

**Model Summary**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.792 <sup>a</sup>	.627	.615	.45084

a. Predictors: (Constant), employee\_engagement

TABLE.5

ANOVA<sup>a</sup>

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	11.251	1	11.251	55.354	.000 <sup>b</sup>
	Residual	6.708	33	.203		
	Total	17.959	34			

a. Dependent Variable: innovation

b. Predictors: (Constant), employee\_engagement

TABLE. 6

ANOVA<sup>a</sup>

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	13.002	2	6.501	41.963	.000 <sup>b</sup>
	Residual	4.957	32	.155		
	Total	17.959	34			

a. Dependent Variable: innovation

b. Predictors: (Constant), inclusive\_leadership, transformational\_leadership

TABLE. 7

Coefficients<sup>a</sup>

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.450	.417		1.080	.288
	transformational_leadership	.473	.118	.450	4.029	.000
	inclusive_leadership	.404	.088	.514	4.604	.000

a. Dependent Variable: innovation

So, summary of the results concluded that transformational & inclusive leadership's style have positive relationship with employee engagement and their innovation. Particularly, transformational leadership has high positive impact on employee engagement than inclusive leadership. Furthermore, employee engagement positively influencing their innovation.

**IMPLICATIONS & CONCLUSION:**

Few implications are mentioned in this present study. First, the generalization of our findings may be limited due to low sample size. Second, there may many other variables that lead to creativity not only transformational leadership such as organizational culture, psychological empowerment, support for creativity and innovation, and so on might be profitable. Finally from the leadership styles transformational leadership has high positive impact on employee engagement and thus leads to their innovation than inclusive leadership.

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## ROLE OF WOMEN IN WORKPLACE

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### ABSTRACT

It is in achieving the management of growth for the greatest benefit of all members of the society that we believe women can make a substantial contribution. Sayings such as “Women hold up half the sky” are common to many cultures i.e. to say, the importance of women is apparent in most societies. To a large extent, however the expression ‘behind every great man stands a woman’ exemplifies women’s role in every sphere of life.

For centuries, women’s appropriate values in the family, ensures a well-ordered household. These activities enable other Endeavors to continue. Without these activities, no other coherent activity would take place. Viewed from that perspective, the role of women in society is evidently critical.

Historically, this enabling role for women is apparently quite natural. Women biologically are the child-bearers. In consequences the family is over focused, established, and her influence starts from the home.

World is changing as we moved into 21<sup>st</sup> century. Women need to be willing to adopt a more active role and men need to be willing to accept and even encourage their role. The changes that have given rise to this changing role for women are many. Among them, is economic development itself. As countries grow, and develop economically, the behind the scenes family role is less time consuming. Modern conveniences make housework easier and education is formalized through institution.

At the same time, the formalization of education has meant that, in many locations, women now receive the same, or at least comparable, education to men. These rater fundamental changes in the society call for a parallel change in women’s role.

A number of corporate Indian women have achieved leading positions and have done us proud both at home and across seas. But despite all this, women employees and workers continue to be haunted by problems like discrimination, sexual harassment, indifference and insensitivity. Notwithstanding all this, we salute that ‘women employees’ who carries the body in her womb and

the project deadline in her mind with equal ease and aplomb. It is no longer “a women behind every successful man” but a case of “a women behind every successful activity” now.

Thus, this paper throws light on a woman in workplace stress and to analyze various factors of job satisfaction viz. pay, perks promotional benefits, status, safety, etc and the status of her in balancing work and family in the present scenario.

## **INTRODUCTION:**

In today’s world of business, diversity is the major element necessary for competitive edge of any organization. Human resources is perhaps the most valuable and useful resources. All other opportunities, resources etc are available to the organizations seems to be of no value if there is no way of handling them properly. Also an intellectual, competitive pool of employees is a non-duplicate asset this is of the most value for an organization. The trends are showing a positive even better advancement of women in the field of education as well as in the practical field, as compared to men. Therefore the rationale of the study is to analyze the role and importance of women. Women can prove to be valuable resource and an asset for the organization with the abilities like handling multiple tasks simultaneously, which might not be that easy for male employees.

The behavioral aspects also have importance. Women are considered to have the “other-oriented” personality dimension that helps in socializing and personality interacting with people. Also their communication style is empathetic that improves the work relationship by enhancing the other’s self worth. Care, concern and curiosity are the natural attributes of women which are further reinforced by additional characteristics like empathy, flexibility and persistence. Women are no longer shying away from the typical so-called male bastions, be it education or career. The entrepreneurial skills of women are far superior to those of men, for she is not the one to give up easily.

Sadly, the role and contribution of women in the economic value chain of the country are rarely recognized or acknowledged, the reasons could be historic, as traditionally a women was expected to take care of the house and the family and any activity outside was frowned upon. It is gratifying to note the present-day women has broken all these medieval shackles and ventured out to stand shoulder to shoulder with man, an all this while not compromising on her traditional role. Something remarkable and to be taken note of by everyman. It’s time men realized that women could do everything that they could and probably do even better. Today, the working women are not only breaking the so-called “glass ceiling’ but are shattering it to smithereens.

A number of corporate Indian women have achieved leading positions and have done us proud both at home and across seas. But despite all this, women employees and workers continue to be haunted by problems like discrimination, sexual harassment, indifference and insensitivity. Notwithstanding all this, we salute that 'women employees' who carries the body in her womb and the project deadline in her mind with equal ease and aplomb. It is no longer "a women behind every successful man" but a case of "a women behind every successful activity" now.

### **HISTORY OF WOMEN:**

Throughout most history, women were viewed as having two responsibilities their whole life. Even today, being a good wife and mother are what society expects of women. Although the first women's rights convention in 1848 marked the start of changes in women's roles, it wasn't 1920 when the 19<sup>th</sup> amendment was passed that women were allowed to vote in the U.S.

Once women began to vote, other changes took place such as women working more frequently outside the home. During World War II, there was a tremendous rise of women working especially in blue-collar positions. The war gave women the opportunity to work while the men were fighting the war. Although women were working the same jobs as men, they were not getting paid the same wages.

During that time, same women had more than one job to maintain their families while families which maintaining their household duties. When the war was over, women were forced to leave their jobs because the men had come back to reclaim their old jobs.

In the beginning of the 20<sup>th</sup> century women were regarded as the guardians of mortality; they were seen as made finer than men and were expected to act as such their role was not defined as workers or money makers. Women were expected to hold on to their innocence until the right man came along so that they can start a family and inculcate that mortality they were in charge of preserving. Yet at the turn of the century, civil war changed and educated women more and more.

### **WOMEN IN THE WORKPLACE TODAY**

Though women have come a long way with their rights, they are still discriminated against. In 2005, women in the U.S were paid 77 cents for every dollar men received for comparable work, according to the **America's movement union website**. Most high-end or executive level positions are held by men.

Among the many remarkable upheavals of the 20<sup>th</sup> century, the huge increase in women's employment stands out. The shift of women to paid labours has led to widespread transformation of the traditional rules and practices of daily life not only at workplaces, but in families. As work and family changed, there were reverberations throughout society. The roles women play unrecognizable to our forebears of 100 years ago. Still, for all the change, the revolution remains incomplete. The arithmetic is simple, if women's jobs require 30, 40 or more hours a week, they cannot spend those same hours caring for their families. Society has not focused on the need to provide alternative types of care, particularly for children and the elderly, during the time that caregivers are employed. To finish the revolutions and new arrangements are in order.

In 1990, 20% of workforce women were married. Only in minority, immigrant, or destitute families were married women likely to be engaged in paid work. Employed mothers were even rarer. Over the course of the next 100 years, though, a variety of forces drew additional females, including mothers of very young children into the labour force.

Throughout the last century, employers particularly sought women for several rapidly growing occupations including clerical duties, teaching, and nursing. These were jobs that men usually declined, in part because they relatively low paying and offered little change for advancement, and in part because they were stigmatized as "women's work". At the same time, more and more women completed the high school or college degrees necessary to hold these jobs. In the last 25 years, fields have opened up that virtually had been closed to females and vast numbers were educated in law, medicine, business and engineering women's earnings increased commensurate with their education, making employment even more attractive.

## **WOMEN IN MANAGEMENT: CHAMPIONS OF CHANGE**

In 1876, one Bengali writer described in her autobiography the position of women in Bengal as "birds in a cage". This was a graphic description of women's position in the society and life as a whole. It tried to depict how an array of male dominated institutions ranging from the family to the segmented labour market had served as the invisible bars or this imaginary cage. The complex dimensions of the sub-ordination of women by men in Bangladesh as well as South Africa have been well documented in numerous studies done in the region. However, the position of women has considerably changed from the situation.

In reality, women manager's performances and effectiveness are mostly reduced by environmental constraints which have been imposed upon them artificially. The constraints they are facing come in two forms.

**External oppression:** laws, policies and structures that keep women from power

**Internal oppression:** sexist condition that causes women to hold themselves back.

## **STRATEGIES FOR HOME AND WORK BALANCE**

The rise of women in the workforce has shown significant improvements for women, families and even poverty levels and yet most feel there is still long way to go. Recent report shows that women today have two main issues in the work place.

- Learning to find the balance between work life and family life.
- Learning to find the most effective way to communicate with others, mostly males at work.

The first issue the balancing act is often source of real struggle for the women in the work force. In learning to find the balance in the work life and family life, one must consider such factors as having children, then the inevitable child care, the ever increasing needs of elder care, family life in general, running a house hold, the economics of it all, and the fit between personal as well as professional needs. The balancing act can often cause women to have conflicted feelings, wishing to be a valuable contributor to the work force but also having the reality of caring for one's family: This conflict within self is often accompanied by feeling of guilt –and questions like whether they are getting it all right and is it all worth it. Women all over the globe are dealing with the same balance issues and trying to understand how to have it all both the successful family and home successful career.

Around the globe women are joining the workforce in record numbers. This shift has not been easy. Women earn a fraction of what their male counterpart earn, often work longer hours, continue to have the same home responsibilities as before they went to work, and face the challenges of learn to balance both their home and work lived and tries to be successful in both. As evidenced from the discussions with the women featured, the benefits outweigh the hurdles to joining the workforce. Women feel empowered to offer their gifts, skills and creativity to the work force and enjoy the stimulating work and relationships of colleagues. In order to continue to ease the process of women entering the workforce, women must learn from mistakes of other women. And organizations and government must treat women as equal to man and give them the respect

and responsibility to grow in leadership position and entrepreneurial endeavors. This is a win-win scenario of all.

## **CAREER RESTRAINS**

The life of career women is never easy. They have to constantly make choices and compromises in their family life. This is a situation where women have to set their numerous issues that restrain women executives from attaining career goal; they can be at individual level restraints, organizational working restraints and societal level restraints.

### **a) INDIVIDUAL LEVEL RESTRAINTS**

#### **Lack of Education:**

The changing global scenario requires constant up gradation in knowledge and learning to meet the challenges of the job profiles. When women folks get struck between works and family this up gradation takes a back seat. This creates her shortfall in the job requirement and individual attitudes, reducing the probability of their selection at the time appraisal and new job assignment.

#### **Lack of Self-confidence:**

It has been found in a few instances that women managers lack self confidence, a prominent in taking major organizational decisions. This can be due to lack of practical knowledge, experience, professional competencies or work pressures. Thus, indirectly restraining their promotion at managerial level.

#### **Double work day feeling:**

Mostly man has liberty to overlook the family responsibilities and can claim to relax at home after having tedious day at work place. On the other hand any women having similar work pressures and long working hours daily, has to continue shoulder the burden of house work and child care after back home. This uneven distribution of house work and family responsibility leaves women executives exhausted and with the feeling of having double work day or doing double work in a day.

**Higher priority to family:**

Women even at the heights of their professional career try to adhere to their family commitment and perform unpaid house work. Family always remains their top most priority, thereby making the work and family conflict more severe for them than their husbands.

**Job Mobility:**

Often women find it difficult to accept job offers or project with higher mobility, either transferable or requiring travel more due to their house and family commitment. They prefer to sustain at lower positions in the organizations or else opt for comparatively low paying alternatives careers that keep them immobile.

**b) ORGANISATIONAL WORKING RESTRAINTS****Standard Working Hours:**

For years the normal work hours in a day are considered from 9 A.M to 5 P.M, where the upper limit is stretchable. All the employees have to maintain this code of conduct irrespective of the workload which can even be lower sometimes. A common problem, which especially the women executives face here, is of child and family care, especially at the times where child is sick, having exams, or there is some ailing elder in the family.

**Company Policies and Norms:**

Sometimes it is the company norms and policies such as absence of adequate provisions for parental and child care leaves, flexible work hours, etc ., that forces women to leave jobs in the mind of their prospering career.

**Corporate Culture:**

The prevailing corporate culture, however, contemporary it claims to be, still views male executives as most prominent contenders for managerial candidature. Women are seldom seen sometimes are not even considered for the posts. Even when they make up to such positions, the difficulty arises in gaining acceptance.

**Unsympathetic Attitudes of Boss & Colleagues:**

It is a known fact that a woman has to give more priority to her family commitments than her spouse; their responsibility is often misinterpreted as her lack of dedication and sincerity in the eyes of subordinates and peers. Thus, she fails to receive any support and cooperation from them. In some cases, a woman's career development is influenced more by other people's opinion of her abilities than by her actual abilities.

**Maternity Issues:**

Still, often so many years ago, globalization, maternity is considered as a constraint in the career enhancement of women executives. Organization's restrains them from employing pregnant women, deny them opportunity for training and promotion, offer them less skilled jobs, change the status from full-time to part-time employees or retrenched them.

**c) SOCIETAL- LEVEL RESTRAINTS****Societal Perception:**

More than any other factor, it is the society and its perceptions that are responsible for confining women to the periphery of their households. Irrespective of their talents, qualifications and the position they had in the organization, their professional career and contribution to the family income, in comparison to their spouses, are considered secondary and irrelevant. Women are always considered to be the one's better off at home.

**Lack of Career Counseling and Motivation:**

Women, when tied work and family, find it difficult to manage both simultaneously and take irrational decision of quitting job. The underlying situation emphasizes on the need to career counsel, motivate, guide and show them the suitable path and with this they can maintain a successful balance between both. This, however, is often found missing in the society.

**CONCLUSION**

Women in India are beginning to follow the direction that the women of the Western world took more than eighty years ago; demanding treatment as human equals. However, it has become more and more evident as the revolution ages that Indian women may have to adapt the Western feminist method to their very traditional and religious culture. India has

different complications that put the development of women in a completely altered context than their Western counterparts.

The additional complexities that the women of India must also challenge are the caste system, the heavy religious customs, older and more traditional roles of the sexes, as well as the even stronger power that men hold in India. The status was at one time accepted, but with the Western women's revolution and perception, the role is slowly succeeding in its development through both independent groups of women and national and worldwide organizations based on the goal of gaining equality. They have all accomplished much, but have yet to overthrow the male dominated society.

It may be concluded regarding the study carried, it is determined that the women working in an organization are satisfied with almost many of the key factors which has been analyzed in the study. The equal importance when given to women employees with that of male employees would increase their performance and efficiency.

# IMPACT OF COVID-19 ON THE LIFE INSURANCE SECTOR

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## **1. ABSTRACT**

The COVID-19 pandemic has created unforeseen challenges for businesses and people across the globe. These challenging times have made us understand how uncertain and unexpected our future are. Due to the pandemic, many now consider insurance to be a necessary safeguard against unforeseen circumstances.

The epidemic served as an unwelcome wake-up call for many people about the importance of being ready for difficult times. During the lockdown, the life insurance sector felt the pandemic's heat, which at first hurt its performance. However, the pandemic has also highlighted the value of life and health insurance.

We all know that the ratio of death is very high due to Corona virus. Buying life insurance is one of the most important financial decisions right now.

A Life insurance policy provides risk coverage, cover for health expense, stimulates saving, guaranteed income, loan facility and tax benefits. A good financial planning must not miss out on the life insurance as no matter how good is the financial plan, without an adequate life insurance, it would be worthless after the death of the owner

This research mainly focuses on the impact of Covid 19 on life insurance sector covering various factors like family income, challenges and trends, and customer satisfaction in regard to digitalization process.

## **2. INTRODUCTION (LIFE INSURANCE)**

An insurance policy holder and an insurer or assurer enter into a contract for life insurance under which the insurer agrees to pay a predetermined beneficiary a certain amount (the

benefit) in exchange for a premium in the event that the insured person passes away (often the policy holder). Other occurrences, such critical illness or terminal disease, may also result in payment, depending on the terms of the contract. A premium is normally paid by the policyholder, either on a regular basis or all at once. The benefits can also cover other costs, like funeral costs.

Life insurance plans are contracts with legal standing, and their provisions outline the scope of the insured events. To limit the insurer's obligation, certain exclusions are frequently spelled out in the contract. Typical examples include claims involving suicide, fraud, war, riot, and civil unrest. When an event is not clearly defined, problems may occur, for as when the insured deliberately accepted a risk by submitting to an experimental treatment or drug that led to harm or death.

### 3. REVIEW OF LITERATURE

- 1) The article published by **Edelweiss Tokyo**, titled "4 ways the pandemic changed life insurance sector in India", states some of the major ways in which covid affected life insurance sector. Now people value the protection and fallback offered by life insurance products, as a result of the pandemic's financial impact. People are gravitating toward pure protection plans like term life insurance rather than insurance-based plans like ULIPs, which can be related to the psychological impact of the COVID-19 pandemic. Some of the key expectations from a post-pandemic insurance market are payment flexibility, innovative products, online forms of transactions, contactless purchase and renewal, and extra benefits of COVID-19 insurance in existing plans. Due to rise in demand for contact less transactions, insurance companies now offer digitally enabled Omni channel systems and better online functionalities.
- 2) **Dr Babita Yadav and Dr Pushpa Suryavanshi** in their paper titled 'Journal of interdisciplinary Cycle Research' talks about the covid 19 pandemic impact on almost all industries and sectors. This paper studies the effect of pandemic and also its effects on the business of Indian Life insurance sector. It has also covered various dimensions like No. of policies issued, sum assured etc. This paper also makes an attempt to examine the performance of the company for financial year 2019 and 2020.

- 3) According to the report published by **Deloitte**, titled "impact of covid 19 on insurance sector", in August 2020, the after effects of the pandemic include reduction in spending capacity of the consumer which ultimately resulted in payment breaks in an effort to stem a potential large level of lapses. The market volatility and general uncertainty on consumer confidence has left life assurers with a significantly lower new business volume. There has also been a significant drop in market values and interest rates. The impact on life assurers is rising unemployment.
- 4) **In a report by Pranav Jain, Sandeep Kumar, Prasad Lad, Sanchit Suneja, and Preet Varun** published in McKinsey and company, titled "How Indian insurance companies can respond to coronavirus", the impact of the crisis will be most visible in the value of unit-linked insurance plan (ULIP) portfolio assets in life insurance sector. Low interest rates pose a risk to profitability of existing non participating portfolios in life insurance. The response to this crisis can be through five horizons, resolve, resilience, return, reimagination, and reform.
- 5) **William Wise** in his survey research paper 'A survey of life insurance efficiency paper: Methods, pros & cons, trends' tries to provide an overview of life insurance efficiency measurements and also mention some of its advantages and disadvantages. He also talks about the common methods of determining efficiency.
- 6) **In the journal titled "A Review of Literature on the Life Insurance Business" by Tasnim Uddin Chowdhury**, it is stated that since the onset of the COVID-19 pandemic insurance industry has lost USD 760 billion globally in market capitalization. The demand for life insurance has fallen due to a decline in the living standards of a part of people in the society, an increase in the payment of premiums due to a lower rate of interest and a problematic access to medical tests. Market experts concur that the long-term effect of the pandemic will accelerate the digitalization process in the insurance industry. Many business processes in insurance companies will be managed by the technologies like artificial intelligence (AI), machine learning (ML), Internet of Things (IoT), natural language processing (NLP) and computer vision etc. which will lead to automation, acceleration and increased efficiency of the companies.

- 7) The study 'Digital Transformation of Marketing Strategies during a Pandemic: Evidence from an Emerging Economy during Covid - 19 ' by **Ganesh Dash and Debarun Chakraborty** permeates through two stances viz; Digital marketing and its role in accommodating Indian insurer and assure of tormenting times. Since it was an undetermined onset of the harsh shutdowns. The insurance companies embarked on using the best Practices of the profession by carefully blending it with digital practices which would thus encompass wider population of insured through digital services. This fortunately went well for both the respective sides as one who sought insurance and the other who wanted to cater, were seamlessly conjoined through effective client and consumer digital mode.
- 8) **Ms. Jeevitha.E, Dr. Michael David Prem kumar** in their paper titled “An analysis on various approaches used for determining the life insurance cover for policy holders in life insurance industry in India”, have explained about the various approaches used for determining the life insurance cover for a potential life insurance policy holder. The paper is based on descriptive research, For calculating the amount of life cover for an individual by this researcher one can identify the most appropriate approach that can be used by life insurance industry. Further the author has interpreted that the most suitable approach is the realistic approach that can be taken into consideration for calculating the life cover of an individual. However, Life insurance is a risk covering tool that can be used to cover the financial risk, every insurance provider and policy holder should remember this and choose the apt policy with appropriate amount of life cover suitable for that particular individual.
- 9) **In a paper by Dr. N. Senthil kumar and K. Selvamani** titled 'Life Insurance In India-An Overview' states that life insurance industry is significantly contributing to the Nation's economic growth. It also talks about private life insurer introducing numerous new policies to grab the interest of policyholders.
- 10) **An article written by Preeti Kulkarni** (January 25. 2022) titled how COVID-19 has affected Indian insurance sector and policy holders. The article focuses on the rise in term insurance premium rates across various age bands and also discusses the reasons Behind

the hike in the premium rates Reasons being high mortality or death rates across the world and in India due to Covid 19. The article also states that compared to the other global market the term rates of premiums in India have been on the lower side over the last 10 years and they still continue to be cheaper compare to global markets.

#### **4. Objective of the study**

- 1) To understand and examine the changing trends and challenges in the insurance sector
- 2) To study the demand for life insurance in regard to family income and the digitalization process

##### **4.1 Hypothesis**

**H0:** There is no significant relationship among digitalization process with respect to demand for life insurance

**H1:** There is significant relationship among digitalization process with respect to demand for life insurance

#### **5. Research Methodology**

##### **5.1 Research gap**

The goal of the study is to investigate the impact of covid on the Life insurance sector. It looks at the different changes the pandemic brought to the sector and also how the consumer's perception changed after the pandemic.

##### **5.2 Significance of the study**

- The study aims at understanding examining the changing trends in the insurance sector after the pandemic covid19
- It also strives to light the significance of the digitalization process

### 5.3 Source of Data

- The data being used for this research is primary data is collected through a sample
- The data has also been collected through websites, journals, articles, etc.

### 5.4 Data Collection Method

It includes both primary and secondary data.

### 5.5 Sample size

The sample size for this research is 50.

### 5.6 Sampling Technique

The convenient random sampling technique is being adopted in order to conduct the survey.

SPSS software was used to analyze the data collected and under SPSS ANOVA test was used to interpret the data.

## 6.MAJOR FINDINGS AND ANALYSIS

- The above research helped us to find out that
- the major objective of people/respondents behind taking life insurance was to cover risk while some took it for saving and investment purpose i.e approx 28%
- Under this research we also saw that respondents with family annual income upto 2lakhs is majority in number who took or have life insurance i.e 46% approximately followed by the category of 2lakhs to 4lakhs
- We also saw that after the pandemic covid19 breakout about 57.1% thought/bought life insurance whereas there were still about 40% of the respondents who still struggled in regard to this.
- Under this research work more than 30% of the total respondents believed or were satisfied with the change of payment to digital mode while some consider it to be neutral
- Under this research we also saw that respondents nearly upto 50% were contacted by insurance providers through emails during covid period whereas some used websites or calls to reach out.

## 7. CONCLUSION

According to research we find that there is significant relationship among digitalization process with respect to demand for life insurance.

It can be seen that majority of the respondents are satisfied by the digitalization process and the changing trends. It can also be seen that annual income also play a role in deciding the demand for life insurance.

All the information collected through primary and secondary data were useful. The primary data helped in understanding the psyche of the customers and what a human looks for in an insurance and such discoveries were immensely useful in drawing conclusions about this particular research and study.

Overall we can say that this research has been fruitful and achieved its objectives that was set out and also gave us new insights into consumer's mind while taking an insurance.

This research paper has been a great learning experience and also quite informative all in all.

## AN OVERVIEW OF SOCIAL PROGRESS THROUGH PMAY-G SCHEME IN SONITPUR DISTRICT OF ASSAM

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### ABSTRACT

Human beings are social in nature and they always need a good society to live their life in a standard way. Equality and social freedom are the main ingredients to make a perfect society. Pradhan Mantri Awas Yojana – Gramin (PMAY – G) is a central government scheme whose main objective is to provide an affordable shelter to the needy and poor people of rural areas. The main aim of the present paper is to figure out how social progress is achieved through the Pradhan Mantri Awas Yojana – Gramin (PMAY-G) scheme in Sonitpur district of Assam. The paper is fully based on secondary sources of data and descriptive in nature. The main finding of the study is PMAY-G scheme is quite helpful for the rural people of Sonitpur district for their social progress.

**KEY WORDS** – Social Progress, PMAY-G, Affordable house, Sonitpur district, Rural people.

### INTRODUCTION

A progressive society is dream for every developed and developing country. Developing countries economic growth and progress is possible when they have a progressive society. India is also a developing country and the same thing is also applicable for it. A progressive society simply implies that where all the people have freedom and right and they are not neglected based on their gender and social status.

The state Assam is well known for its scenic beauty and majority of the part belongs to rural areas and most of the people lives in rural areas and villages. As per the report of 2011 census, 90.96 percent population of Sonitpur district belongs to the rural areas and rest 9.04 percent people lives in urban area. So, it is obvious that social progress of Sonitpur district is possible when the rural development is happened. With these motive and social progress, the Central government of India launched their most ambitious housing scheme Pradhan Mantri Awaas Yojana – Gramin (PMAY-G) in 1<sup>st</sup> April, 2016. The main objective of this scheme is to provide an affordable house with addition to some basic amenities to the rural poor and needy people of rural areas who are not being able to afford it. The main tag line of this scheme is “Housing for All” by 2022.

### Meaning and definitions of Social Progress

The word progress is defined as a way or direction towards the desired goal or result. Social progress is the expansion of social life in terms of the qualities that human value or can rationally value. In other words, social progress means progress towards the direction and way that changes the human life and as well as the society.

The following are some definitions about the social progress –

According to **Hobhouse**, “Social progress refers to the expansion of social life in terms of those qualities to which humans can rationally assign values.

As per H.T. Mazumdar, Social progress is an undertaking based on the following supervisory principles – (a) respect for each human personality. (b) ever increasing freedom for spiritual inquiry and truth-seeking. (c) freedom for aesthetic enjoyment of natural and human works. (d) promotion of life, liberty, and the pursuit of happiness with justice and equity for all.

### REVIEW OF LITERATURE

The various researchers have done various work on rural development scheme and PMAY-G scheme. Some of the works are done by the previous researchers on this subject are highlighted below -

**Dhanabhakym and Shobanageetha** in their paper entitled “Rural Development through Pradhan Mantri Awaas Yojana (PMAY) in Coimbatore District” (2018), try to examine the socio-economic condition, awareness, satisfaction, and problems faced by the PMAY beneficiaries in Coimbatore district. The study shows that female beneficiaries are more satisfied as compared to male beneficiaries. The research paper shows that housing is an important tool or mechanism for the economic growth and it acts as a major contributor for the employment and income generation.

**Sawant and Fulwari** in their research paper entitled “Progress In Rural Housing In India In The Post Reforms Period” (2019), observes that after implementation of the PMAY-G scheme, large number of construction of houses is completed, which implies this scheme shows a remarkable progress. The physical progress is possible just because of the better monitoring system and using of DBT system for transfer of funds to the beneficiary’s account.

**Singh** in this study entitled “Rural Housing and Pradhan Mantri Awaas Yojana – Gramin (PMAY-G): An Assessment” (2021), observes that PMAY-G scheme is benefited for the homeless and below poverty line people for the rural development. The study suggests that to solve the shortage of housing problem in India, it is very important to implement this scheme from the grass root level. This scheme

also useful for the people in rural India for solving their housing problems and improve their socio-economic status.

**Mallanagoudra** in her research paper entitled “An Evaluation of Pradhan Mantri Awaas Yojana (Gramin) in Karnataka” (2022), has tried to review the status and performance of housing facility in Karnataka and highlight various schemes introduced and implemented by the respective government to solve the shortage of housing problems in rural areas. The researcher mentioned that housing plays an important role for providing employment and social stability of every human being’s life.

### **RESEARCH GAP**

Now-a-days social progress is very much important for every developing society. Various researchers have carried out various studies about the Pradhan Mantri Awaas Yojana – Gramin (PMAY-G) scheme. Various aspects like rural development, problems and prospects, awareness, perception, satisfaction level of the beneficiaries has been showed by the various researchers in their respective studies but no formal study has been found by the researcher about the social progress of this scheme. With this motive the researcher proposed this study to highlight the social progress of the PMAY-G scheme in Sonitpur district of Assam.

### **RESEARCH QUESTION**

Keeping on view of the research gap of the present study, the following research questions have been emerged and they are as follows –

- (i) What is the present status of the Pradhan Mantri Awas Yojana – Gramin (PMAY-G) scheme (gender wise and social status wise) in Sonitpur district of Assam?
- (ii) Is Pradhan Mantri Awas Yojana – Gramin (PMAY-G) scheme is really a helpful scheme for social progress?

### **OBJECTIVE OF THE STUDY**

The objective of the present study is to figure out the social progress of the Pradhan Mantri Awas Yojana – Gramin (PMAY-G) scheme in Sonitpur district of Assam.

### **RESEARCH METHODOLOGY**

The present study is completely based on secondary data and descriptive in nature. The secondary data were collected from the various research paper, articles, books, and official website of the Ministry of Rural Development (Rural.nic.in).

## ANALYSIS AND DISCUSSION

The government of India's most flagship rural housing scheme PMAY-G scheme is mainly introduced for the development of the rural people. Under this scheme, the needy and poor people of rural areas get an opportunity to get an affordable shelter in addition with some basic amenities to live their life in a standard way in the society.

The term social progress is a relative term and the simple meaning of this word is trying to change the society towards the ideal one. The ideal one is usually making a better one from the previous one. So, social progress implies towards a better society where all the people have equal right and get an equal chance and they are not neglected and judged on their caste, gender, social status etc.

The social progress and PMAY-G scheme, both are interlinked with each other. PMAY-G scheme helps in social progress and societal development of rural India. The PMAY-G scheme does not deprive the beneficiaries of getting the benefits based on their social status, caste, and gender. Under this scheme, all the needy and poor people from rural India get a fair chance and equal opportunity to enroll themselves under this scheme and get the benefit.

For the evidence of the social progress through PMAY-G scheme, here are some tables and figures which shows the category wise and gender wise construction completed of houses under PMAY-G scheme in all the Community Developmental Blocks in Sonitpur district.

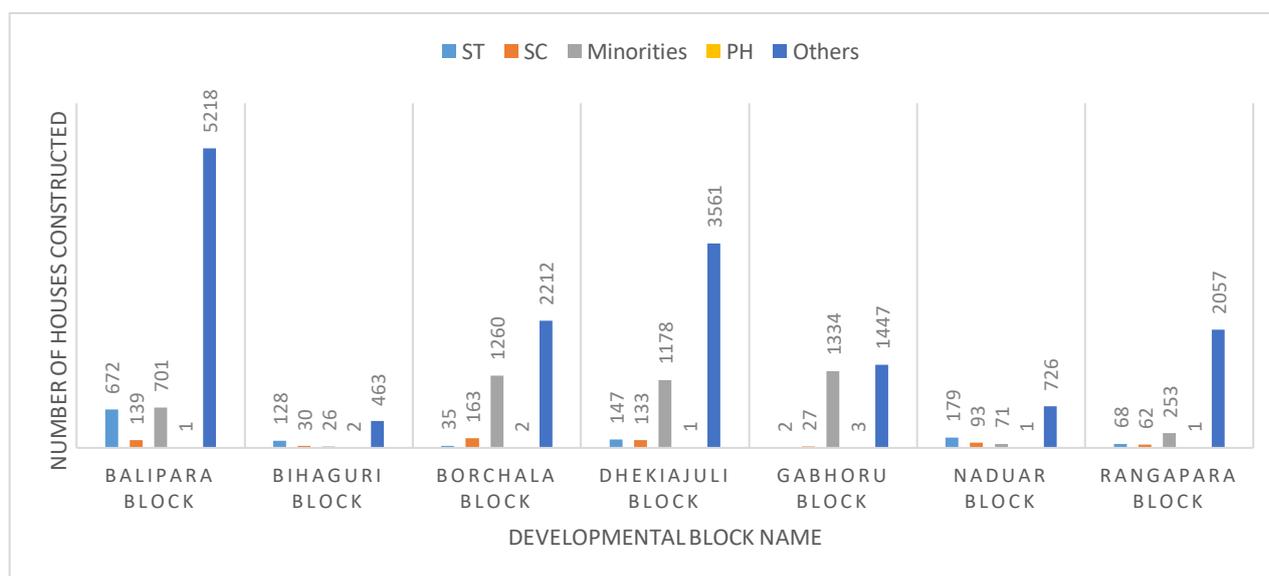
**Table No. – 1: Category-wise houses completed under PMAY-G scheme in Sonitpur district  
As On: 21/01/2023**

Sl. No.	Name of the Block	Target fixed by block	Sanctioned made	Completed	Breakup of completion				
					ST	SC	Minorities	PH	Others
1.	BALIPARA	12314	11709 (95.09)	6029 (51.49)	672	139	701	1	5218
2.	BIHAGURI	3107	2855 (91.89)	621 (21.75)	128	30	26	2	463
3.	BORCHALA	9061	7670 (84.65)	2410 (31.42)	35	163	1260	2	2212
4.	DHEKIAJULI	12289	11574 (94.18)	3841 (33.19)	147	133	1178	1	3561
5.	GABHORU	5671	5077 (89.53)	1476 (29.07)	2	27	1334	3	1447

6.	<b>NADUAR</b>	3547	3231 (91.09)	998 (30.89)	179	93	71	1	726
7.	<b>RANGAPARA</b>	2887	2868 (99.34)	2187 (76.26)	68	62	253	1	2057
<b>TOTAL</b>		<b>48876</b>	<b>44984</b> <b>(92.04)</b>	<b>17562</b> <b>(39.04)</b>	<b>1231</b>	<b>647</b>	<b>4823</b>	<b>11</b>	<b>15684</b>

Source – Compiled by researcher (Rural.nic.in)

**Figure – 1: Category-wise construction completed houses under PMAY-G scheme in Sonitpur District of Assam**



Sources – Researchers work.

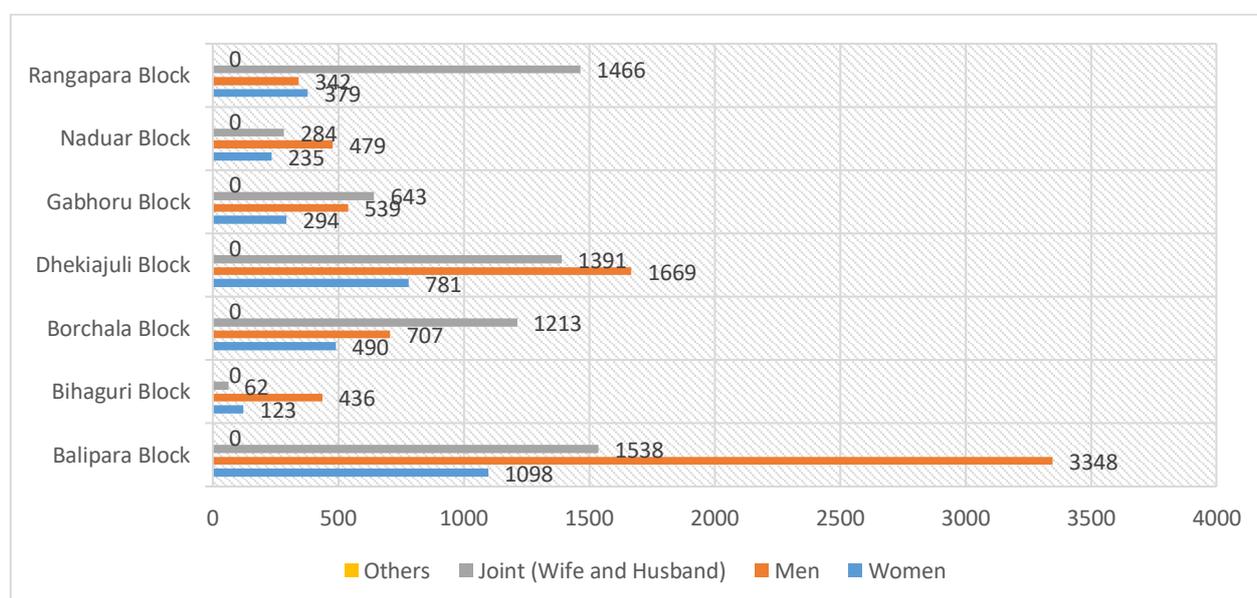
**Table No. – 2: Gender-wise houses completed under PMAY-G scheme in Sonitpur district As On: 21/01/2023**

Sl. No.	Name of the Block	Target fixed by Blocks	Sanctioned made	Completed	Breakup of completion			
					Women	Men	Joint (Wife and Husband)	Others
1.	<b>BALIPARA</b>	12314	11709 (95.09)	6029 (51.49)	1098	3348	1583	0
2.	<b>BIHAGURI</b>	3107	2855 (91.89)	621 (21.75)	123	436	62	0
3.	<b>BORCHALA</b>	9061	7670 (84.65)	2410 (31.42)	490	707	1213	0
4.	<b>DHEKIAJULI</b>	12289	11574	3841	781	1669	1391	0

			(94.18)	(33.19)				
5.	<b>GABHORU</b>	5671	5077 (89.53)	1476 (29.07)	294	539	643	0
6.	<b>NADUAR</b>	3547	3231 (91.09)	998 (30.89)	235	479	284	0
7.	<b>RANGAPARA</b>	2887	2868 (99.34)	2187 (76.26)	379	342	1466	0
<b>TOTAL</b>		<b>48876</b>	<b>44984</b> <b>(92.04)</b>	<b>17562</b> <b>(39.04)</b>	<b>3400</b>	<b>7520</b>	<b>6642</b>	<b>0</b>

Source – Compiled by researcher (Rural.nic.in)

**Figure – 2: Gender-wise construction completed houses under PMAY-G scheme in Sonitpur District of Assam**



Sources – Researchers work.

**Interpretation:**

Table number 1 shows the category-wise houses completed under Pradhan Mantri Awas Yojana – Gramin (PMAY-G) scheme in Sonitpur district and table number 2 shows the gender-wise houses completed under Pradhan Mantri Awas Yojana – Gramin (PMAY-G) scheme in Sonitpur district as on 21-01-2023.

The total number of targets fixed by the Sonitpur district for construction of houses under Pradhan Mantri Awas Yojana – Gramin (PMAY-G) scheme is 48,876 units and out of which only 44,984 units

sanction has made, which is almost 92 percent. Again, out of all the sanctioned made, only 17,562 number of houses construction has been completed which is about 39 percent.

The Sonitpur district comprises of 7 Community Developmental Block and Rangapara Developmental Block and Balipara Developmental Block shows the highest number of constructions completed houses i.e., 76.26 percent and 51.49 percent respectively and Bihaguri Developmental Block shows the lowest number of construction of houses i.e., only 21.75 percent under Pradhan Mantri Awas Yojana – Gramin (PMAY-G) scheme.

## **FINDINGS OF THE STUDY**

From the above analysis and discussion, the major findings of the present study are as follows –

- i. The total number of construction of houses targets fixed by the Sonitpur district under PMAY-G scheme is 48,876 units and out of which only 92.04 percent i.e., 44,984 number of units has been sanctioned.
- ii. In Sonitpur district, only 17,562 number of units of construction of houses has been completed under PMAY-G scheme.
- iii. In Rangapara and Balipara Block, the highest number of construction of houses has been completed i.e., 2,187 out of 2,868 units and 6,029 out of 11,709 units respectively under PMAY-G scheme.
- iv. In Bihaguri Block, the lowest number of construction of houses work has been done i.e., 621 out of 2,855 units under PMAY-G scheme.
- v. In Sonitpur district, category wise construction completed number of houses for SC cast is 1,231 units; ST cast is 647 units; Minorities is 4,823 units; PH is 11 units; and others is 15,684 units under PMAY-G scheme.
- vi. In Sonitpur district, gender wise construction completed number of houses for women is 3,400 units; men is 7,520 units; Joint (Wife and Husband) is 6,642 units and others is 0 units under PMAY-G scheme.

## **CONCLUSION**

A progressive society is the back bone of every country. Every country needs a progressive society. Social progress is very much important for make a progressive society. The rural housing scheme PMAY-G is a scheme which provide adequate shelter to the rural needy and poor people with some

basic amenities who cannot their own shelter. This scheme is available for all the rural people and it does not deprive any one based on their caste, gender, religion, and social status.

The PMAY-G scheme very much helpful in social progress. This scheme is implemented in all the blocks of Sonitpur district and different categories people get the benefits of this scheme. Moreover, PMAY-G scheme is implemented in a proper way in all the blocks of Sonitpur district but construction completion of houses growth rate is not satisfactory as compared to houses sanctioned under PMAY-G scheme.

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## A STUDY ON POSITIVE AND NEGATIVE EFFECTS OF SOCIAL MEDIA ON EDUCATION

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### ABSTRACT

Nowadays Social Media possess a vital role in all the fields which includes employment, business, education, tourism, healthcare etc. The impact of social media reflects both advantages and disadvantages in each and every field. In this paper we are going to discuss about the positive and negative effects of social media on education. Education is one of the important ladder for each and every student, because education not only educates them, it also shows the right path for their future development. Yes we shall discuss about the various effects of social media on education.

**KEYWORDS:** Social Media, Education, Effects, Students.

### INTRODUCTION

Social media helps to exchange ideas and information through virtual communities like whatsapp, Instagram, face book, tiktok, you tube etc. Social media helps us to get information about various prospects through virtual communities. During the traditional period we were depending only upon newspapers and magazines. But the latest development in technology helps us to learn many new facts and implement it in our normal course of life.

### SOCIAL MEDIA AND EDUCATION

Education system has emerged with drastic changes due to the influence of social media. In the traditional period students used to go to library for reference purposes but nowadays the whole library is brought to us with the help of online facilities. When we are using a specific link we can get the whole information regarding the books or journals which we want to refer. Mainly it is useful for the students who does research or goes for higher education. We can segregate the usage of students into various categories such as students from kindergarten, middle school, higher secondary, UG, PG, Research, employment, business, healthcare, tourism etc. Yes once they get educated about the usage they can use it for may purposes according to their flexibility.

## **POSITIVE EFFECTS OF SOCIAL MEDIA**

Our life is full of hurdles, we should cross all the difficulties we face as that of a challenge. So we should take all the challenges with positivity. Now let us discuss about the positive effects of social media.

- Encourages online learning
- Inculcates creative knowledge
- Helps to develop academic performance.

### **ENCOURAGES ONLINE LEARNING**

Online learning helps students to broaden their mind in a specific subject or skill oriented activities. In spite of the knowledge they gain in their schools or colleges they need more guidance which they receive from the social media .If they are searching any information in Google they can get an elaborate explanation through clear videos or notes .This helps students to get updated. We can take the example of various online coaching providers like BYJUS, YOUTUBERS etc.

### **INCULCATES CREATIVE KNOWLEDGE**

Learners always search for many new information. Rather than the information they get through books and classroom activities, they need some knowledge gaining facilities. Those facilities are provided by way of social media. They can do research in their specific interest and gain more outcomes which helps them to expose their talent and enrich their knowledge with creative ideas and thoughts.

### **HELPS TO DEVELOP ACADEMIC PERFORMANCE**

Academically if any guidance is needed for a student means they can use the potentials which they get from social media .Even if they are poor in mathematics or English they can go through various online facilities and gain their knowledge most effectively. It also helps them to learn independently. They can grasp more information about the subject of information they are in need.

## **NEGATIVE EFFECTS OF SOCIALMEDIA**

It is well known to us that even when most of the things we were discussing about the social media were positive we also come through negative aspects such as

- Causes Distraction
- Reduces learning and research capability
- Affects Health

### **CAUSES DISTRACTION**

If students are using social media even for good purpose some videos or pictures will affect the mind of each and every student which leads to distraction. If distraction occurs the student will not be able to show concentration in studies as that of before and it will lead to so many problems such as getting low marks,, less concentration in day to day activities, some students also disobeys parents.

### **REDUCES LEARNING AND RESEARCH CAPABILITY**

When a student searches for any new information in the website, he crosses through various unwanted information which spoils their career a lot. For example if a student gets addicted to games while he was searching for new information, they will be showing most of their involvement in games rather than studies. It will spoil their knowledge and leads to poor performance in academics.

### **AFFECTS HEALTH**

There is so much of difference between online and offline learning habits. In offline students will be learning through blackboard, lectures, books and notes. But on the other side in online they will be engaged with mobiles and laptops, which spoils their eyesight, mental health etc.

### **CONCLUSION**

Thus we shall conclude that social media is one of the wonderful facility which helps us to get economic development, business development, social development, technological development, educational development etc. Even though it possess both the positive and negative effects in education, we should always concentrate on positivity and try to avoid the negativity by way of certain principles. If we are following certain policies like that of do's and don'ts in usage of social media surely our knowledge, health etc will be safeguarded.

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## SIGNIFICANCE OF GREEN HRM PRACTICES IN THE ORGANIZATION

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### **ABSTRACT:**

The current generation is very much worried about the consequences resulting out of the environmental changes. As human beings are affected by this, it is necessary to bring changes in the activities of the employees in the organization. This can be done mainly by giving training to the human resources of the organizations keeping in mind the Green concept, so that their behavior can be modified to address the environmental concern. This paper would indeed discuss about the good impact of Green HRM on the individual, society and business.

**KEYWORDS:** Environmental change, Green concept, Environmental concern, Green HRM.

### **INTRODUCTION:**

In order to rectify the negative impact of the operations in the organizations it is of utmost urgency for the organizations to embrace Green management strategies and policies, there by changing all HRM processes and practices into Green HRM. By following the Green practices there would be a good change in usage of energy and water. The organizations can also gain by waste reduction and cost reduction. As a result, the organizations gets an opportunity to be placed in favorable business position.

### **OBJECTIVES:**

A thorough understanding about the concept of Green HRM is a must for an organization and its employees, before they embrace Green practices. This paper attempts to

- Provide basic knowledge about Green HRM practices
- Induce the organizations to initiate HRM field to undertake environmental friendly practices, by highlighting the impacts of various Green practices.

## **GREEN HRM**

Green HRM refers to all the practices followed to attain environmental sustainability. It focusses on reconciling society's as well as organization's goals without affecting the performance of the organization.

## **CORPORATE SOCIAL RESPONSIBILITY**

Corporate Social Responsibility refers to the organization's responsibility to be accountable to the society in which it runs the organization as well as to itself and it's stakeholders. This is considered as a business model that would seek a better image for the organization among the public. The prestige and reputation of the organization in the community would there by increase its competitiveness and sustainability.

## **BENEFITS OF GREEN HRM IN THE ORGANIZATION:**

It is vital to inform, educate and train all the employees while embracing Green HRM practices. Only when the employees are satisfied with the main purpose of adopting Green HRM practices like cost control, gaining competitive advantage over the rivals in the market, creating environmental awareness, preservation of resources reduction in carbon footprint; the employees would feel proud in their work.

### **1.Preservation of Nature**

The Green HRM practices include Green recruitment, e-filing, energy efficient office space and paperless advertisement through social media. This would result in reduction of carbon emissions in office area. Online training would also result in use of less paper. In the long run this would preserve the nature.

### **2.Increases Employees Morale**

Adapting the practices like planting trees and plants with in the campus and growing pot plants in the working area can increase oxygen circulation. Providing smoking lounges for staffs would protect other employees from being infected. Promoting healthy habits like serving nuts and fruits during conference and meetings would raise the morale of the workers.

### **3. Gaining Competitive Advantage**

Corporate Social Responsibility is inevitable in current era. When it is performed in a well-designed manner, the organization can gain competitive advantage over the rivals.

#### 4. Cost Saving

Green practices include recording and disseminating the facts and information. This would highly reduce the use of paper. The employees being highly satisfied with the Green practices like Tele conference, virtual interviews, tele commuting would reduce absenteeism and turnover. All these would ultimately reduce the costs.

#### 5. Increase in Reputation

Any organization that follows Green HRM practices, would become more popular than other organizations. And there by its reputation would increase.

#### 6. Minimal Government Intervention

The chances of government interventions would be minimized if the organization embraces Green HRM practices. Moreover, the frequent visits of law enforcing officials would also be minimized.

#### 7. Converting Employees into a Good Corporate Citizen

When Green HRM practices are adopted by the employees the carbon footprint would be minimized. If they follow practices like car pooling, using E-vehicles, commuting through bicycles and public transport the employees would be converted into a good corporate citizens from environmental point of view.

#### 8. Attaining Growth Through Innovative Green Practices

Employees are motivated to innovate ideas that would enhance processes which would ultimately lead to growth of the organization. Employees can be rewarded to encourage more innovations. This would ultimately motivate other employees. There by healthy and competitive environment would prevail in the organization. Employees who are well versed in the Green practices would be able to give great suggestions and help in the business decisions. There by helping the organizations to solve environment related issues.

#### 9. Preferred Employer in The Market

Anyone seeking job would prefer those organizations following Green practices, as they learn new practices which would help them to grow. Following Green HRM practices would give competitive edge to both employer and employees.

## CHALLENGES IN ADOPTING GREEN HRM PRACTICES.

Even though the benefits of Green practices motivate the organizations to embrace Green HRM practices, there are few challenges that are unavoidable.

- It would take some time to alter the employee's behavior.
- Some employees may not be willing to adapt to new practices. It would be difficult to motivate all employees to participate.
- Initially, it would be a cumbersome process, when the entire organization develops the new culture.
- Recruiting Green employees would be difficult, so training the employees would be expensive.
- Evaluating the effectiveness in employee's behavior is difficult.

## CONCLUSION

The rising awareness about the environment among the people in the society is the driving force that pushes the organization to focus on the Green HRM practices. These practices would facilitate the organization not only to maximize the profit in the long run but also gaining perception and Goodwill. On the other hand cost effectiveness will result in cheaper products and also smarter utilization of natural resources will lead to sustainability.

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## TAX ON CONSTRUCTION AND REAL ESTATE SECTOR IN INDIA:A LITERATURE REVIEW WITH SPECIAL REFERENCE TO GST

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### **ABSTRACT**

GST, an endeavour to revamp the field of taxation to redress the frailty of indirect taxation sector. GST is a constant effort since 2006, with ceaseless progress and acquiescence it prevailed in India on July 2017. It promulgated as inclusive tax system to make India unified and seamless economy. It has implemented one nation one tax notion to remove all inter-state trade barriers. This gambit tax reform claim confiscation of cascading effect and ensure flawless, stringent and at ease regulation. Goods & Service Tax has introduced changes in the working pattern of all the sectors of Indian Economy, construction industry is no exception. Construction sector employs around **thirty million** people across the country contributing **two hundred billion worth of assets** every year. GST on construction sector register **18%** this **rate varies as for affordable housing it is 1%** and for input service and construction materials rate is 18%, however other segments have 5% tax rate. It also allows deduction of land value equivalent to one third of total amount charged by the developer for GST calculation. Homebuyers will soon be able to claim GST paid on construction services.

This review-paper considers vital research works done on Impact of GST on Construction sector under the umbrella of the statutory provisions of GST. This paper magnifies both the aspects, construction sector and GST provisions. Thus, the paper speaks about the factual role of GST Law, either maintaining transparency and development of this sector or marked to be a constraint. This paper also presents the bibliometric view of the topic

**Keywords** – GST, Construction Sector, Bibliometric Analysis

## **INTRODUCTION**

On July ,2017, India declares its financial policy shift by implementation of the GST. It is the result of continuous effort and seamless progression starting almost a decade ago. GST is meant to streamline the country's indirect tax system by comprising many central and state taxes ,the government has set ambitious goals for itself. The undeniable benefits of the tax reform ensure transparency and regularization, avoid cascading effect, multiple taxation, lower business costs. GST also ensure similar price of all goods and services all over the country. GST bring out various changes in every sector of the economy, construction sector is also not untouched. Construction sector encountered various impact but overall positive impact of GST registered in Indian economy. More refined compliances ensured

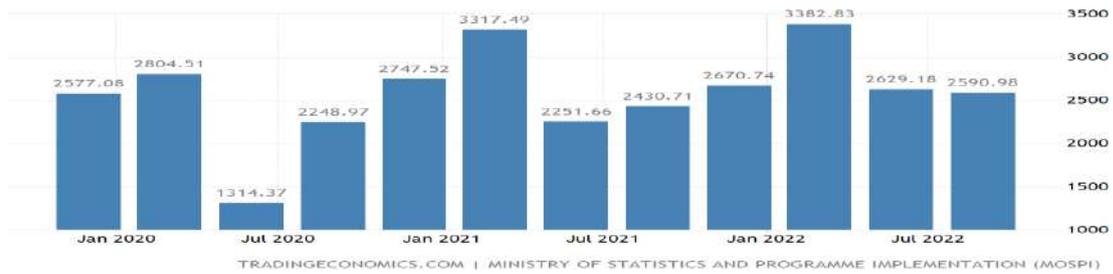
## **OBJECTIVE OF THE PAPER**

1-To systematically analyse the work done and literature/articles already published on Impact of Goods on Construction and Real Estate Sector in India. This paper focuses on the research gap and try to find out the scope of further research on this topic.

2- This paper focuses to know the impact of various changes due to GST on construction sector.

### **1.Construction Industry**

Construction sector is one of the prominent sectors in the Indian economy which provides large number of employment and registered significant contribution. Construction sector comprises mainly three segments; residential, commercial and infrastructure. This sector is expected to grow at an annual average of 6.6% between 2019 and 2028. The share of the urban population is expected to be 50% of the total population by 2050 Construction industry, is associated with various other industries like bricks cement, steel bricks etc. which impacted the employment generation in all other associated sector. This sector contributed quite well in GDP of the company



Source: Ministry of Commerce

## 2. GST on Construction Industry

GST rate on construction industry is 18% however for affordable. It is 1%, while for other segments it is 5%. As multiple taxation subsumed due to GST the cost of construction are significantly reduced, developers may get more margin which can open an attraction window for developers. However, there are some problems also encountered after the implementation

of GST due to over-emphasized compliance requirements which are still at initial stage posing may threats to the compliance teams of the taxpayer.

### 1. Literature Review:

Post-mortem activities done on the literatures available for Impact of Goods and Services on Construction and Real Estate Sector in India.

David.J. Paladino (2000) found out that smaller company must ascertain target market to formulate strategic vision so that company can provide high quality services to customer. This also emphasize that equity partner is one of the customers that also taken for consideration

**Linda.L. Johnson and Terry Keasler (1994)** They explicit deep analysis of dollar magnitude and associated importance of corporate real estate. Asset management is an area of emphasis specially for real estate professional. Real estate holding, real estate as a present value of the firm are the factors on which industry ranking is based

**Jodie Copp Poirier (2000)** found out that gender parity is the area which is slow for change. Despite of changes in the position ow women specially in the role of leadership this discrimination exists nowadays also. However, as women remain attached with their ethics of work ensure their career development

**Dan Auito (2000)** concludes that education is the main element to gain wealth in real estate. Relying on various attractive scheme is not the right way to gain success and wealth in this area. They also suggested that to opt business in this sector one must get proper knowledge through books and courses

**Max Beekmam and Dipa Kapas (2006)** analyse that portfolio diversification is the main reason of higher return in real estate. There is an increasing trend registered in urban area commercial estate

**Primary Real Estate Advisors Private Limited (2005)** analysis explains that there is upward movement in demand of real estate sector in spite of higher prices and increased. In 2004 residential prices increased by about 15- 20

**KSAB Securities Limited (2005)** this paper explains that Real Estate Investment Trust is a security of investment in real estate sector and treated as security. There are two type of security one is equity REITs where investment is done in own properties and revenue has a linkage with rent however another is mortgage REITs where property ownership is engaged and there is a liknage of revenue to the interest on mortgage loan

**Hui Deng (2006)** stated that due to real estate development in china the revenue collection gained by local government is showing upward trend. This revenue is utilised in the development of infrastructure and public utilities head in local level which is eminent in the growth of local area

**Ashok Bardhan and Cynthia. A. Kroll (2007)** this paper focuses on analysing opportunities and threats which firms faces in this sector, this include firms of US as well as firms in other countries. It is also stated that local factors are the major factor which primarily or mainly effect the construction sector

**Sunil Tyagi and Desisha Kapur (2008)** find out that there is a major role of foreign investment into real estate sector for growth. Due to FDI the demand of this sector can be fulfilled.

**Bharat Mittal (2007)** has stated that most of the sector possess for real estate sector. Important sector in this regard is residential, industry, hospitality and healthcare. These are the sector which are the source of great demand for this sector.

**Bhavleen Arora (2008)** stated that for the development of Indian economy FDI is a good option from where real estate sector can get investment. As real estate sector has good possibility of growth so it attracts FDI. This paper concluded that this sector has good future along with risk involved in investme

**Praveen Kumar (2008)** analyses there is a difference between real estate as an asset class and capital market asset. It is a natural process of hedging against inflation which ensure low volatility and good return

**Dr.Rupa Khanna Malhotra et al. (2021)** Study find out that this paper has done a comparison of pre and post GST impact on this sector. Some hurdles can be noticed after Gst as no ITC, compliance burden. There is increase of rate of tax from 12% to 18%. But ITC benefit can be avail in supply chain and interstate tra

**Abhijit Sanjay puri et al (2021)** This paper explain the effect of GS , RERA and Covid on construction sector. As RERA ensure regularisation and transparency however due to covid number of worker reduced and legal action burden came in to force due to noncompliance of norms, GST has reduced cost of construction up to 1.2% and if ITC will come in force then cost may be further reduced however post gst the cost of construction was increases

**Chitanya D.Bhoite et al (2021)** This paper with the help of 120 questionnaire intended to findout impact of GST implementation on construction cost, which will influence housing developer and housing value. It is found out that 1.44% project cost has been reduced due to GST and only labour contract is at loss and attention to be paid at the contract bidding for labour contract

**Study Swati P. Sangolkar et al (2021)** analyse that this paper has taken in to consideration the construction of building by Ministry of External Affairs for its official for residential purpose and calculated tax from previous tax system and from GST system, then by using SPSS analysis concluded that ITC has reduce tax burden, labour contract are at loss, Cost of under construction unit will increase, cost increment due to GST and tax exemption leads to issue in developer business capital flow, so to cover the risk and to maintain the profit Price of housing building will increase

Subrata Das et al (2021)

This paper presents analysis of post GST impact on real state sector and concluded that multiple registration exists in GST as supplier registration is compulsory in all the state

from where he makes a taxable supply of goods and/or services and his aggregate turnover in a financial year exceeds ₹ 20 lakhs

Himanshu Gupta et al. (May 2020) v GST is expected to be a confidence booster for the industry. Will attract the interest of purchaser and investor. GST, @12% is applicable on under

construction property however GST is not applicable on completed or ready to sell or move properties now. As a result, buyers will largely get many benefits from the reduced prices and Tax on tax will ultimately bring down the total cost of construction. It will help in reduce the price of housing units which will ultimately encourage the real estate sales

Saurabh Srivastava et al (2020) Analysis of Pre GST and Post GST taxes on works Contract in Construction Industry This study focuses on per and post GST on works contract in construction industry for which a live project on Noida, Uttar Pradesh taken into consideration and calculated tax as per UPVAT and then through GST and found out in comparison of pre GST tax Now the tax of post GST has been reduced to 6.42%. GST has simplified the earlier cumbersome process as in VAT calculation of goods and calculation of service was different.

Rajkumar kankariya (2019) In Pre GST regime the Builder or Developer had to deposit several Indirect Taxes collected from customer but GST has reduced the cascading effect but it has increased the cost of construction for the builders and there was slowdown in the real estate sector. The CBIC has notified Rules & Procedures for builders intended to take benefits of reduced rates (1 to 5 % on sale of under construction flats commencing on or after 1st April, 2019. Government is giving relief on affordable housings

Nikhil, p, Rane(2020) It can be concluded that cost of under construction residential unit will increase post GST implementation. This will be a hefty blow to industry, which is already suffering from slow sales. Industry bodies need to urgently engage with government to minimize this impact by clarifying position on works contract, composition scheme and already paid service tax and VAT by developers on under construction property.

Sweta Rani (2018) This paper talks about opportunity and threats imposed by GST on construction sector such as Over one crore houses to be built for the homeless in rural areas by 2019. Urban have been permitted 1,427,486 houses in 201. the projects under affordable housing scheme are exempted from GST. Some challenges are high GST rate Single input cost, single window clearance, RERA compliance cosh, High home loan interest due to non-industry status.

GST can increase the GDP by 2% in future, then the demand of the real estate will definitely rise and will also generate more employment in the future

Meet H et al (2018) This paper says to get a clear picture of changes in cost due to GST, detailed study of a project is done to check cost variation. for the execution phase of the project. Input Tax Credit (ITC) which is an accounting term is not taken in consideration as its out of scope of engineering studies. Even without ITC, there has been a considerable reduction of up to 1.2% of the Project Cost by application of GST. contract.

Basavanagouda,Dr et al (2018)This paper taken into consideration pre and post GST price of cement's rate reduction on cement will stimulate the demand for cement, which will increase the economies of scale in the form of higher production and sales as well as exports of cement will increase. India's cement industry will attract more FDI to infrastructure development and construction projects.

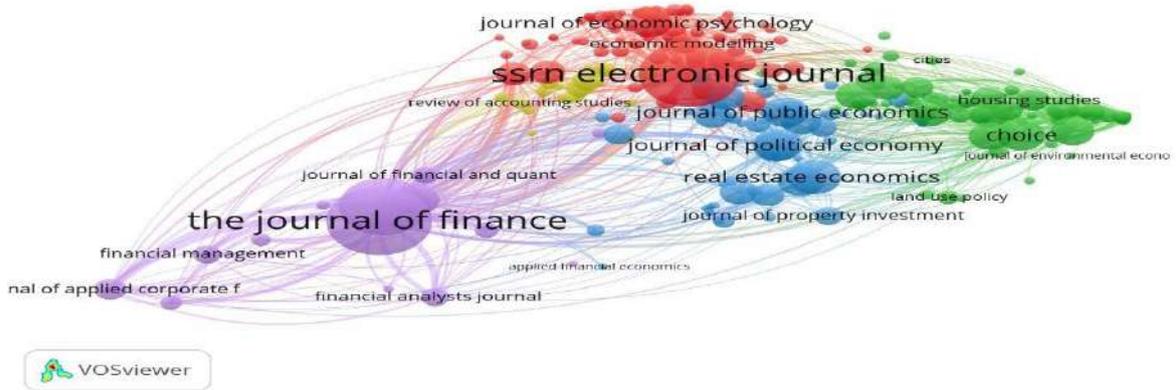
**1. Research Methodology-** This study uses Exploratory approach which is also known as Ex post facto study research which starts after the fact has been established without interference from the researcher. In this quasi-experimental study, we have examined an independent variable GST and its effect on a dependent variable, that is Construction and Real Estate Sector

## 2. Bibliometric Analysis

A bibliometric analysis is done on the topic Impact of GST on Construction and Real Estate sector, GST impact on real estate as dominant factor

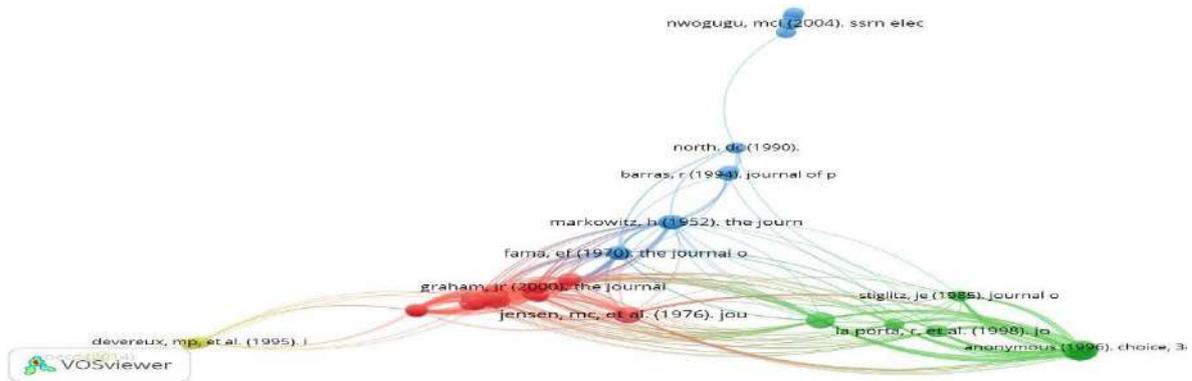
### 2.a. Bibliometric analysis of Co-Citation and Source-

On this topic a bibliometric analysis is done where three minimum number of citation of a source is considered



**2.b. Bibliometric analysis of Co-Citation and reference**

On this topic a bibliometric analysis is done where three minimum number of citation of a cited reference is considered



**2.c. bibliometric analysis of Co-Citation and Cited Author**

On this topic a bibliometric analysis is done where three minimum number of citation of an author is considered



1-Total Articles reviewed is 75, which could be increase to get clearer picture

2-Study area is India excluded the rest of the world which will hinder broader perspective excluded the rest of the world

3-Post GST period taken into consideration is 2018-2021, Year 2022 is ignored which could contribute more

**4. Conclusion** GST has impacted the construction sector quite well GST has subsumed multiple tax and has reduced cascading effect which is beneficial and will ensure increased revenue for this sector .At initial stage due to increase in rate of tax from 12% to 18% and no ITC which led to increase in cost of construction which directed this sector towards slowdown.Now cash flow in a project has fixed duration which guided improved quality of work. GST ensure this sector to work on construction and risk management of the projects which is significant. To reduce the cost various options are considerable especially technological one. Due to RERA, Demonetization and GST new challenges must be encountered by the Developers. The government is making effort to boost this sector by giving relief on affordable housing as rates are reduced (1 to 5 % on sale of under construction flats commencing on or after 1st April, 2019.One can conclude that GST has a great impact on construction and Real Estate Sector for the better

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## A STUDY ON “THE USER PERCEPTION OVER THE MARKETING STRATEGIES OF START-UPS IN INDIA”

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### **ABSTRACT:**

For the past decade India has been a great home for successful startups and it also has simplified people's life to greater extent. Start-ups are meant to be solution for general public problems and also act as an alternative for their day-to-day activities. India has a greater employable population which has been one of the important factors for starting a new venture. Also, it had led to the birth of thousands of new start-ups. It is estimated that by the next few years there will be numerous other start-ups. This research paper is based upon how marketing plays a major role in developing India's start-up market and how it helps creating a change in the user perception of startups. Marketing is one of the major components of start-ups along with the user perception which plays a key role for its success. Marketing bridges the communication gap between the service provider and consumer. And the consumer perception provides the success path to the start-up. So, this study shows the impact of marketing in user perception of startups.

**KEYWORDS:** Marketing, User-perception, Startup, entrepreneurship, LGP and GDP.

### **INTRODUCTION:**

India is the fifth largest economy in the world. India has great potential and has over thousands of companies. Each and every company is a startup in its early stage. A startup is the idea of an entrepreneur who comes up with a product or a service which eases the life of the consumer in certain ways. Startups do not become a success overnight instead it requires a lot of patience, immense planning and also a positive user response. In 1990s, the entrepreneurs who had a business idea were not able to execute it due to lack of resources like capital, labor force, wide market, government policies etc. The trend of start-ups began after the LPG policy of 1991 taken

by union finance minister Dr. Manmohan Singh under the presidency of P.V Narasimha Rao. This policy gave a boost to India's GDP and encouraging several entrepreneurs to convert their ideas into business. And it attracted many foreign investors getting into India's markets. The major mistakes done by a firm during its early stage is failing to notice the importance of marketing their brand image along with getting a good user review. If a firm does not market itself standardly then it can neither get the user review nor attain success. Startup overcomes several problems in finance, shipping and deliveries, staff hires but they face failure in proper marketing of the product or services. Startups fail to understand that one bad review can end their firm and also that every user's review is important. Marketing methods cost a lot more in the initial stages and also is necessary for the success of startups. Other aspects are for sure essential for the company but marketing is needed to expand their base and reach out to customers far out.

## **STARTUP**

The objective of any startup is to find out unique solutions for any complicated problems, to resolve the past problem in a creative and efficient way and to satisfy its user. The Dictionary defines Startups as a small business that has just been started. But during this research we have come across many cases which have gone beyond the boundaries of this definition. A more popular definition is from Eric Ries, he says, "A startup is a human institution designed to create a new product or service under conditions of extreme uncertainty". So, when we look at these two definitions together, we get a broader, more holistic perspective about startup. People generally don't put Facebook and Amazon in the same category but when we look at it as startups, we can say that most companies began as a startup and thus proving that startups don't generally have to be small. Startups thrive hard towards innovation, development, deployment, or commercialization of new products or service.

## **USER PERCEPTION**

User perception is simply a consumer's first impressions, response or ideas of a new product or service. These perceptions or pre-notions are based on the expected utility, efficiency, aesthetic appeal, ease of use and public opinion of the product or service. This arises from a mere anticipation of how the product or service might benefit its user. User perception is subjective in nature and also differs from person to person. An entrepreneur expands his idea but the user perception decides its development and success. And the user perception is considered as one of the important factors in a firm.

## **ROLE OF THE GOVERNMENT FOR STARTUP**

In the age of globalization and economic crises around the world, the Indian government is now open or rather sensitive and adhering to the ideas and developing trends in the world of commerce. The whole concept of startup companies acts as a boon for the government itself as it generates employment and also increases the standard of living of its citizens which is otherwise now a herculean task for the government. So, the 21st century government finds it rather beneficial to encourage and have proper regulations for startups in order to speed up the economic growth of the countries. There are many other state level and national level programs, policies, benefits and initiatives taken by the government towards startup. Honorable Prime Minister Narendra Modi introduced “Startup India, Standup India” schemes to promote Bank Financing for startups and offer incentives to boost entrepreneurship and job creation.

## **ENTREPRENEUR**

An entrepreneur is an individual who creates a new business. They are also seen as innovators and source of several ideas. An entrepreneur requires many skills and talents in managing or developing the startup. Not everybody can be a successful entrepreneur, but hard work and dedication is required to become one. In the daily course of business, an entrepreneur faces a lot of risks but these risks can be highly rewardable to the firm and also to the entrepreneur.

## **RESEARCH PROBLEM:**

During its initial stage, people are not aware of the product or service provided by startups which are available at their fingertips. Also, the inconvenience and hesitation of trying something new plays a crucial role in this research. As Indians, we do not stray ourselves away from traditional and established organizations and incline towards the same product or service. We have also advanced our wants and also our satisfaction level has increased. Entrepreneurs have a primary motive of earning profit rather than marketing their services which has social and mutual benefit. These factors led us to the question, why marketing strategies play such a vital role in the success of a startup and also the impact it has on its user. Also, it gives us an overview of how the shift from traditional marketing strategies to modern marketing strategies increases the outcomes of the business venture to a greater scale. As people are becoming more adaptive towards the impact of new technological advancements and have an urge to try something new, modern startups should also flourish along with the needs and wants of a consumer. It should also provide maximum utility and satisfaction with lesser grievances.

**SCOPE OF STUDY:**

This research paper is titled “A study on the user perception over the marketing strategies of start-ups in India” gives us an overview of the important role played by the general public and marketing in the blooming of startups. This study includes general public’s perception and thoughts about marketing strategies of startups. There are also some suggestions and limitations of the research.

**OBJECTIVE OF THE STUDY:**

- To understand the meaning of startup and marketing.
- To recognize the importance of marketing strategies in startups.
- To evaluate the user perception on the startups.
- To understand the impact of marketing strategies on user.
- To advise on marketing strategies and its value for the success of a startup.

**HYPOTHESIS:**

H0- There is no significant relationship between marketing and strategies and the development of startup.

H1- There

is significant relationship between marketing and strategies and the development of startup.

**RESEARCH DESIGN:**

An organized questionnaire has been used in this study to collect data from age group 18 and above from various parts of the country. Although majority of responses has been recorded from South India due to lack of resources, the data collected is first hand from people of occupation from different field. Google forms have been used for the collection of data. 100 responses have been collected for data analysis. Sampling method has been used to analyze and interpret the data and the results are given therefore.

**LIMITATIONS:**

- This study was conducted within India.

- This research completely focuses on the marketing aspect of a startup.
- Primary data was collected from random samples.
- This research is a theoretical based.

### **CONCLUSION:**

In this study it was found marketing plays an essential role in the success of a startup. In the previous studies researchers only focused on the various aspects of the company like their business model, operations, sales and development whereas their area of interest was lacking in giving importance to marketing strategies and its impact on users. So, this study bridges the gap and provides an overall understanding on how marketing strategies helps in development of startups. This study can also pave way for future researchers to do an in-depth study on the related topic. Therefore, from this research we can prove the alternative hypothesis which states that the marketing strategies does have a relationship with the deve

## DIVERSITY IN WORK PLACE

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### **INTRODUCTION:**

Diversity in work place means composed of employees with different characteristics such as Gender race ethnicity etc., It includes employees of different genders, age religious languages abilities professional background socio-economic backgrounds and educational backgrounds.

### **NEED FOR THE STUDY:**

In Today Corporate sector biggest challenges faced is work place diversity. These diversities are cultural, age gender and ethnicity. So proper training and development plays a important role in managing diversity in work place.

### **OBJECTIVES OF THE STUDY:**

The objective of these research paper is

1. To understand the relationship between work place diversity and employees performance.
2. To analyse the relationship between training and development and the employees performance.
3. To suggest the measures to eradicate the diversity in work place.

### **SCOPE OF THE STUDY:**

This paper covers the study of different types of diversities in work place are

- ✓ Cultural
- ✓ Vacial
- ✓ Religious
- ✓ Gender

- ✓ Disability
- ✓ Research Gap – Not much studies in this area. So it's a new findings.
- ✓ Research design – The research is conducted different types of employees.

This study have the following limitations.

1. It covers only 20 companies in Kakkalur and Thiruvallur Area.
2. The information collected through questionnaire from the employees.
3. Most of the companies, employees belongs to the male especially in Engineering core companies.

### **IMPORTANCE:**

This concept clearly says the acceptance and inclusion of employees of all backgrounds. A diverse workplace is an important asset, since it acknowledges the individual strengths of each employees and the potential they bring.

### **TYPES OF DIVERSITY IN THE WORKPLACE:**

The different types of diversity in work place are of (1) Cultural diversity (2) Racial diversity (3) Religious diversity (4) Gender diversity (5) Disability.

### **PILLARS OF DIVERSTIY AND INCLUSION:**

1. Hire for men and ability rather than perceived culture fit.
2. Remove the bias in recruitment process.
3. Actively recruit in and engage with diverse communities.
4. Encourage input at all levels of the company.

Issues is work place diversity:- There are issues in workplace diversities are

(1) Gender equality (2) Physical and mental disabilities (3) Generation gap (4) Language and communication (5) Accomodation of beliefs (6) Acceptance and respect (7) Ethnic and cultural differences.

**STAGES OF DIVERSITY:**

According to Bennetts developmental model of intellectual sensitivity, there are six stages that a person must go through to become culturally sensitive denial defence, community, minimisation, cultural awarness, cultural sensitive, relatively adaptation and integration.

**STRATEGIES FOR EMBRACING DIVERSITY IN THE WORKPLACE.**

- (1) Start the conversion (2) increase accountability and transparency (3) Develop inclusive leadership skills (4) Notice the diversity during discussions and decisions (5) pay attention to how all people are treated.

**WAYS TO ACHIEVE THE DIVERSITY IN WORK PLACE ARE:-**

- (1) Be aware of unconscious bias (2) Communicate the importance of managing bias (3) Promote pay equality (4) Develop a strategic training program (5) Acknowledge holidays of all culturals (6) make it easy for your people to participate in employees resource groups. (7) mix up your teams.

**BENEFITS OF DIVERSITY IN THE WORK PLACE:**

- ✓ New Perspectives
- ✓ Wider talent -----
- ✓ More innovation
- ✓ Better employee programme
- ✓ Increased benefits

**DIVERSITY IN WORK PLACE ACHIEVE THE FOLLOWING:**

- ✓ Diverse organisation spark innovation
- ✓ Diverse leadership expands an organisation customer base.
- ✓ Diverse project teams collaborate more effectively
- ✓ Diversity improves team performance.
- ✓ Diverse teams make better decisions.

**OUTCOMES OF WORK DIVERSITY IN WORK PLACE.**

- ✓ Increased creativity
- ✓ Boosts productivity
- ✓ Various prospectives
- ✓ Improved innovation
- ✓ Faster problem solving
- ✓ Improved decision making
- ✓ Reduced employee turnover
- ✓ Helpful language skills.

Why diversity in work place need ?

Diversity brings in new ideas and experience and people can learn from each other. Bringing in different ideas and perspectives leads to better problem solving. Working in diverse teams opens dialogues and promotes creativity. The value of diversity is true of our culture.

If diversity is lack in work place it affects the (i) lack at help for discrimination victims (ii) lack of new energy (iii) lack of consumer support (iv) lack of innovation.

Difficulty in implementing diversity in place. Among the most noticale disadvantages of cultural diversity include language barriers, social tensions and civic dis engagement. It should be noted that these are not reasons to avoid diversity, but rather factors to keep in mind as society heads towards a more diverse future.

### **CHALLENGES IN DIVERSITY IN WORK PLACE:**

- (1) Colleagues from some cultures may be less likely to let their voices be heard.
- (2) Integration across multicultural teams can be difficult in the face of prejudice or negative culture stereo types.
- (3) Professional communication can be misinterpreted or difficult to understand across languages and cultures.
- (4) Navigating visa requirements employment laws, and the cost of accommodating work place requirements can be difficult.
- (5) Different understandings of professional etiquettes.

(6) Conflicting working styles across teams.

**Dimensions of work diversity:**

Age diversity

Race and ethnicity diversity

Gender diversity

Physical workplace diversity ability and disability

Mental ability and disability.

Interest diversity

Diversity of citizenship

Education diversity

Spiritual / Religion diversity

Family status diversity

Functional diversity at work

Genetic diversity

Considering the above points I collected information from Kakkalur industrial hub and some of the industries in Thriuvallur. I found the following in my research work:-

1. Bias and discrimination is more than 50% of workers are met in work place.
2. More gender imbalances in engineering related companies.
3. Transforming experience / knowledge of seniors showing all kinds of diversity to their subordinates.
4. The employees, workers and staffs are still not changing their minds towards caste, religion etc., so here diversity is a problem, but if properly managed can increase the productivity.
5. The diversity arises between the employees due to casual and temporary employees and permanent work force.

**Suggestions:**

1. Diversity includes gender, religion and ethnicity has been shown to improve retain the employees and reduce the cost. So diversity in work place much needed in present era. The proper training session will be arranged to overcome difficulties associated with work diversity.
2. Diversity enhances creativity innovation and so diversity creates a job market in various level. The recruitment policy will be changing accordingly.
3. Diversity improves brand image of the product. So training methods will be changed accordingly.

**Conclusion:** Diverse work force is more important for now days, because of changing consumer behaviour and market conditions. So the Management educate the employees about diversity in culture gender age etc. so the proper training and development can change the diversity in work place.

## ETHICAL ISSUES IN WORK FROM HOME CULTURE

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The Covid – 19 pandemic has resulted in a shift of working habits from home. This has led many to ask whether it might be the beginning of a more permanent change in working habits such as more carries significant ethically salient benefits and draw backs regarding urban development, climate change, mental health and more.

Despite the apparent novelty of the idea of having many permanently working from home, this was the norm for most people for most of human civilization. Two hundred years ago most people in North America lived and worked on farms. Artisans making textiles and other goods largely working from home. The steam engine allowed for a centralized location that could allow for efficient mass production. Early industrial production even still relied on the putting it system where centralized factories would make goods and then subcontract the finishing work on the item to people who worked from home. In other words concept of going to work everyday is a relatively recent invention in human history.

Work from home can also be less healthy. For example, the concept of sickday is heavily intertwined with the idea of going to a work place. The temptation may be to abolish the concept of sickday is to stay home and avoid making co-workers sick. However even from work from home our bodies need rest.

The Prindle Institute.org

### OBJECTIVES OF THE STUDY:

1. To identify the issues faced by the employees performance during work from home in pandemic situations.
2. To evaluate the performance of various industries who deployed their employees in work from home.
3. To provide suggestions and recommendations to enterprises who working from their homes.

Data were collected by random sampling from the respondents regarding rate their performance through self assessment questionnaire to analyse mindset, working pressures, comfortability, stress level, overall performance comparing with overall work environment culture.

### **LIMITATIONS:**

The companies did not encourage the employees the idea of distributing questionnaires among these employees from only 10 companies in Tiruvallur District.

It is not applicable for all types of companies.

Companies with larger resources and Technological advancement that can implement this concept as work from home often requires a flawless network correction.

### **NEGATIVE CONSEQUENCES OF WORK FROM HOME**

Isolation from the colleagues less defined work life boundaries higher need for self discipline  
Reliance on private infrastructure. Communication difficulties with colleagues.

Feasibility working more from home.

Work from home put working women under a triple burden.

### **ETHICAL ISSUES IN WORK FROM HOME CULTURE.**

#### **Issues:**

Work from home could be more harmful to the Climate. Research from U.K. shows that remote working in the U.K. may only be helpful in the summer. They found that environmental impacts could be higher in the winter due to the need to heat individual buildings instead of a single office building which can be more efficient.

#### **Less Healthy:**

**Work From Home** can also be less healthy. For eg:- the concept of this sickday is heavily intertwined with the idea of going to a work place. The temptation may be to abolish the concept of the sick day with the reason being that the whole point of a sick day is to stay at home. Our bodies need rest. Work place experts found that those who **Work from home** tend to continue to work during a sickness and this may lengthen the recovery time, lead to burnout and ultimately lead to less productivity.

#### **Lower Salaries:**

**Work From Home** permanently allows the employees to reside in areas where the cost of living is cheaper. This may mean Salary reductions since business has have a larger pool of potential

employees to choose from and thus can offer lower, but still competitive, salaries in areas where the cost of living is cheaper.

### **Privacy:**

Employers are now tracking employees at home to ensure productivity, with software able to track every word typed. GPS location, and even to use computers camera. Even in some case employees are being monitored without knowing them they are monitored.

### **Work From Home is now the new Normal.**

During these times job seekers are more interested in finding work from home jobs to keep their future secure and find relevant job opportunities.

Although remote working has its own benefits such as no commuting time more work hours at hand, there are also some challenges.

## **1. MANAGING DISTRIBUTORS:**

**Work From Home** involves a lost of struggles in keeping the distractions away.

These distractions could be anything kids at home, friends on call, TV or Phone calls. It may not only reduce the work productivity but also the overall quality of work delivered with self discipline, there are simple ways you can successfully manage these distractions.

### **Solving the issues in Work From Home.**

In order to overcome from distractions at home is to find a separate and dedicated work space for employees.

Managing the time between productive and unproductive activities during a day should be split up.

## **2. COMMUNICATING AND COLLABORATING WITH FEARS.**

Most of the time employees find it difficult to collaborate with their team members and feel isolated. This situation become worse when an employee working with a team on a common project, that requires several discussions and involvement from everyone located distantly.

Overcoming these barrier first step should be to set an effective communication channel like Microsoft teams, Zoom or any other channel.

**3. FACING TECHNOLOGY:**

Internet connectivity or technology issues that refrain employees from a smooth flow of work. Here the company ensure that the team has a right tools and techniques to work remotely.

**4. UNPLUGGING AFTER WORK HOURS.**

Many employees fear to say no to their managers for unusual demands of delivering work at odd timings.

Switching off from work at the end of the day is equally important as logging at the right office timings.

In order to overcome this hindrance is to create an achievable to do list of work focusing only on this task.

**5. MANAGING PRODUCTIVITY:**

Without the presence of a supervisor, many employees find it a challenge to maintain their productivity.

Low productivity is not the fault of the employees alone. Multitasking to meet several project timelines is a common reason for lower Productivity.

**PRIORITIZE:**

If the employees have several tasks prioritize them and pick up the next one only after completing the first one.

**EMPLOYEE LOYALTY AND RETENTION:**

Climbing up the office ladder is something in which all employees tend to engage. The removal of shared workplace lowers this potential.

Remote work isolation can also lead to employees feeling less connected towards employers. despite being valued members of the organisation. These issue can potentially lead to high attrition rates even with the best work life balance offered.

It can be eliminated by engagement of employee, careful, thought needs to ensure their progression with an organisation is not compromised.

**PROVIDING EMOTIONAL SUPPORT.**

Unfortunately Work From Home makes this fundamentally more challenging, small but vital tools like open door policies can quickly go out the window.

In order to overcome this problem, Virtual implementation of such policies should replace the appropriate guidelines.

### **CONCLUSION:**

Overcoming challenges of working from home, understanding the challenges of Work from home faced by the employees by the employer is essential in order to address this issue.

It is a common perception that only employees are facing challenges in Work From Home, but in reality not only the employees but employers also facing the same problem.

Therefore understanding the Challenges posed by the Work from home for both the employers and employees is major step in solving this issue.

### **RECOMMENDATIONS.**

Work From Home on all workings is not a prospect. Instead the type of work must be kept in mind while making this decision.

The organisation should keep this as an option so that the employee can make an informed decision, which in turn boosts work life satisfaction.

The company set a side two or three days of a week for the employees to work from home and bring them

## ADAPTIVE LEARNING ENVIRONMENT TO DETECT THE LEARNING STYLES OF THE STUDENTS

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### ABSTRACT

**This paper reflects the depiction** of each learners preferences in their learning styles. Detection of learners learning style is very important criteria in the adaptive learning environment of any learning management system. In the present existing learning management system, preference is more towards content management and students' data analysis. Data mining play a very major role in detecting interesting patterns from vast amount of data. Educational data mining (EDM) is a specific data mining field, concerned with developing approaches for discovering the unique and gradually large-scale data that come from educational data. Using the mining methods/ approaches helps us to understand learners preferences in their learning styles. This paper mainly focuses, to detect the learners' preferences in learning styles using Felder Silverman Learning style model.

**KEYWORDS**—e-learning, Data mining techniques, FSLSM model.

### I. INTRODUCTION

Applying e-learning in the educational process enhances comprehension of the educational system and contributes to the excellence of technology-based learning. The following characteristics describe e-learning methods:

- Technology-based instruction transmits the course materials wherever they are required.
- Consists of the learning objectives' content and methods.
- Use electrical components like animation, graphics, text, music, and video in your writing.
- Encourages the use of instructional strategies like examples, practice, assessment, and feedback to assist students learn new information and skills. [9].

## II. The Principle of the Research Work

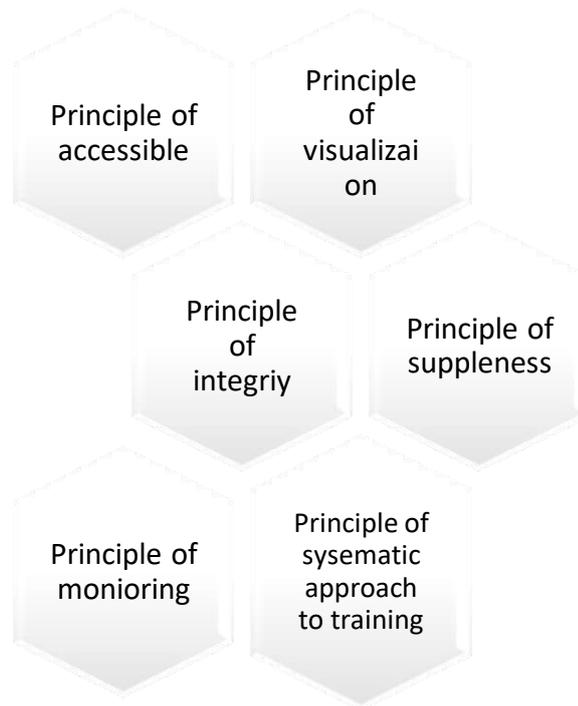
- The objective of this study is to detect learners' preference in the learning styles.
- This study used Felder Silverman learning styles model (FSLSM) to identify the learners' learning styles.
- Discussion of learner preferences in 4 dimensions to process information actively

## III. Adaptive learning management system:

The effectiveness of an e-learning management system in gauging student interest in online lectures cannot be overstated. When teachers are transferring material and having students use their knowledge, it is simple to see the students and their interactions. [7].

It has occasionally been used, depending on the fundamentals of an e-learning management system[3]. The successful adoption of a virtual learning environment in society can be facilitated by the combination of these elements and web-based learning (VLE).

In order to identify students' preferences, learning styles from students' group, and responses to a particular pedagogy based upon FSLSM learning management system, students' preferences are predicted using classification technique and applied to the respective data which is collected from the students demographically, such as urban, rural, and semi-urban. The produced model may accurately identify the preferred learning styles of the students[2]. The subsequent principles of an e-learning management system is illustrated in the below diagram[13].



*Fig 1: Pedagogy principles in e-learning system*

#### **IV. FLEXIBLE AND GENERAL APPROACH FOR DETECTING LEARNING STYLES.**

This methodology tends to identify each student's preferred learning style[14]. Additionally, it calculates learning styles using Felder Silverman's learning styles model's Index of Learning Styles (ILS) methodology (FSLSM). It examines the relationship between the outcomes of the ILS question and the learners' preferences. [1].

The sample is divided into three categories based on its geographic location: urban (2187, or 66.5%), semi-urban (950, or 28.9%), and rural (152, or 4.6%). 3289 pupils from urban, rural, and semi-urban areas made up the sample. The results enable us to categorise the various learning approaches that are better suited for pupils with particular psychological profiles. The seven different learning styles are depicted in the diagram in Fig. 2.

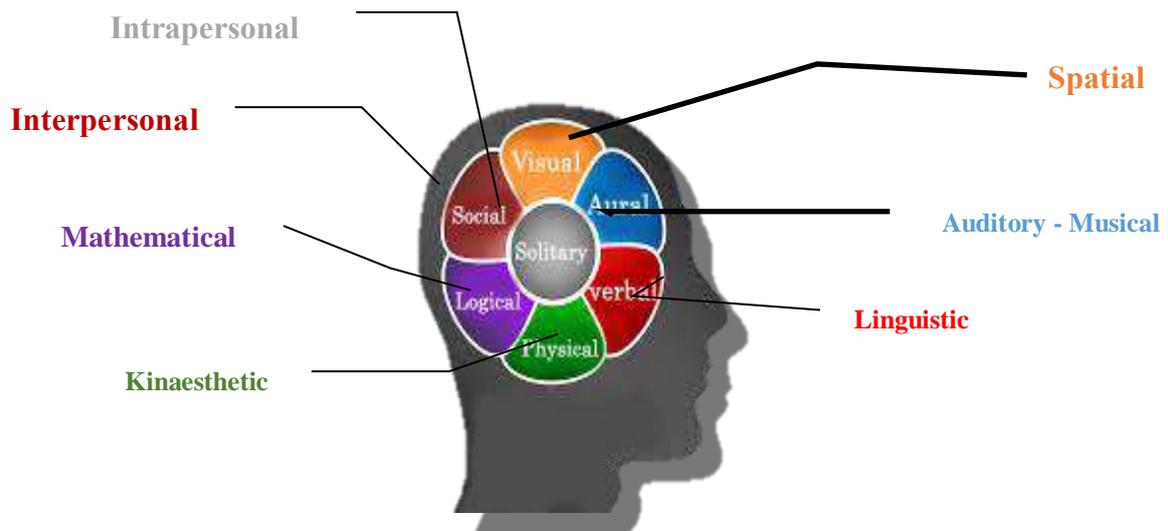
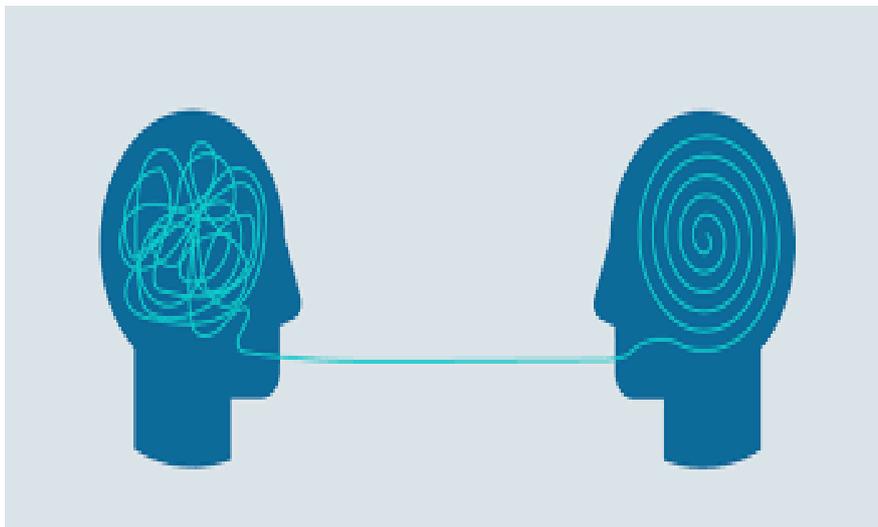


Fig 2: Learning Style Model

A crucial step in determining a learner's strengths and shortcomings is to observe their learning preferences and predict their own learning patterns. Learning styles are defined as attitudes and behaviours that influence how someone learns [5]. Learning styles are crucial components of an effective teaching-learning process in educational contexts [16].



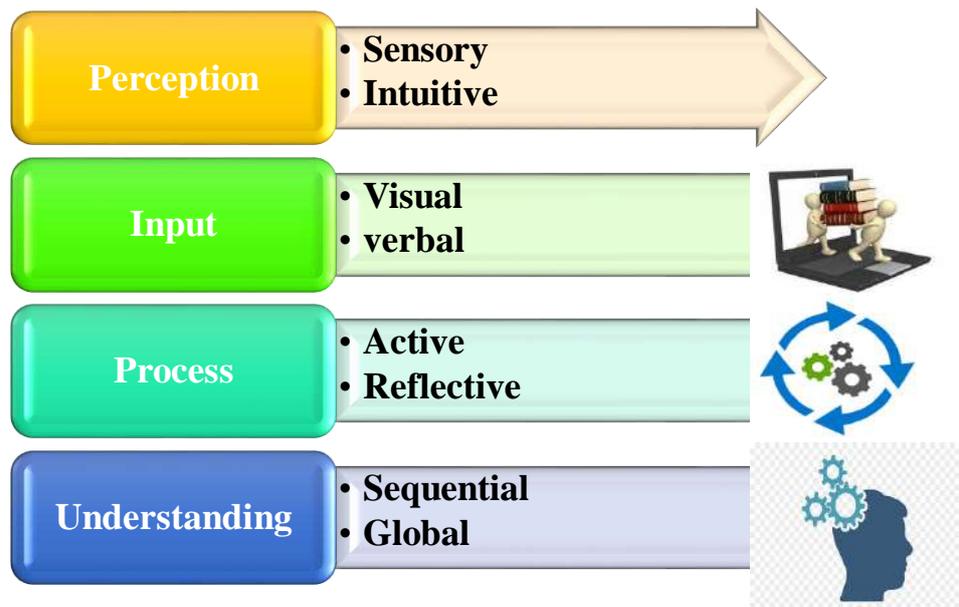


Fig 3. The dimension in Felder Silverman Learning Styles and also the learner's inclinations

#### 4.1 Learning Styles from Patterns of Behaviour

##### 1. *Sensing:*

In this type, learners prefer their learning styles in concrete thinking, practical, concerned with procedures and facts.

##### 2. *Intuitive:*

In this type, learners who prefer conceptual thinking, concerned with theories and meanings and innovative.

##### 3. *Visual:*

These learners prefer visual presentation, graphs, pictures, diagrams and flow charts.

##### 4. **Verbal:**

In this type learners prefer written and spoken explanations

**5. Active:**

In this type, learners prefer to try things out, working with others to group to gain knowledge from others.

**6. Reflective:**

These learners prefer thinking things through working alone and they like to work out alone in their own pace.

**7. Sequential:**

These learner's prefer their learning styles in holistic thinking, system thinkers and learns in a huge group of students.

**8. Global:**

These learners prefer holistic thinking, systems thinkers, learns in large leaps[6].

The Index of Learning Styles (ILS), a survey tool from FSLSM, is used to evaluate preferences on four dimensions of a learning style model developed and validated by Richard M. Felder and Linda K. Silverman: active/reflective, sensing/intuitive, visual/verbal, and sequential/global. This FSLSM is based on Cartesian products of Richard M. Felder's phonological variable. Higher Level of Preferences (LOP) must be used as a result of ILS questionnaire.

- If the student's preference score is between 1 and 3, it specifies balanced preferences on both the dimensions of scale.
- If the student's preference score is between 4 and 7, it specifies moderate preferences for one dimension of scale.
- If the student's preference score is between 8 and 11, it specifies strong preferences for one dimension of scale.

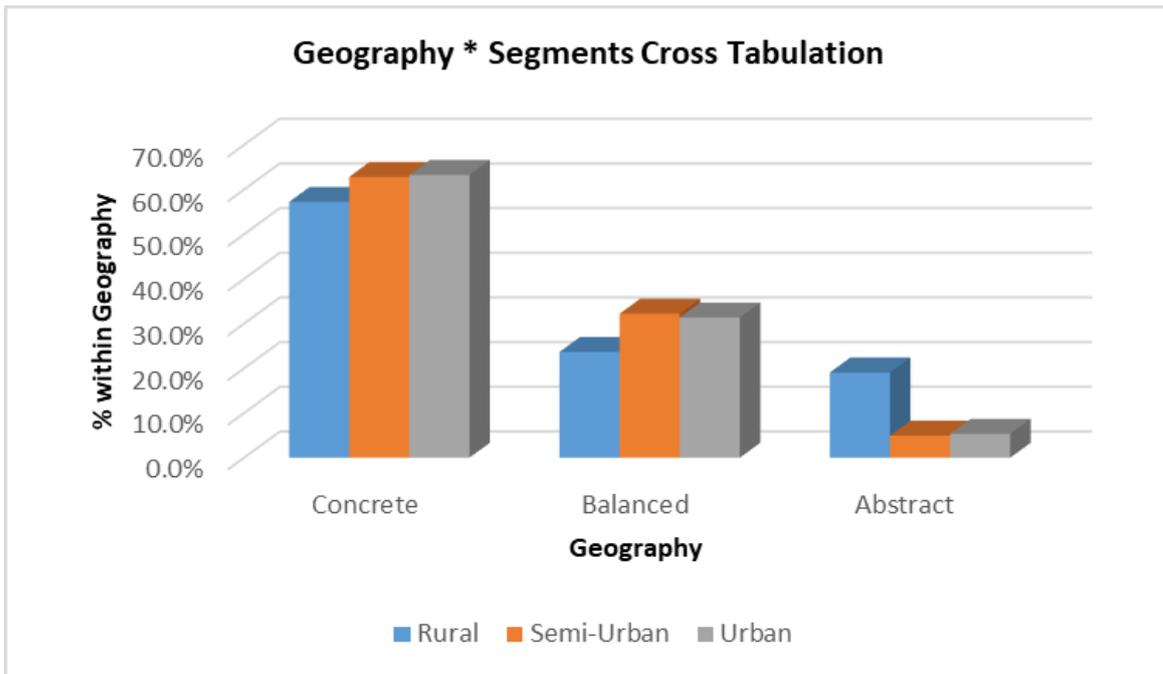
## V. results & findings

From Fig 2 and Fig:3, it can be observed that the clusters in three categories obtained based on the correspondence analysis. It can be noted that the cluster 2 and cluster 3 are balanced, hence they can be merged to a single cluster. The cluster 1 is name as “Concrete” and Cluster 4 is named as “Abstract” based on the learning style preferences of the respondents. It can be noted that the students were not “Reflective” and majority of them were “Active”.

From the analysis of data **31.3%** preferred “Balanced” type, **62.9%** of the respondents have preferred “Concrete” type of learning style, and only **5.9%** of the respondents fall under “Abstract” type. It can be noted that the students were not “Reflective” and majority of them were “Active”. Therefore, following results shows that active type learners prefer to try things out and prefers working with others group to gain knowledge from others. From the sample questionnaire dataset, it was observed that students preferred active, sensory, visual, sequential learning styles method.

Table 2 **CLUSTER CLASSIFICATION FOR LEARNING STYLES**

Concrete	Balanced		Abstract
Cluster 1	Cluster 2	Cluster 3	Cluster 4
Active	Balanced	Balanced	-
Sensory	Balanced	Balanced	Intuitive
Visual	Balanced	Balanced	Verbal
Sequential	Balanced	Balanced	Global



**FIG 3 Graphical representation of students preference in active /reflective dimension**

## VI. CONCLUSION

Most of the academicians and researches in Educational Data Mining (EDM) gives special attention towards the usage of e-learning system. Learners with interpersonal learning styles prefer to learn in groups or with other people which provide a way to collaborative learning with peers and instructors. Based upon the FSLSM dimension, the graphical representation describes concrete type of students from urban, rural and semi-urban learning styles in holistic thinking, system thinkers, learns in large group, visual presentation, graphs, pictures, diagrams and flow charts, try things out, working with others to group to gain knowledge from others, thinking, practical, concerned with procedures and facts.

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## **A STUDY ON ELECTRIC VEHICLE FINANCING FOR PURCHASE OF ELECTRIC VEHICLES IN INDIA**

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### **ABSTRACT**

Electric vehicles significantly contribute towards safeguarding environment and saving cost in the long-run. Since electric vehicle sector is a developing one in the automobile industry, there is a need for standardised policy for manufacturing, finance and distribution of the same. Finance being the major constraint for consumers to purchase electric vehicles, financial institutions like banks, NBFCs and SFBs have framed their own financial policies where the loan-to-value ratio, interest rate and tenure of loan to be paid differ for each segment of electric vehicle. The study gives an analysis of the financial policy framed by financial institutions for consumers to purchase electric vehicles. The study showed that financial institutions distribute higher amount of loan for commercial purpose vehicles and charge lower interest for personal purpose electric vehicles. It also showed that banks offer better financial benefits for electric four-wheelers when purchased for personal and commercial purposes. When NBFCs are considered, for electric four-wheelers better finance benefits are proceeded for personal usage and for electric buses better financial benefits are given for commercial usage compared to its alternative segments. When SFBs are considered, for electric two-wheelers better finance options are granted for personal purposes and no finance is granted to electric vehicles for the purpose of commercial usage.

### **INTRODUCTION**

Electric vehicles are predominantly playing a vital role in the present automobile sector. They are known for their active contribution in preserving the environment and in releasing zero emission. It is very interesting to see people shifting demand from conventional vehicle to electric vehicles. Electric vehicle sector is a developing one yet to reach its potential and there is a need for a standard policy to govern this sector. FAME India Scheme, India's apex body

for governing the electric vehicle sector was initiated in the year 2015 which issues guidelines and offers financial support to consumers, Original Equipment Manufacturers (OEMs) and suppliers to influence the same. Finance has been a major hindrance for consumers to purchase electric vehicles. Government and financial institutions are actively engaged in distributing finance for consumers to purchase electric vehicles at an affordable cost.

Financial institutions like banks, Non-Banking Financial Companies (NBFCs) and Small Finance Banks (SFBs) are offering loan to motivate people to purchase electric vehicles. The financial benefit to be offered is determined by considering loan-to-value (LTV) rate, rate of interest charged and the repayment period. The study provides an analysis on financial policies framed by various financial institutions for consumers to purchase electric vehicles.

### **STATEMENT OF THE PROBLEM**

Electric vehicle sector being a new entrant in the automobile sector needs immense support from Government for development of the same. A separate policy is required to encourage usage of electric vehicles, to monitor and govern activities, setting up requirements and standards of manufacturing, receive financial support, formulating battery standards and chemistry and specification criteria.

Government of India has introduced several initiatives like Faster Adoption and Manufacturing of (Hybrid and) Electric Vehicles (FAME), National Electric Mobility Mission Plan 2020 (NEMMP), Accelerated e-Mobility Revolution for India's Transportation (e-AMRIT), Section 80 EEB of Income Tax Act and Green Finance Scheme by Reserve Bank of India which have motivated consumers into purchasing electric vehicles by considering the benefits and Government's support.

Central Government and State Governments in India have been developing financial policies to make electric vehicles affordable for consumers and are offering financial support through financial institutions like banks, Non-Banking Financial Companies (NBFCs) and Small Finance Banks (SFBs). This study analyses the financial policy framed by financial institutions for consumers to purchase electric vehicles.

### **OBJECTIVES OF THE STUDY**

1. To study the financial policy framed by financial institutions for consumers for purchase of electric vehicles.

2. To study the interest rate, loan-to-value (LTV) per cent and tenure of loan offered by financial institutions to consumers for purchase of electric vehicles.

## METHODOLOGY

Statistical tools used for analysis were Mean, Maximum and Minimum which were determined using Statistical Package for Social Sciences (SPSS).

## FINANCIAL POLICY

Government of India under Phase II of Faster Adoption and Manufacturing of (Hybrid and) Electric Vehicles (FAME) India Scheme has allocated ₹ 10,000 crores for a tenure of 3 years from 1<sup>st</sup> April 2019. Around 86 per cent of the budgeted fund has been distributed as demand incentive to stimulate demand among consumers. The Phase is focused on creating a demand for 10 lakh electric two-wheelers, 5 lakh electric three-wheelers, 55,000 electric four wheelers and 7,000 electric buses. The incentivisation is given higher priority for commercial purposed vehicles and those used for public transportation.

Accelerated e-Mobility Revolution for India's Transportation (e-AMRIT) under National Institution for Transforming India Aayog (NITI Aayog) has listed several financing options granted by financial institutions like banks, Non-Banking Financial Companies (NBFCs) and Small Finance Banks (SFBs) for various segments of electric vehicles based on its purpose of usage. It shows the range at which rate of interest is charged and percentage of loan-to-value (LTV) offered.

## ANALYSIS AND INTERPRETATION

**Table 1.1 - Financial support offered by banks for personal purpose electric vehicles**

Parameter	Electric two-wheelers	Electric four-wheelers	Electric three-wheelers and e-buses
Interest rate	12 to 18%	6.5 to 11%	-
Loan-to-value (LTV) ratio	60 to 80 %	90 to 95 %	-

**Source: Primary data**

Range of interest charged for electric four-wheelers for loan offered by banks for personal purpose is the lowest between 6.5 and 11 per cent compared to electric two-wheelers which is between 12 to 18 per cent.

Electric four-wheelers are provided at the best loan-to-value (LTV) ratio highest between 90 to 95 per cent of the vehicle value as loan compared to electric two-wheelers for which the range is between 60 and 80 per cent.

For electric three-wheelers and electric buses, loan for personal purposes is not offered by banks.

**Table 1.2 - Financial support offered by banks for commercial purpose electric vehicles**

Parameter	Electric two-wheeler	Electric three-wheelers	Electric four-wheelers	E-buses
Interest rate	13 to 20 %	15 to 21%	8.5 to 13 %	9 to 12 %
Loan-to-value (LTV) ratio	70 to 90 %	70 to 90 %	90 to 95 %	75 to 85 %

**Source: Primary data**

Range of interest charged for electric four-wheelers and electric buses for loan granted by banks for commercial use (8.5 to 13 per cent and 9 to 12 per cent) are lower compared to electric two-wheelers and three-wheelers.

Electric four-wheelers are offered the best loan-to-value (LTV) ratio of 90 to 95 per cent of the vehicle value as loan compared to its alternative segments.

**Table 1.3 - Financial support offered by NBFCs for personal purpose electric vehicles**

Parameter	Electric two-wheeler	Electric three-wheelers	Electric four-wheelers	E-buses
Interest rate	15 to 25 %	-	12 to 18 %	-
Loan-to-value (LTV) ratio	60 to 80 %	-	85 to 90 %	-

**Source: e-AMRIT**

Range of interest charged for electric four-wheelers for loan granted by NBFCs for personal use are better (12 - 18 per cent which is lower) compared to electric two-wheelers for which it is between 15 to 25 per cent.

For electric four-wheelers, loans are offered with the best loan-to-value (LTV) rate by distributing 85 to 90 per cent of the vehicle value as loan compared to electric two-wheelers for which it is only between 60 to 80 per cent.

NBFCs do not offer personal purpose loan for electric three-wheelers and electric buses.

**Table 1.4 - Financial support offered by NBFCs for commercial purpose electric vehicles**

Parameter	Electric two-wheeler	Electric three-wheelers	Electric four-wheelers	E-buses
Interest rate	15 to 25 %	18 to 33%	12 to 18 %	12 to 15 %
Loan-to-value (LTV) ratio	70 to 90 %	60 to 90 %	85 to 90 %	75 to 85 %

Source: e-AMRIT

Range of interest charged for electric buses for loan granted by NBFCs for commercial purpose are economical (rate being 12 to 15 per cent) compared to all other electric vehicles. For electric three-wheelers, interest is charged at the highest among all vehicles i.e., 18 to 33 per cent.

Electric four-wheelers are offered the best loan-to-value (LTV) rate by distributing 85 to 90 per cent of the vehicle value as loan; the lowest being for electric three-wheelers is between 60 to 80 per cent.

**Table 1.5 - Financial support offered by SFBs for personal purpose electric vehicles**

Parameter	Electric two-wheeler	Electric three-wheelers	Electric four-wheelers	E-buses
Interest rate	16 to 28 %	20 to 25%	-	-
Loan-to-value (LTV) ratio	Up to 95 %	Up to 80 %	-	-

Source: e-AMRIT

Range of interest charged for electric two-wheelers and three-wheelers by SFBs for personal purpose are more or less within the same range between 16 to 28 per cent.

For electric two-wheelers, loans are offered at the best loan-to-value (LTV) rate by distributing up to 95 per cent of the vehicle value as loan whereas it is only up to 80 per cent of the value for electric three-wheelers.

For electric four-wheelers and buses, loans are not offered by SFBs for personal purposes.

For electric two-wheelers, three-wheelers, four-wheelers and buses, loans are not granted by SFBs for the purpose of commercial use.

**Table 1.6 - Value of loan (LTV) offered by financial institutions - Test statistics**

Financial institution	Purpose of use	Mean	Minimum	Maximum
Banks	Personal	87.5%	80%	95%
	Commercial	90%	85%	95%
NBFCs	Personal	85%	80%	90%
	Commercial	90%	85%	95%
SFBs	Personal	92.5%	90%	95%
	Commercial	-	-	-

Banks and NBFCs offer a minimum loan of 80 per cent for personal use and loan of 85 per cent for commercial usage whereas SFBs offer 90 per cent as its minimum loan. A maximum loan of 95 per cent is granted by banks for both personal and commercial purposes, by NBFCs for commercial use and by SFBs for personal purpose excluding NBFCs granting personal purpose loan up to 90 per cent.

On an average, banks and NBFCs offer a loan value of 90 per cent of the vehicle value for commercial purposes. Banks and NBFCs offer loan more or less within a same rate i.e., 85 and 87.5 per cent and SFBs grant 92.5 per cent of the vehicle value for personal purposes.

Thus, electric vehicles are offered better benefits to satisfy their commercial or business needs by distributing higher loan-to-value ratio for consumers.

**Table 1.7 - Interest charged on loan by financial institutions - Test statistics**

Financial institution	Purpose of use	Mean	Minimum	Maximum
Banks	Personal	14.5%	11%	18%
	Commercial	16.5%	12%	21%
NBFCs	Personal	19%	18%	20%
	Commercial	22.75%	15%	33%
SFBs	Personal	30.5%	28%	33%
	Commercial	-	-	-

On an average, banks charge lesser interest of 14.5 per cent and 16.5 per cent compared to NBFCs (19 per cent and 22.75 per cent) and SFBs (30.5 per cent) for loan granted on personal and commercial purposes.

- Banks charge a minimum interest of 11 per cent for personal use and a rate of 12 per cent for commercial purpose. A maximum rate of 18 per cent is charged for personal loan and 21 per cent for commercial loan.

- NBFCs charge a minimum interest of 15 per cent for commercial use and 18 per cent for personal use. A maximum rate of 33 per cent for commercial purpose and 20 per cent for personal purpose is charged.
- SFBs offer at a minimum interest of 28 per cent and a maximum rate of 33 per cent for personal purposes.

Thus, electric vehicles are charged economically to satisfy their personal needs by distributing at a lower interest rate to consumers.

## **FINDINGS**

1. Electric four-wheelers are offered higher loan-to-value rate (LTV) by banks compared with other electric vehicles for the purpose of personal and commercial use. Range of interest for electric four-wheelers are economical for personal use and together with electric buses for commercial purpose.
2. Electric four-wheelers are granted the best loan-to-value (LTV) rate by NBFCs for both personal and commercial purposes. Range of interest for electric buses are cheaper for commercial use and electric four-wheelers for personal use.
3. Electric two-wheelers are provided the highest loan-to-value (LTV) rate by SFBs for personal purpose. Interest for electric two-wheelers and three-wheelers are within the same range. Loans are not granted by SFBs for commercial purposes.
4. Electric vehicles are offered better support by financial institutions to satisfy their commercial or business needs for distributing higher loan-to-value (LTV) ratio.
5. Electric vehicles are charged economical interest by financial institutions to satisfy their personal needs for distributing loan at a lower range of interest to consumers.

## **SUGGESTIONS**

1. Banks may reduce the rate of interest and increase LTV offered for electric two-wheelers to enhance usage of cleaner transportation by larger group of people.
2. NBFCs can contribute higher loan for personally used electric two-wheelers to help consumers purchase the vehicle at an affordable cost.
3. Reserve Bank of India can distribute a substantial portion of their funds to Small Finance Banks (SFBs) to encourage investment in commercial electric vehicles.
4. Higher loan-to-value (LTV) may be offered to consumers who prefer electric vehicle for personal purposes.

## CONCLUSION

Electric vehicles in the automobile market have made a significant contribution towards development of an eco-friendly environment. Though banks and NBFCs have stepped forward in distributing finance for creating a sustainable environment, majority of the consumers in India prefer having electric two-wheelers to tackle traffic problem and save money. Financial institutions offer financial benefits mostly for electric four-wheelers and electric buses which are basically used for commercial purposes. Despite electric two-wheelers being granted loan, they are issued at a higher interest rate and an average loan-to-value ratio discouraging consumers to purchase electric two-wheelers. Commercial purpose electric vehicles are distributed cheaper finance making it highly affordable. Electric vehicles are yet to reach the attention of people as there is prevalence of resale risk which restricts banks to offer cheaper finance.

Electric vehicles are offered better financial opportunities by receiving higher loan-to-value ratio for commercial purposes and charging economical interest for personal purposes, opening up an opportunity for Governments and private players to meet cleaner transport needs of the nation. Public transportation when fully electrified, becomes easier for the Government to create sustainable environment and save huge amount of cost in the long-run by spending lesser amount as running and maintenance cost. Reserve Bank of India under its Priority Sector Lending (PSL) can grant status for electric vehicle sector to ensure financial institutions initiate investments in the sector and offer constant financial support to consumers. Currently, SFBs are not lending commercial sector electric vehicles but as time goes, it is expected to give an entry into the same. On the other hand, NBFCs should take action to provide cheaper finance to consumers for purchasing electric two-wheelers. At present, electric two-wheelers are highly preferred by consumers and soon majority of the population may be travelling by electric two-wheelers in the upcoming years due to the actions taken by the Government of India.

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## **A STUDY ON EMPLOYEES SATISFACTION TOWARDS ONLINE FOOD DELIVERY COMPANIES IN COIMBATORE**

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### **ABSTRACT**

“A happy employee is a productive employee” is a quote which says that this can be achieved by satisfying the employees. Employee satisfaction is a factor in motivation, retention and goal achievement in the place of work and commitment is a factor that include no excess work load, treating employee with respect, provide recognition & rewards, fringe benefits and positive management. The main purpose of the study is to identify the satisfaction level of employees towards online food delivery service companies in the Coimbatore as it is necessary to know the employee’s satisfaction of delivery companies since delivery becomes predominant role after Covid 19. The evolution of technology and change of lifestyle has led to the prodigious growth of the food delivery services in the recent times. Food delivery fostered through digital applications play a vital role in food industry. Food ordering through online is the way of ordering customers preferred food by using website of the restaurant or food delivery apps. One out of every four customer makes use of food ordering app in their mobile which was revealed in recent study. And it has been concluded that the employees are not satisfied with their job timings, salary etc. companies can make various polices and measures to improve the satisfaction level of employees so that their socio-economic conditions will also get improved.

**KEYWORDS:** food delivery, online, employee satisfaction

### **INTRODUCTION**

Online food delivery platforms are expanding choice and convenience along with great deals and discounts, allowing customers to order from a wide array of restaurants with a single tap of their mobile phone. Food delivery has become a business on its own with various online platforms competing to secure a market share. Although these online

platforms attract huge investment and high valuation, they are transforming the business of food delivery.

The most common type of food delivery has always been the traditional restaurant model. Under this model, a customer walks into a restaurant and places their order. They then wait for the restaurant to meet the order and bring the food at their table or at the checkout center. Instead of going to the restaurant, customers are now placing their orders via restaurant apps and websites. As a result, the food delivery business is fast catching up across markets of America, Asia, Europe, and the Middle East.

In the midst of the global 2020 COVID-19 outbreak, the advantages of online food delivery (FD) were obvious as it facilitated consumer access to prepared meals and enabled food providers to keep operating. Using the three pillars of sustainability as a lens through which to consider the impacts, this review presents the most up-to-date research in this field revealing a raft of positive and negative impacts. From an economic standpoint, online FD while providing job and sale opportunities has been criticized for high commissions it charges restaurants and questionable working conditions for delivery people.

While some do it themselves through independent platforms, there has been a significant increase in third-party platforms like Uber Eats and Delivery Hero. Hybrid delivery platforms are also eating part of the market share, transforming how ordered food is delivered. For their part, restaurant's assure transparency and convenience in their services. Once the order had been placed online, the restaurant fulfills it by ensuring the food is delivered to the customer's home. To deliver the foods employees play an important role. They are the backbone of the delivery companies. The study covers about the satisfaction of employees working in online food delivery companies like Swiggy, zomato and Uber Eats in the Coimbatore city.

### **OBJECTIVE OF THE STUDY**

- To analyze the employees job satisfaction of food delivery companies in Coimbatore.

### **RESEARCH METHODOLOGY**

This study is based on empirical research by conduction survey method. It is purely primary data based on primary data from 29 respondents following convenience sampling method and

percentage analysis has been made. A well-structured questionnaire was administered to analyze the employee's satisfaction towards the online food delivery companies in Coimbatore.

## ANALYSIS AND INTERPRETATION

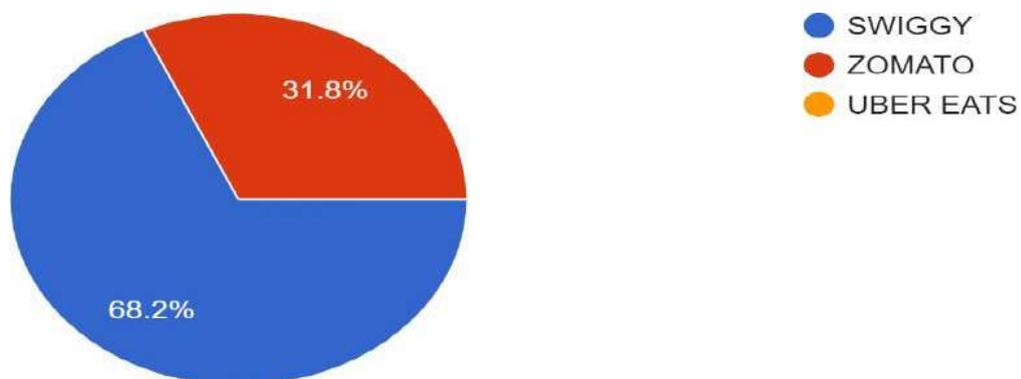
**TABLE 1**

**EMPLOYEES PREFERANCE TOWARDS ONLINE FOOD DELIVERY COMPANIES**

Regarding company preference	No of respondents	Percentage
Swiggy	21	72.4%
Zomato	7	24.1%
Uber Eats	1	3.4%
<b>Total</b>	<b>29</b>	<b>100%</b>

### Interpretation:

The above shows that 72.4% of the respondents has preferred towards Swiggy category, 24.1% of the respondents has preferred Zomato category and 3.4% of the respondents has preferred Uber Eats. Majority of the respondents belong to 72.4%.



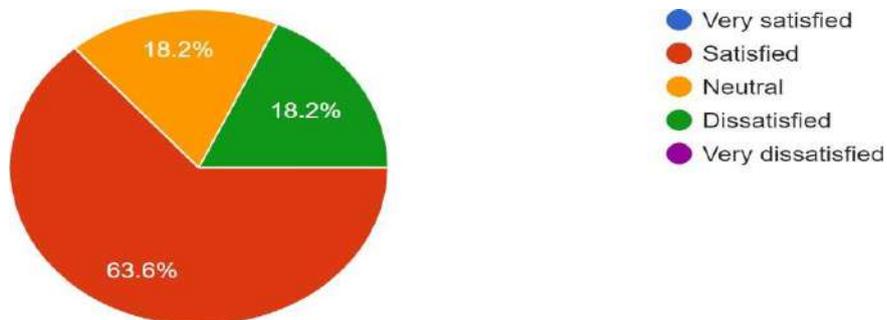
**TABLE 2**  
**EMPLOYEE SATISFACTION ON SALARY**

Regarding Satisfaction on Salary	No. of Respondents	Percentage
Very Satisfied	1	3.4%
Satisfied	19	65.5%
Neutral	5	17.2%
Dissatisfied	4	13.8%
Very Dissatisfied	-	-
TOTAL	29	100%

**Interpretation:**

The above table shows that 3.4% of the respondents belong to very satisfied category, 65.5% of the respondents belong to satisfied category, 17.2% of the respondents belong to neutral category and 13.8% of the respondents belong to dissatisfied category.

Majority of the respondents belong to **(65.5%)**.



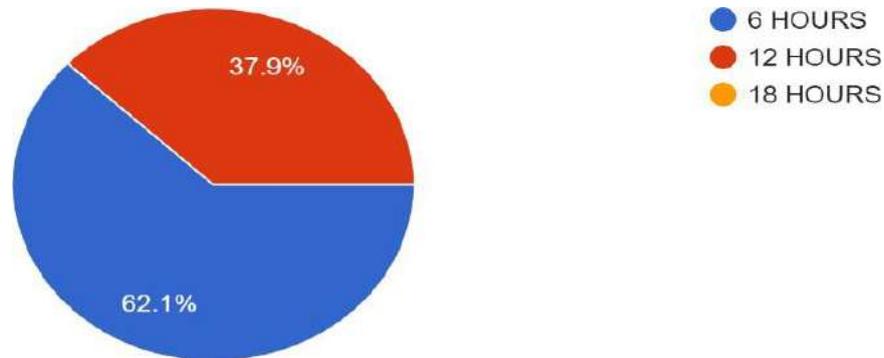
**TABLE 3**

## EMPLOYEE SATISFACTION ON DURATION OF WORK

Regarding Duration of Work	No. of Respondents	Percentage
6	18	62.1%
12	11	37.9%
18	-	-
TOTAL	29	100%

## Interpretation

The above table shows that 62.1% of the respondents prefer 6 hours category and 37.9% of the respondents prefer 12 hours category.



## CONCLUSION

It is concluded that the food delivering employees were not satisfied by the needs provided by the company. The employees were not satisfied with the salaries that they received. Thus, the satisfaction of the employees can be increased by giving more salaries. It will create a good image in the society also. And the employees are very much stressed about their job timings since its very lengthy and inflexible. Finally, the study concluded that the employees of Food Delivery Companies in Coimbatore were not satisfied with their work in the terms of salary, job timings.

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## SECURED DATA STORAGE IN CLOUD USING ENCRYPTION ALGORITHM

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### **ABSTRACT:-**

Cloud Computing (CC) is denoted as web-based computing that offers devices or users a shared pool of information, resources, or software. It permits small companies and end-users for making the use of different computational resources such as software, storage, and processing ability offered via other companies. But the main problem in CC is data security because of malware and attacks. Nowadays, enhancing data security in cloud is a main concern and solution is to use encryption schemes or algorithms AES (advanced encryption standard) algorithm, SHA (secure hashing function) and mainly purpose of using these algorithms is to store or secure more data in cloud.

**KEYWORDS:** Cloud Storage, Data security, cryptography, RSA, AES

### **INTRODUCTION**

Cloud computing is the concept implemented to remedy the Daily Computing Problems. Cloud computing is basically virtual pool of resources and it provides these resources to users via internet. It provides IT services as on-demand services, accessible from anywhere, anytime and by authorized user. It offers a range of services for end users; among which there's Storage as a service. Storage as a service (SaaS) is a Cloud business model in which a service provider rents space in its storage infrastructure to individuals or companies. The data stored in the cloud can be sensitive to the business. The problematic is that these data are likely to be exploited by the provider or other unauthorized persons. Currently, most of cloud storage users protect their data with SLAs contracts and are based on the trust and reputation of the provider. This weakness has motivated us to think about solutions that enable users to secure their data to prevent malicious use.

In recent years, SaaS in Cloud gained popularity among both companies and private users. It allows the end-user to take advantage of the maximum computing capability with minimum hardware requirement. However, data privacy, security, reliability and interoperability issues still have to be adequately solved. But the most important problem is security and how cloud provider assures it. Data security in cloud storage is a major obstacle limiting its spread. There are various opinions on the security of cloud computing with pros and cons .Our contribution aims to provide a solution that ensures the storage of data securely in the cloud. The data must be encrypted before sending them to the cloud. We used the symmetric encryption algorithm AES in order to benefit from its advantages in terms of robustness and speed. The AES key will be encrypted by the asymmetric encryption algorithm RSA and will be stored in a private server away of the cloud. The integrity and confidentiality of the data is ensured by providing access to the data only on successful authentications (authentication in cloud and authentication in private server). The authorized user can also download the file and read it on the system. This hybrid model that we have proposed allows to secure the data and to enhance the resistance to attacks.

## **1. ABOUT CLOUD COMPUTING**

### **2.1 DEFINITION**

Cloud Computing is an important concept in computer development in recent years. This concept refers to the use of computing capacity and storage of computers and servers in the world over the Internet. Cloud services allow individuals and businesses to use software and hardware that are managed by third parties at remote locations. Examples of cloud services include online file storage, social networking sites, web-mail, and online business applications. Cloud computing provides a shared pool of resources, including data storage space, networks, computer processing power, and specialized corporate and user applications.

### **2.2 ESSENTIAL CHARACTERISTICS**

Cloud model promotes availability and is composed of five essential characteristics:

- **On-demand self-service:** A consumer can unilaterally provision computing capabilities, such as email, applications, and network or server service, as needed automatically without requiring human interaction with each service provider.
- **Broad network access:** Capabilities are available over the network and accessed through standard mechanisms that promote use by heterogeneous thin or thick client platforms (e.g., mobile phones, tablets, laptops, and work-stations).
- **Resource pooling:** The provider's computing resources are pooled to serve multiple consumers using a multi-tenant model, with different physical and virtual resources dynamically assigned and reassigned according to consumer demand. Examples of resources include storage, processing, memory, and network bandwidth.

## 2.3 LAYERS OF CLOUD COMPUTING

There are different layers of cloud services that refer to different types of service model, each offering discrete capabilities. Apart from management and administration, the major layers are:

### Infrastructure as a Service (IaaS)

Infrastructure as a service delivers computing resources as a service, servers, network devices, and storage disks are made available to organizations as services on a need-to-basis. Virtualization, allows IaaS providers to offer almost unlimited instances of servers to clients, while making cost-effective use of the hosting hardware. Companies can use IaaS to build new versions of applications or environments without having to invest in physical IT assets. Some cloud solutions also rely solely on this layer like the Amazon's product EC2, Amazon S3.

### Platform as a Service (PaaS)

This layer provides a platform for creating applications. PaaS solutions are essentially development platforms for which the development tool itself is hosted in the Cloud

and accessed through internet. With PaaS, developers can build Web applications without installing any tools on their computers and then deploy those applications without any specialized systems administration skills.

Examples include Google App Engine, Force.com and Microsoft Azure.

#### Software as a Service (SaaS)

This layer includes applications that run off the Cloud and are available on demand to Web and paid for on a peruse basis, anytime-anywhere basis. There is no need to install and run the special software on your computer if you use the SaaS. The concept of SaaS is attractive and some software runs well as cloud computing, but the delay of network is fatal to real time or half real time applications such as 3D online game. Examples include online word processing and spreadsheet tools, customer relationship management (CRM) services and web content delivery services (SalesforceCRM, Google Docs, etc.)

### 2.4 Cloud deployments models

#### Private cloud

Private cloud is a new term that some vendors have recently used to describe offerings that emulate cloud computing on private networks. It is set up within an organization's internal enterprise data center. In the private cloud, scalable resources and virtual applications provided by the cloud vendor are pooled together and available for cloud users to share and use. Only the organization and designated stakeholders may have access to operate on a specific Private cloud.

#### Public cloud

A public cloud is a model which allows users access to the services and infrastructure and are provided off-site over the Internet. It's typically based on a pay-per-use model, similar to a prepaid electricity metering system which is flexible enough to cater for spikes in demand for cloud optimization. Public clouds are managed by third parties or vendors over the Internet. Public clouds are less secure than the other cloud models because it places an additional burden of ensuring all applications and data accessed on the public cloud are not subjected to malicious attacks. However, security and governance issues must be well planned and ample security controls was put in place.

### Hybrid cloud

A new concept combining resources from both internal and external providers will become the most popular choice for enterprises. A hybrid cloud is a combination of public and private cloud models that tries to address the limitations of each approach. In a hybrid cloud, part of the service infrastructure runs in private clouds while the remaining part runs in public clouds. Hybrid clouds offer more flexibility than both public and private clouds. Specifically, they provide tighter control and security over application data compared to public clouds, while still facilitating on-demand service expansion and contraction. On the down side, designing a hybrid cloud requires carefully determining the best split between public and private cloud components.

### Community Cloud

This model is rarely offered the infrastructure is shared by several organizations for a shared cause and may be managed internally or a third party service provider. It brings together, in general, the structures with same interest (mostly security) and may even be in the same field of activity

## 2. SECURITY

Security in cloud computing involves concepts such as network security, equipment and control strategies deployed to protect data, applications and infrastructure associated with cloud computing. An important aspect of cloud is the notion of interconnection with various materials which makes it difficult and necessary securing these environments. Security issues in a cloud platform can lead to economic loss, also a bad reputation if the platform is oriented large public and are the cause behind the massive adoption of this new solution. The data stored in the cloud for customers represents vital information. This is why the infringement of such data by an unauthorized third party is unacceptable. There are two ways to attack data in Cloud. One is outsider attack and the other is insider attack. The insider is an administrator who can have the possibility to hack the user's data. The insider attack is very difficult to be identified. So the users should be very careful while storing their data in cloud storage. Hence, the need to think of methods that impede the use of data even though the data is accessed by the third party, he shouldn't get the actual data. So, all the data

must be encrypted before it is transmitted to the cloud storage .Security allows the confidentiality, integrity, authenticity and availability of information. The development of technologies and their standardization makes available a set of algorithms and protocols for responding to these issues.

### 3.1 ASYMMETRIC ENCRYPTION

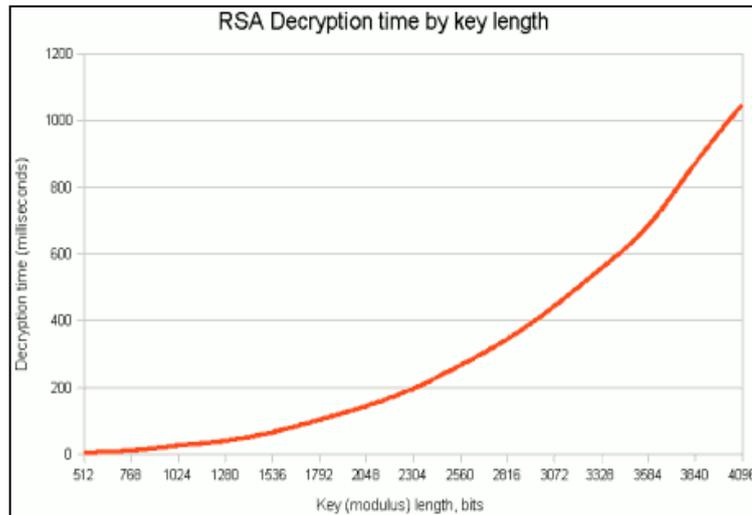
Asymmetric cryptography is a class of cryptography algorithms which requires two separate keys, one of which is secret (or private) and one of which is public. Although different, the two parts of this key pair are mathematically linked. The public key is used to encrypt plain text or to verify a digital signature; whereas the private key is used to decrypt cipher text or to create a digital signature. In our paper we used RSA algorithm through its robustness.

#### 3.1.1 RSA ALGORITHM

The most common Public Key algorithm is RSA, named for its inventors Rivest, Shamir, and Adelman of MIT. RSA is basically an asymmetric encryption/decryption algorithm. Public key distributed to all through which one can encrypt the message and private key which is used for decryption is kept secret and is not shared to every- one. It based on exponentiation in a finite field over integers modulo a prime numbers.

RSA uses Euler's Theorem:  $a^{\Phi(n)} \text{ mod}(n) = 1$  where  $\text{gcd}(a,n)=1$  in RSA we have to initially calculate  $n=p.q$  such that  $\Phi(n)=(p-1)(q-1)$  one has to carefully chose  $e$  and  $d$  to be inverses  $\text{mod } \phi(n)$ .

To encrypt a message  $M$  we have to obtain public key of recipient  $Pu=\{n,e\}$  to calculate the cipher:  $C=M^e \text{ mod}(n)$ , where  $0 \leq M < n$ . It is important that the message  $M$  must be smaller than the modulus  $n$ . Similarly for decryption the recipient uses their private key  $Pr=\{n,d\}$  and computes:  $M=c^d \text{ mod}(n)$ .



RSA decryption time by key length

## 3.2 SYMMETRIC ENCRYPTION

Symmetric-key algorithms are a class of algorithms for cryptography that use the same cryptography keys for both encryption of plain text and decryption of cipher text. The keys may be identical or there may be a simple transformation to go between the two keys. The keys, in practice, represent a shared secret between two or more parties that can be used to maintain a private information link. This requirement that both parties have access to the secret key is one of the main drawbacks of symmetric key encryption, in comparison to public-key encryption.

### 3.2.1 AES ALGORITHM

AES is a variant of Rijndael which has a fixed block size of 128 bits, and a key size of 128, 192, or 256 bits. The key size used for an AES cipher specifies the number of repetitions of transformations rounds. The number of cycles of repetition is as follows (see fig 2):

- 10 cycles of repetition for 128-bit keys.
- 12 cycles of repetition for 192-bit keys.
- 14 cycles of repetition for 256-bit keys.

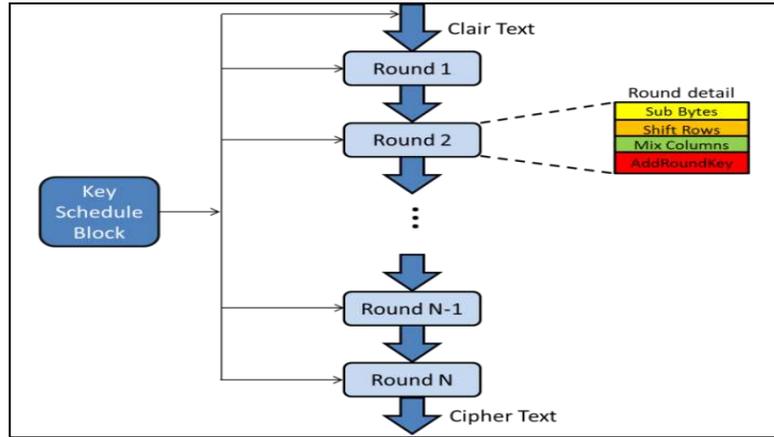
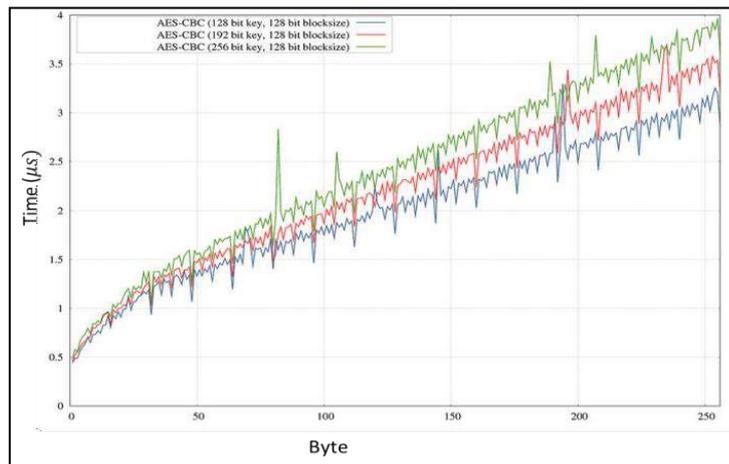


Illustration of the AES Algorithm

The advantages of AES are many. AES is not susceptible to any attack but Brute Force attack. However, Brute Force attack is not an easy job even for a super computer. This is because the encryption key size used by AES algorithm is of the order 128, 192 or 256 bits which results in billions of permutations and combinations. High speed and low RAM requirements were criteria of the AES selection process. Thus AES performs well on a wide variety of hardware; from 8-bit smart cards to high-performance computers. AES is also much faster than the traditional algorithms; therefore in our work AES is adopted. Recently Compact AES S-box is developed to



be more efficient .

AES speed at 128, 192 and 256-bit key sizes

### 3. CONCLUSION

Although Cloud storage has many advantages, there are still many actual problems concerning security that need to be solved. If we can eliminate or master this weakness of security, the future is going to be Cloud storage solutions for large as well as small companies. In this paper, we have suggested a solution that allows storage of data in an open cloud. Data security is provided by implementing our algorithm. Only the authorized user can access the data. Even if an intruder (unauthorized user) gets the data accidentally or intentionally, he can't decrypt it and needs two keys coming from two different locations.

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# **ANALYSIS AND DETECTION OF DISTRIBUTED DENIAL OF SERVICE IN SECURED SOFTWARE DEFINED NETWORKS IN INDUSTRY**

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## **ABSTRACT**

Technological innovation in industry revolution rapidly change. Internet of Things has vital role for the development of secure software defined network architecture. In an online interactive environment fundamental standard is used for interoperable protocol for configuring the address and also associated with security and privacy issues.

## **INTRODUCTION TO NETWORKING**

The term 'Network' is defined as connecting two or more computers together to share the data and resources (such as hardware, software) among them. The main advantage of the Network Technology is, to communicate with many people through wired or wireless medium. Based on the size and area of the network, it is divided into three basic types. They are Local Area Networking (LAN), Metropolitan Area Networking (MAN), and Wide Area Networking (WAN) It is also known as 'Internet'. Nowadays without 'Internet' we can't live. This Internet Technology is implemented with the things called 'Internet of Things' (IoT). IoT is a developing technique. It is associated with tremendous for trading the data and number of frameworks used in online environment. Here. we can operate the Fan, Light, Car through our mobile phones. In this way the Network technology is rapidly changing, and gives more benefits to the users. But now the users have started to realize the limitations of the new Network Technology with respect to the security issues. In Network, the term security refers to protecting the data from the unauthorized users. So, security is the biggest challenge among the new network builders. To overcome the security issues in the network technology, many solutions are also developed by the developers. Here the architecture of the Network model plays a vital role in the security related issues.

## RESEARCH OBJECTIVES

The main aim and objective of this research work is to detect the DDoS attack in the SDN combined with the Edge computing. In view of the above, following objectives are set in the proposed research work.

- To create different topology (star, tree, mesh) in the SDN architecture.
- To initiate the network traffic by sending files as packets to different hosts in the SDN architecture.
- The packets size increased by sending various types of files in the architecture, here text and image files are sent in a packet.
- These files are encrypted before sending to the controller with simple encryption technique.
- To attack the controller from multiple hosts by sending the numerous packets to the controller to slow down its process temporarily or permanently
- To implement the proposed algorithms in Mininet and to analyse the performance for various metrics.

## DESCRIPTION OF AREA

Last few years tremendous change due to successive technological developments and innovations. The Industry 4.0 (fourth industrial revolution) by various applications and services. Multiple devices can be interconnected for its operations. Industry 4.0 can be regarded as a highly integrated, digitalized, automated etc., and efficient manufacturing environment. Industry 4.0 is driven by the following four technological clusters:

- 1) data, computational power and connectivity,
- 2) analytics and intelligence,
- 3) human-machine interaction and
- 4) digital-to-physical conversion

Additionally, they stated that 1) the digitalization and integration of vertical and horizontal value chains, 2) the digitalization of product and service offerings and 3) the digital business models and customer access

## **INDUSTRIAL INTERNET OF THINGS (IIOT):**

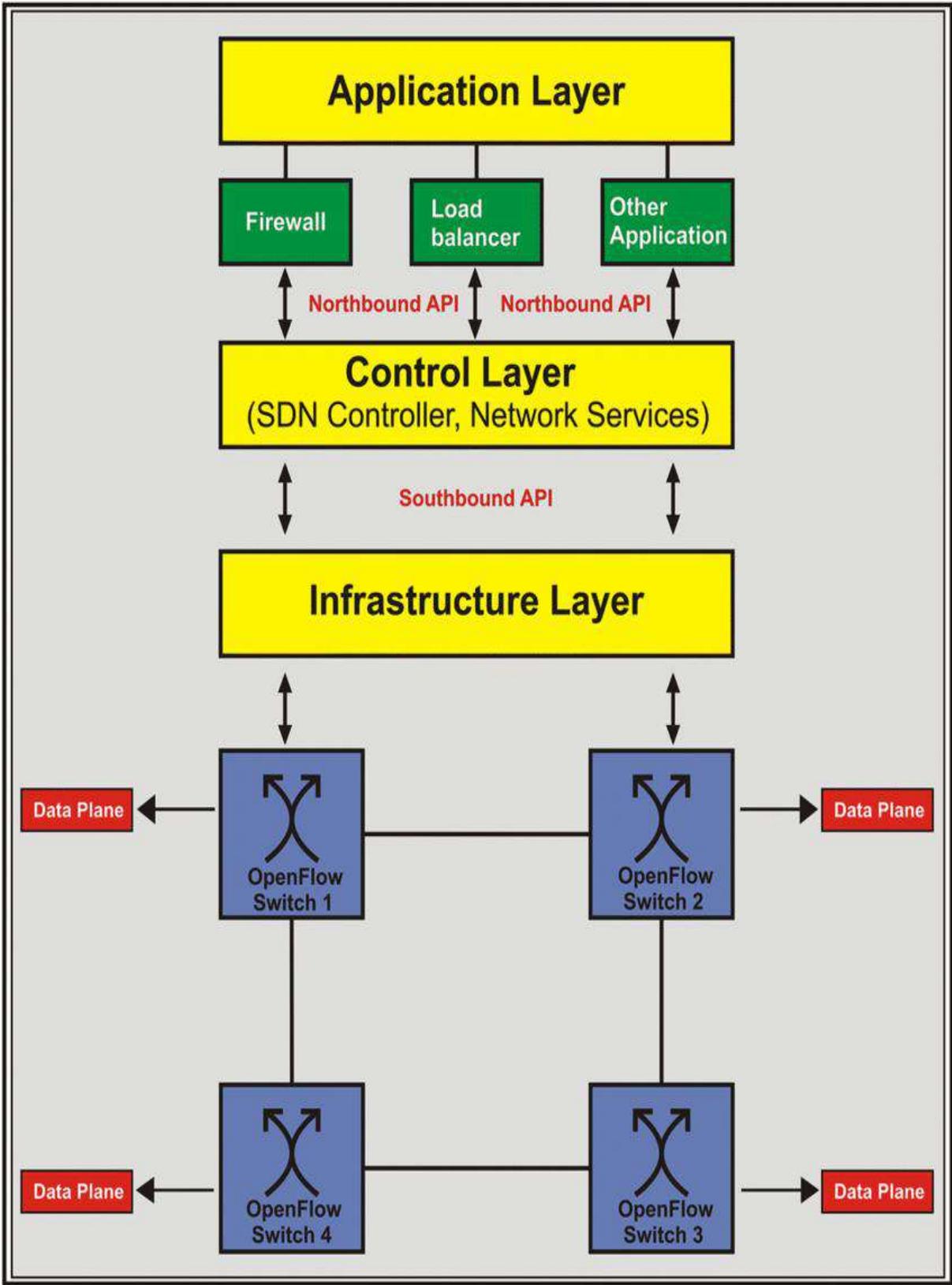
The main aim of IIoT is that ,it is the category of IoT which focuses on its applications and use cases in modern industries and intelligent manufacturing. IIoT, which is used in the context of Industry 4.0, can be considered to be a more complex system of diverse systems and devices Through the use of appropriate services, networking technologies, applications, sensors, software, middleware and storage systems, IIoT provides solutions and functions which develop insight and improve the potential and capability of monitoring and controlling enterprises processes and assets. IIoT services and applications provide an important role in solutions for more effective scheduling, planning and controlling of manufacturing operations and systems .Here various devices are interconnected and they are able to communicate and interact with each other with centralized controllers, IIoT will decentralize analytics and decision-making, thus rendering real-time responses and reactions feasible. The final outcome is the overall availability and maintainability of enterprises is enhanced, their operational efficiency and improve productivity .Also their product time-to-market is decreased and by reducing their overall operational efficiency is optimized.

- 1.Availability, reliability, mobility and other QoS criteria;
2. Security, privacy and confidentiality of data;
3. Interoperability and scalability;
4. Fault tolerance and functionality safety;
5. Management of operations, resources, energy and data;
6. Networking addressing and identification;
7. Architecture, protocols and standardization activities

## **GAPS OF THE STUDY**

The work discussed provides different methods for industry development and there are some security issues .For implementing new technique cost is very high.In an online interactive environment it is difficult to implement and data loss is an important factor. Interoperability is the major issue and no efficient parameters are to develop .

## **SDN Architecture**



## CONCLUSION

IoT is an innovative and rapidly growing technology which offers various novel applications, services and solutions and links the physical to the digital world. It also allows people and “things” to be connected anytime, anywhere, with anything and with anyone ideally using any path/network and any service. This study summarises the overview of the Traditional network architecture and compares it with the new SDN architecture. It also gives the idea about the Network security and the key issues related to network threats. The problem of the research work, the motivation and justification to do this work is presented.

## **AN EMPIRICAL STUDY OF CRM IN NON-BANKING FINANCIAL INSTITUTIONS WITH SPECIAL REFERENCE TO KANYAKUMARI DISTRICT, TAMILNADU**

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### **ABSTRACT**

The purpose of this study was to examine the various facets of customer relationship management practices adopted by NBFCs in Kanyakumari District of Tamilnadu. The research design in this study will consist of exploratory research whereby different aspects with regards to CRM in the NBFCs In Kanyakumari District of Tamilnadu have been extracted from existing studies and tested on a sample of customers. This study examined demographic profile of customers, customer awareness on CRM policies, customer perception on CRM practices, and role of E-CRM measures of NBFCs In Kanyakumari District of Tamilnadu in customer satisfaction. This study utilized 100 samples in various branches in NBFCs in Kanyakumari District of Tamilnadu. The data for the study have been collected through questionnaire. The statistical tools like simple percentage, chi-square, t-test, was used in this study. This study revealed that the customer relationship management practices followed in NBFCs In Kanyakumari District of Tamilnadu is satisfactory to the customers.

**KEY WORDS:** Customer perception, Customer relationship management, CRM Policies, CRM practices,

### **INTRODUCTION**

Indian banking system has witnessed rapid growth in recent past with the initiation of financial sector reforms. The thrust of financial sector reforms is to improve efficiency, competitiveness and productivity of the financial system. Building relationship with customers is now recognized as over-riding goal of marketing and especially emphasized in service based sectors. Customer Relationship Management (CRM) is a vital factor to improve the performance of the banks and to ensure customer satisfaction. Customer relationship management involves organizing activities around the sole customer which can ensure

differentiation at each point of service by creating a unique experience. In fact with augment competition in the retail banking sector has intensified the use of CRM as a means of securing competitive advantage.

#### **NON-BANKING FINANCIAL COMPANIES IN INDIA:**

Recent years have witnessed significant increase in financial intermediation by the NBFCs. This is reflected in the proposal made by the latest Working Group on Money Supply for a new measure of liquidity aggregate incorporating NBFCs with public deposits worth Rs.20 crore. For regulatory purposes, NBFCs have been classified into 3 categories: (a) those accepting public deposits, (b) those not accepting public deposits but engaged in financial business and (c) core investment companies with 90 per cent of their total assets as investments in the securities of their group/ holding/subsidiary companies. The focus of regulatory attention is on NBFCs accepting public deposits.

As per the NBFC Acceptance of Public Deposits (Reserve Bank ) Directions, 1998, the quantum of public deposit in respect of NBFCs was linked to credit rating from an approved agency so as to enable the depositor to make informed decision. The NBFCs were also encouraged to broad-base their resources through borrowings from banks and financial institutions, inter-corporate deposits/ loans, secured bonds/debentures, etc., which were exempted from the definition of “public deposit”. However, the Associations of NBFCs and the apex trade bodies brought to the notice of both the Government and the RBI the problem of asset-liability mismatches caused by frequent downgrading of the credit ratings of NBFCs and the consequent reduction in quantum of permissible public deposits. They also suggested that smaller NBFCs could be exempted from the requirement of credit rating for having public deposits upto a particular limit while larger NBFCs could be allowed higher limits of public deposits subject to minimum investment grade credit rating and higher capital adequacy requirements. The Task Force on NBFCs appointed by the Government of India submitted its report in October, 1998, which recommended rationalisation of regulations for NBFCs, improvement of the legislative framework for protecting the interests of depositors and development of NBFCs on sound and healthy lines (Box

The modified regulatory framework for NBFCs based on the recommendations made by the Task Force provides for the following:—

- NBFCs with net owned fund (NOF) of less than Rs. 25 lakh (with or without credit rating) are not entitled to accept public deposits (as hitherto).
- The unrated and underrated (rating below the minimum investment grade) NBFCs in the category of equipment leasing and hire purchase finance companies with NOF of Rs. 25 lakh and above are allowed to accept public deposits upto 1.5 times of their NOF or Rs. 10 crore, whichever is less, provided their CRAR is 15 per cent or above as per their last audited balance sheet. 1 The unrated and underrated NBFCs in the category of loan and investment companies, irrespective of their NOF and CRAR, are not entitled to accept public deposits (as hitherto). NBFCs in the category of equipment leasing and hire purchase finance companies with NOF of Rs. 25 lakh and above as well as minimum investment grade credit rating can accept public deposits four times of NOF provided they have CRAR of not less than 10 per cent as on 31.3.1998 and shall have CRAR of not less than 12 per cent as on 31.3.1999. NBFCs in the category of loan and investment companies with NOF of Rs. 25 lakhs and above as well as minimum investment grade credit rating can accept public deposits not exceeding 1.5 times of NOF provided they have CRAR of 15 per cent or above with immediate effect. NBFCs in the category of equipment and hire purchase companies should endeavour to increase their CRAR to 15 per cent as early as possible

### **OBJECTIVES OF THE STUDY**

This study is started with the following objectives:

1. To study the customer awareness on customer relationship management policies of NBFCs in Kanya kumari District of Tamilnadu.
2. To check the customer relationship management practices followed in branches of NBFCs in Kanya kumari District of Tamilnadu.
3. To study the role of E- CRM strategies in bringing customer satisfaction.

### **REVIEW OF LITERATURE:**

Financial system constitutes financial instruments, institutions, markets and services. In this, financial institutions are organized structural facilities deals with mobilization, organization, marketing and distribution of financial products. Banks and non-banking financial companies are major constitutes of financial institution in the country where banks serve major segments and later serve the niche segment of financial system. Since beginning, banking sector has been played dominant role in financial system worldwide, but, due to liberalization,

privatization and globalization reforms non-banking sector has increased their contribution significantly. Thus, present study aimed at presentation of worldwide academic and research literature on non-banking financial companies.

**Samsundhram (2020)**, has discussed the merits and demerits of moratorium facility offered by banks & NBFCs to its customers as per RBI directions for six months as relaxation measure for Covid 19. The study observed that, only 30-40 percent of customers used moratorium facility rest is not, even though it does not affect their credit profile. This indicates a good sign for well-disciplined financial practices of Indians earlier to Covid 19 which increased their financial wealth to bear unforeseen future concerns.

**Nandhini (2019)**, evaluated the financial performance of NBFCs in India. The study revealed that, the growth, operational performance, financial soundness, asset quality of NBFCs improved over the years. The growth of NBFCs in niche segments of financial sector is even higher than banking sector.

**Hareesh (2018)**, has evaluated the financial performance of eight NBFCs –ND-SI working in Kerala during post sub-prime meltdown i.e. 2008-16. For the purpose of study he used the statistical techniques such as correlation and ordinary Least Square Regression. NBFCs are emerged as non-productive short term advances for householder's in the Kerala. The study found that banks policy towards small scale industries led to growth of NBFCs in Kerala, but, rural banking policy has shown adverse impact on the NBFCs.

**Lavanya and maheswari (2018)**, have examined the effectiveness of credit risk management practices of selected two non-banking financial companies namely Muthoot and Bajaj financials during 2013-2017. The study has examined the probability of borrower default of companies by using Merton model and tested soundness of credit risk management practices with financial ratios such as current ratio, quick ratio, D/E ratio, interest coverage ratio, ROA, ROE, P/B ratio and NPA ratio. The study observed that both companies have problem with high Nonperforming assets which calls for immediate action for risk mitigation strategies. However, Muthoot company is financially sound than Bajaj companies in terms of ROE and liquidity ratios.

**Sasikala and deval (2018)**, have evaluated the industrial performance of non-banking financial companies in India during 2014-18. The study examined the performance in selected parameters such as asset quality, profitability and risk exposure and capital adequacy. The study found uptrend in Net Non performance assets which gradual deterioration of asset quality of NBFCs during the study period. Similarly, ROE (9.1 to 8.4 percentage) and ROA (2.2 to 1.9 percentage) reported down trend which indicates falling profitability NBFCs. Similarly, capital adequacy of NBFCs has fallen significantly from 27.5 to 22.9 percent which reveals risk capability reduction of the NBFCs. The study concluded that poor asset quality of NBFCs has shown negative impact on the profitability and capital adequacy of the NBFCs in India during the study period

## Results and Discussion

**Table 1: Analysis of Demographic Profile**

Characteristics	Distribution	Frequency	Percentage
Gender	Male	78	78%
	Female	22	22%
Age	18 - 25 Years	23	23%
	26 - 40 Years	28	28%
	41 - 55 Years	36	36%
	56 Above	13	13%
Monthly Income	Less than 10,000	15	15%
	10,001 - 25,000	51	51%
	25,001 - 50,000	21	21%
	50,001 & above	13	13%
Educational Qualification	Up to HSC	34	34%
	UG	15	15%
	PG	35	35%
	Professional	16	16%
Occupation	Private Sector	29	29%
	Government Sector	27	27%
	Self-Employed	26	26%
	Student and others	18	18%
Online Banking Habit	Yes	66	66%
	No	34	34%

Source: Primary Data

To observe the relationship between customer awareness on CRM policies of NBFCs In Kanyakumari District of Tamilnadu and demographic profile, chi-square test is computed. It is used to test whether there are any significant differences in awareness. The results of Chi-square test presented in table-2 shows that as an overall, there are no significant differences

between customer awareness on CRM policies of NBFCs In Kanyakumari District of Tamilnadu based on gender, age, education, occupation. It is evident that in all cases the calculated value is greater than the table value as shown in table-2. This implies that customer awareness on CRM policies in NBFCs In Kanyakumari District of Tamilnadu is similar, regardless of gender, age, education and occupation. Thus it is examined that when NBFCs In Kanyakumari District of Tamilnadu want to recognize the awareness of customers on their CRM policies, demographic profiles did not persuade what customers perceived.

**Table 2: Descriptive Statistics on CRM Polices and Demographic Factors (Pearson One-way ANOVA)**

CRM Policies	Gender		Age		Education		Occupation	
	x <sup>2</sup>	Sig.	x <sup>2</sup>	Sig.	x <sup>2</sup>	Sig.	x <sup>2</sup>	Sig.
Customer recognition	3.14	0.76	13.22	0.25	17.23	0.24	6.44	0.64
Quick response	3.90	0.62	11.53	0.37	9.42	0.61	12.34	0.56
Retention strategy	2.93	0.78	8.24	0.89	17.34	0.01*	13.87	0.75
Technology based service	4.53	0.64	11.58	0.43	13.28	0.72	7.47	0.76
Personnel assistance	5.22	0.28	10.52	0.63	16.97	0.53	24.56	0.37
Transparency in cost	3.75	0.45	6.26	0.76	11.35	0.42	15.29	0.83
Grievance redressal	4.47	0.84	12.58	0.74	6.85	0.54	7.25	0.21
May I help you service	7.43	0.15	14.59	0.55	11.23	0.68	12.57	0.54
Information on new service	1.54	0.56	9.84	0.63	15.24	0.37	13.65	0.65
ATM Service	7.35	0.54	15.47	0.48	14.26	0.56	8.28	0.58
Online banking service	5.06	0.27	11.41	0.62	12.35	0.36	15.69	0.69

Source: Primary Data

\*significant at 5% level

Customer Relationship Management Practices The true banking business is to keep and satisfy customers, CRM has caught the attention of practicing commercial banks. This research provides the essential insight into the relationship management practices of this revolutionary concept. This study provides 12 variables of CRM practices followed in NBFCs In Kanyakumari District of Tamilnadu such as, courtesy of employees, ambience of bank, environment of bank, facilities in the bank, customer friendly products, promptness in services, ability to help customers, knowledge of customer redressal, familiarity of the customer, ATM locations, working hours and execution of service. The application of t-test is to evaluate the computed mean value based on the perception of customers. In this ttest the computed mean value of the customers is compared with hypothesized mean value 3 to get the significance or insignificance value.

**Table 3: Customers Perception on CRM Practices**

(N = 100)

Variables	Mean	Std. Deviation	Std. Error Mean	t-value	Sig (2 tailed)
CRMP1	3.7935	1.1357	0.3674	13.679	.000
CRMP2	4.5623	0.6465	0.4257	36.794	.000
CRMP3	4.4675	0.6873	0.2675	23.588	.000
CRMP4	3.6426	1.1531	0.5278	12.689	.000
CRMP5	4.8153	1.2648	0.3426	-10.099	.000
CRMP6	2.7383	1.0676	0.3899	22.098	.000
CRMP7	2.0653	1.0354	0.4973	-12.985	.000
CRMP8	4.2558	0.9742	0.5296	-19.591	.000
CRMP9	3.7479	1.0222	0.5824	22.565	.000
CRMP10	3.6156	0.5637	0.2367	16.295	.000
CRMP11	2.7615	1.2135	0.3795	17.934	.000
CRMP12	2.8695	1.2641	0.3966	14.462	.000

Source: Primary Data

It is found in the above table that the mean value of the CRM practice variable range from 2.0653 to 4.8153. In particular, it is identified that the variable number from CRMP1 to CRMP4, and from RMP8 to CRMP10 the mean values are strictly greater than 3. It is found that the bank customers are strongly agreed the t-values are greater than that is, 13.679, 36.794, 23.588, 12.689, 22.098, 22.565, 16.295, 17.934 and 14.462 which are statistically significant at 5% level. The customers are disagreed that the t-values are 10.099, 12.985, and 19.591. Therefore it could be concluded that the CRM practices followed in NBFCs In Kanyakumari District of Tamilnadu is agreed by the customers.

**Table 4: Multiple Linear Regression Analysis**

Independent Variables	Dependent Variable	Un-standardized coefficients		Un-standardized coefficients		Un-standardized coefficients
		Beta	Std. Error		t value	
Constant	CRM Practices in SBI	-0.821	0.620		-1.466	0.002
Physical Service		0.414	0.061	0.456	6.933 <sup>@</sup>	0.001
Reliability in Service		0.213	0.074	0.161	1.724 <sup>§</sup>	0.003
Openness in Service		0.219	0.081	0.143	1.676 <sup>§</sup>	0.003
Service Delivery		0.178	0.043	0.088	0.834 <sup>§</sup>	0.014
Need Understanding		0.156	0.061	0.113	1.226 <sup>§</sup>	0.007
Personal Welfare		0.112	0.034	0.118	1.252 <sup>§</sup>	0.025

Note: @ significant at 1%

§ Significant at 5%

Multiple linear regression analysis shows that all six independent variable are positively related with the CRM practice of NBFCs In Kanyakumari District of Tamilnadu. Table 5 reveals the value of R<sup>2</sup> and adjusted R<sup>2</sup> as 0.640 and 0.56 respectively, which indicates that

64% of variation on CRM practice, explained by six underlying factors. Physical service in bank having highest beta coefficient 0.414 and t value 6.933 is statistically significant at 1% level. It indicates that the strong influence on customer relationship management practices of NBFCs In Kanyakumari District of Tamilnadu Reliability in service, openness in service, service delivery, need understanding and personal welfare are statistically significant at 5% of level. From this analysis, it is found that there is significant influence on CRM practices in NBFCs In Kanyakumari District of Tamilnadu.

### Role of E-CRM Strategies

E-CRM strategies play a significant role in customer satisfaction. The role of following factors such as, internet banking, ATMs, mobile banking, E-mails, smart cards, fund transfer and e-cheque has been presented among the customers. The customers are asked to rate their satisfaction level to the variables on the basis of five point scale. The components are identified in the pre-test and customers are asked to rate the most appropriate strategies to enhance CRM in electronic way. One sample t-test is applied on the above variables in E-CRM strategies; it is performed with assigning test value 3 to the identified variables.

**Table 5: One-Sample t-Test**

Variables	Test Value = 3					
	t	df	Sig.	Mean difference	95% Confidence Interval of the Difference	
					Lower	Upper
Internet banking	21.856	99	.000	.943	.887	1.074
ATMs	22.527	99	.000	.847	.826	1.153
Mobile banking	19.854	99	.000	.773	.646	.816
E-mails	20.357	99	.000	.728	.613	.799
Smart cards	21.267	99	.000	.847	.775	.986
Fund transfer	18.169	99	.000	.816	.724	.916
e-cheques	17.745	99	.000	.763	.711	.824

Source: Primary Data

It is clear from the above table that t-test values are extensively greater than the test value 3 at 5% level of significance. It acknowledges that E-CRM factors mostly rely with the beginning of many strategies in electronic mode. The customers overwhelmingly believe that the internet banking, ATMs, E-mails, smart cards, here the t-values are greater than 20. Furthermore mobile banking, fund transfer and e-cheque has moderate impact on the bringing satisfaction to them. E-banking leads to maintain good rapport with the customers by

providing speedy services. This test proves that E-CRM strategies have significant impact on the customer satisfaction.

## **FINDINGS & CONCLUSION**

In this modern technology era, when the customer is having access to a variety of products and services it is fetching very difficult for banks to endure. In this circumstances, when customer inquiries are not met easily or transactions are convoluted, the customer will asks for new levels services, and only choose those banks who are making a real effort to provide a high level of quality, fast and efficient service through the bank touch points, ATMs, and other e-banking services. Hence the commercial banks are considering this fact with the maintenance of good relationship. The findings of the study show that the influence of demographic factors on customer's awareness towards CRM policies in NBFCs was examined. Analysis of variance and chi-square were executed to test whether the means of the customer's awareness differ by gender, age, education and occupation. The results indicate that there was no significant difference in means between customers awareness on CRM policies among banks based on these demographic factors. This would simply that customer's awareness on CRM policies in NBFCs In Kanyakumari District of Tamilnadu was similar regardless of demographic variables. The customer perception on customer relationship management practices adopted by the NBFCs In Kanyakumari District of Tamilnadu is agreed about nine practices. In order to assess the impact of different antecedents of customer relationship management, multiple regressions is also used. The results clearly revealed that there is a significant impact exists among the variables. E-CRM has significant attention on the maintaining relationship with the customers. It is seen that banks are applying customer oriented relationship management and attempting for the establishment of long-term relationships.

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## TALENT MANAGEMENT -THE NEW NORMAL

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### ABSTRACT

Talent Management is a process by which the talented employees are pooled according to the future needs of the organization which helps the organization to grow and by benefitting the individual employees of the organization. The process thus involves identifying talent gaps and vacant positions, sourcing for and on boarding the suitable candidates, growing them within the system and developing needed skills, training for expertise with a future-focus and effectively engaging, retaining and motivating them to achieve long-term business goals. . **Planning, Attracting, Selecting, Developing, Retaining, Transitioning are the processes involved in Talent Management.**

### INTRODUCTION

Talent management is defined as the methodically organized, strategic process of getting the right talent onboard and helping them grow to their optimal capabilities keeping organizational objectives in mind.

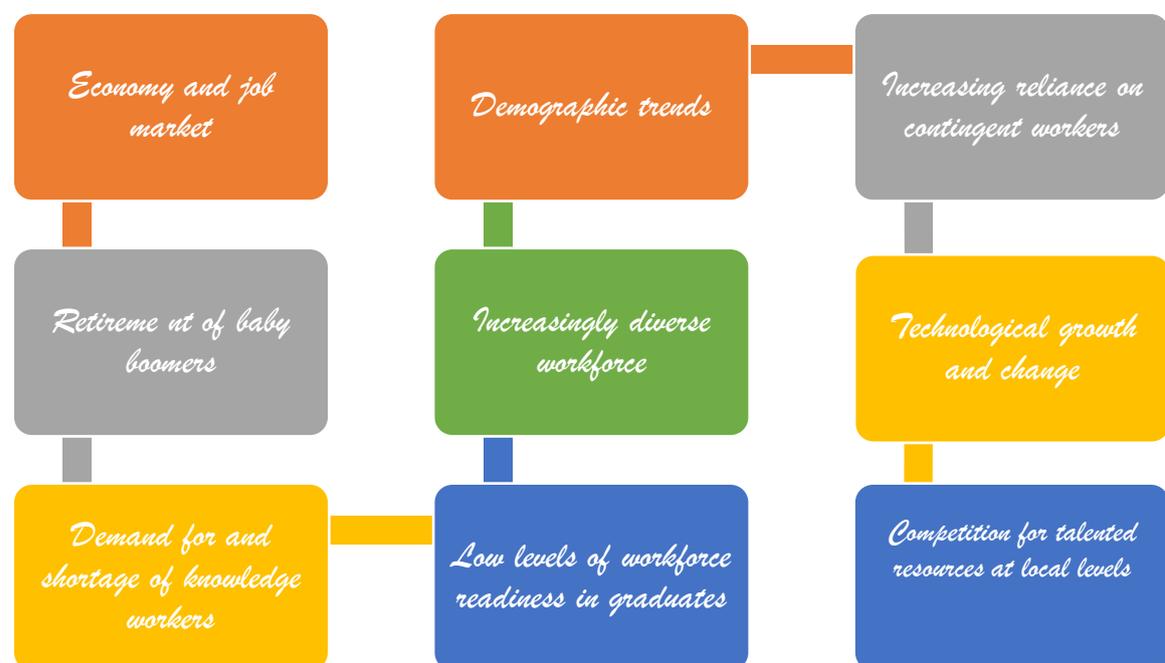
The process thus involves identifying talent gaps and vacant positions, sourcing for and on boarding the suitable candidates, growing them within the system and developing needed skills, training for expertise with a future-focus and effectively engaging, retaining and motivating them to achieve long-term business goals. The definition brings to light the overarching nature of talent management – how it permeates all aspects pertaining to the human resources at work while ensuring that the organization attains its objectives. It is thus the process of getting the right people onboard and enabling them to enable the business at large.

Under the umbrella of talent management, there are a string of elements and sub-processes that need to work in unison to ensure the success of the organization. For example,

analyzing the right talent gaps for the present and the future, identifying the right talent pools and best-fit candidates, getting them to join and then optimizing their existing skills and strengths while helping them grow are touch-points that are all equally important. They support each other and the whole structure would crumble even if one sub-process fell out of sync.

### IMPORTANCE OF TALENT MANAGEMENT:

Organizations are realizing the importance of talent management and retention in today's marketplace, especially due to several key factors.

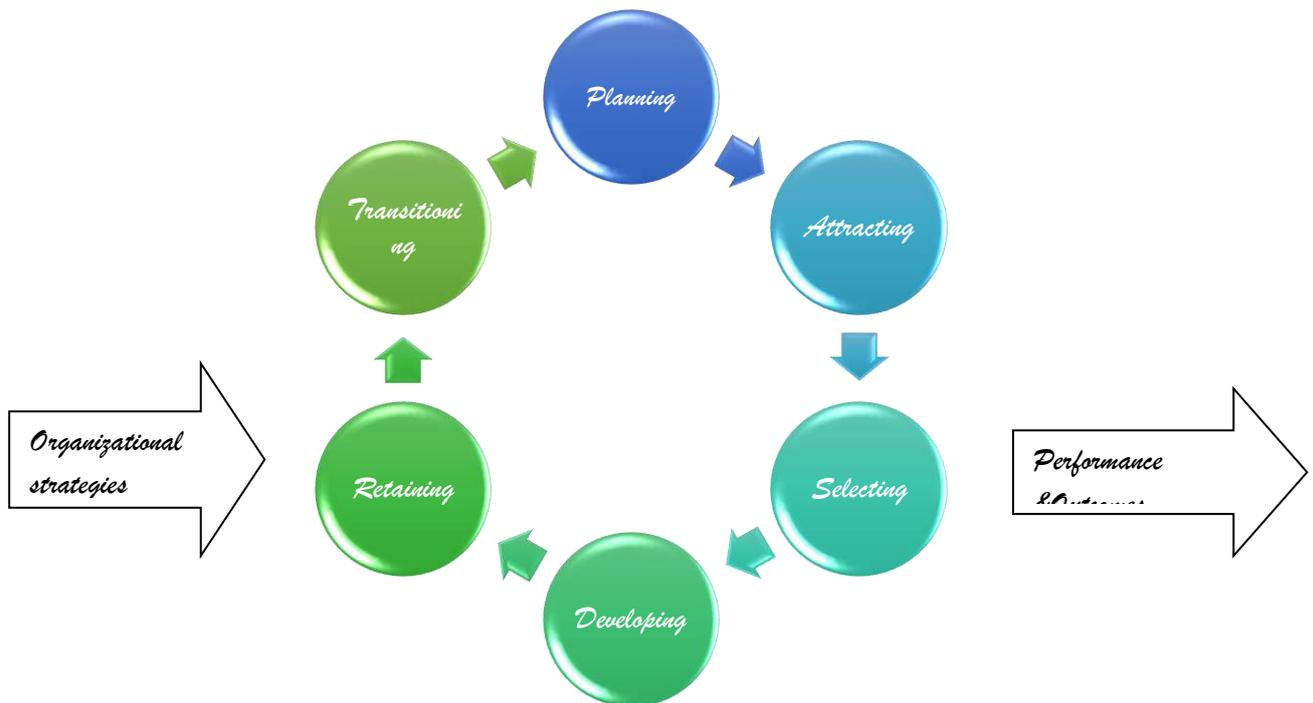


### Talent Management Process

While often cyclical rather than a generic linear progression of events, the process of talent management could be considered, to begin with acknowledging the need for talent and leads to filling that gap and ultimately growing and optimizing the skills, traits, and expertise of employees, new and old.

The following image depicts the key points of the talent management process:

## TALENT MANAGEMENT PROCESS



Let's get into these key steps in the process of managing talent effectively:

**1. Planning:** Like in any process with a set outcome, planning is the first step in the process of talent management. It involves the following identifying where the gaps lie – the human capital requirement, formulating job descriptions for the necessary key roles to help guide sourcing and selection and developing a workforce plan for recruitment initiatives.

**2. Attracting:** Based on the plan, the natural next step is to decide whether the talent requirements should be filled in from within the organization or from external sources. Either way, the process would involve attracting a healthy flow of applicants. The usual external sources include job portals, social network, and referrals. The talent pools that need to be tapped into must be identified in advance to keep the process as smooth and efficient as possible. This is where the kind of employer brand that the organization has built for itself, comes into play because that decides the quality of applications that come in.

**3. Selecting:** This involves using a string of tests and checks to find the right match for the job – the ideal person-organization fit. Written tests, interviews, group discussions and psychometric testing along with an in-depth analysis of all available information on the candidate on public access platforms help in gauging an all-rounded picture of the person.

Today there are software and AI-enabled solutions that recruiters can use to skim through a vast population of CVs to focus on the most suitable options and to find the ideal match.

**4. Developing:** Quite a few organizations today operate on the idea of hiring for attitude and training for skills. This makes sense because while you would want a predisposition to certain skill-sets, it is the person that you are hiring and not the CV. Developing employees to help them grow with the organization and training them for the expertise needed to contribute to business success also builds loyalty and improves employee engagement. This begins with an effective onboarding program to help the employee settle into the new role, followed by providing ample opportunities for enhancing the skills, aptitude and proficiency while also enabling growth through counseling, coaching, mentoring and job-rotation schemes.

**5. Retaining:** For any organization to be truly successful, sustainably, talent needs to be retained effectively. Most organizations try to retain their best talent through promotions and increments, offering opportunities for growth, encouraging involvement in special projects and decision-making, training for more evolved roles and rewards and recognition programs.

**6. Transitioning:** Effective talent management focuses on a collective transformation and evolution of the organization through the growth of individual employees. This involves making each employee feel that they are a part of a bigger whole. Providing retirement benefits, conducting exit interviews and effective succession planning might seem like unrelated career points but they are all transition tools that enable the shared journey.

### **Talent Management Model**

Over the years, there have been multiple models made for talent management that have been created by organizations who have felt that they have finally cracked the code on the perfect model. The thing with talent management, however, is that it needs to morph to suit the latest talent trends, digital disruptions, and employee expectations.

The primary components of the model are:

# AADD

- **A**cquire – Employer branding, recruitment, on boarding
- **A**ssess – Talent analytics, succession planning and assessments
- **D**evelop – Workforce planning, culture at work, engagement and retention practices
- **D**eploy – Goal alignment, career-path planning, learning and development, and performance management

This structure of components is cyclical and goes on in a sustained loop while taking onto consideration the internal climate within the organization and the external environment in which it operates.

## Talent Management Strategy

Talent management is not a mere checklist of requirements that need to be sufficed – it is a strategy that needs careful implementation, regular checks, and continual improvement. The following are the six primary talent management strategies that serve as the pillars of people functions.

### 1. Detailed job descriptions

A well-informed, detailed job description helps the sourcer, the sourcing software, and the candidate understand the job-role better. Generic job descriptions only serve to confuse all parties involved in the talent acquisition process and lead to a wave of irrelevant applications. Information that must be a part of the job description includes the following:

- Job title and location
- Overall duties
- Skills required
- Reporting lines
- Tools and equipment used
- Salary and benefits

With these, candidates can make an informed decision on whether to apply or not and sourcers get CVs that fit the bill better.

## **2. Person-organization fit**

An employee that does not fit into the organizational culture can neither be the happiest employee nor the most sustainably productive one. While the culture can be difficult to define in words, it is prevalent in actions and quite easy to understand whether a candidate would be a good fit or not. Personal and organizational values need to have a certain degree of overlap for any employee to feel at home within the organization. Without a comfortable person-organization fit, the most amount of time, effort and energy would go into attempts at adjustment. Hiring candidate with the right P-O fit (or PE fit) thus greatly improves the chances of better employee engagement, higher employee satisfaction, and usually better performance.

## **3. Collaborate-coach-evolve**

An important strategy to make talent management more effective involves creating a culture of coaching, mentoring (even reverse mentoring) and collaboration. Constructive feedback goes a long way when it comes to helping employees evolve and develop their skills and expertise. Managing talent is thus also about preparing them for the future of the organization – to be ready for changes down the path and to be able to rely on each other.

## **4. Reward and recognize right**

The process of rewards and recognition forms an important part of the strategy to motivate, engage and manage employees better. This goes beyond financial rewards and bonus packages. Studies point towards the fact that employees often want R&R schemes that motivate them with “prizes” that are most relevant to them as individuals. This is a great opportunity for organizations to show their employees how much they care for them as persons and as integral aspects of the organizational machinery.

## **5. Opportunities for continuous improvement**

Managing talent needs to be put in the context of the future that the organization has envisioned for itself. Thus, employees need to be equipped with the right tools to be able to

maximize their own potential. For the continuous improvement of the organization, there needs to be the scope and opportunities for the continuous development of its employees. Moreover, this ensures that the cumulative skills within the organization is updated, upgraded and upscaled.

Talent management involves strategically planning career paths that make sense for every employee. We all tend to work better we know where we are headed and what the next step is for our careers. This does not entail making empty promises of promotions but rather creating a career map in discussion with the employee, making sure that they relate to it and feel that it is realistic while also providing them with all the necessary tools to make the map a reality. Having a map to follow also improves retention scores since employees then know what they have to look forward to and work towards and can then collaborate effectively to achieve it.

#### **CONCLUSION:**

As part of Talent management responsibilities, human resource professionals must be able to anticipate the future talent needs of the organization and foresee what the potential employee pool will look like when those organizational needs become a reality. Used appropriately, talent pools can be created and developed to fill the gaps between the talent that the organization will need and the talent that is likely to be available.

## A CONCEPTUAL FRAMEWORK ON TALENT MANAGEMENT

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### **ABSTRACT:**

People management has become an herculean task of HR department of any organization. Recruitment to retirement is the common parlance of HR functions. Identifying the ideal talent to fit in the right place is the solution to the challenge of sustenance and retention. Talent management is processing, acquiring, maintaining, developing, retaining and utilizing the human resources to have a competitive advantage in the market place. The article tries to bring in the wide concept of talent management in a comprehensive way. The article enables the reader to get a conceptual clarity and thus shed down the misconceptions of the concept talent management.

**KEYWORDS:** Talent management, recruitment, Strategies, Competitors, Conceptual clarity.

### **INTRODUCTION**

Talent may be defined as the inherent ability of an individual to do a particular task in a particular way. Talent has a connotation of distinction. Talent management incorporates attracting, retaining and developing the talent pool available to an organization in association with the other functions of management, so that the organization is never rendered bereft of expertise.

Talent management is a systematic process of identifying, assessing, developing and retaining people with exemplary knowledge, skills and competencies. Competence, capability and talents are human assets of organizations. At the workplace, capability could mean member's readiness to seek, undertake and carry out challenging work assignments. It is grounded in self-efficacy and other self-related phenomena.

Talent management systems provide an organization with the vehicle of attracting and retaining the right skills at the right time in the right jobs. The term 'talent management' refers to the anticipation of required human capital for an organization and the planning to meet those needs. The purpose of talent management is to ensure that a firm has the right talent with the right skills at the right time. Matching between tasks and talents is a challenging

problem and it is essential for allocation efficiency that people get allocated to right occupations.

Talent management is basically a process that involves utilizing, developing and managing employees who have strategic capabilities that are important for the success of business. Talent management methods help to stimulate newly joined employees to be energetic, motivated, long-term staff, and make this process to be the duty of all managers from top to bottom rather than keeping it only as a duty of human resources departments. As a philosophical approach, talent management involves focusing on all talented employees and trying to develop all of them.

During talent management practices, information management becomes crucial. Information technology contribute to talent management by supporting sustainability of operations, and so increase organizational performance.

### **PROCESS OF TALENT MANAGEMENT**

- ✓ Classifying, identifying, choosing and recruiting talent from outside of company within employment marketplace
- ✓ Classifying and identifying internal talent
- ✓ Training talented employees
- ✓ Retaining talented employees

### **CONCEPTUAL FRAMEWORK**

The organizational factors included in the framework are working environment, company culture and policy, leadership behaviour and teamwork relationship. The HR factors are comprised of compensation package, organization fit, challenging opportunity and training and development. Employee's organization fit means whose values, norms and ethics are congruent with those of an organization is necessary to keep him or her for a long time in the organization .

Training and development is another dimension that the employees care for considering to be dynamic and to be competent in the job market. Hence, more training and developmental tasks motivate the employees to stay for longer tenure in the company.

## IMPORTANCE OF TALENT MANAGEMENT

- ✓ Establishing a high-performance workforce.
- ✓ Attracting individuals with high potential and retaining them through proper training and refreshment.
- ✓ Increasing the productivity of the organization.
- ✓ Proper time management, as untrained and unskilled workforce lead to wastage of time and commitment of errors, which is not cost-effective.
- ✓ Retain talented and high-performing employees.
- ✓ Ensuring growth and innovation in the organization.
- ✓ Developing skills and competencies in employees.

## COMPONENTS OF TALENT MANAGEMENT

- ✓ Planning
- ✓ Acquisition
- ✓ Developing talent
- ✓ Retaining talent
- ✓ Learning & Motivating
- ✓ Performance Management

## PLANNING

Planning ensures the employee's talent management action to deliver their skills based on organisational needs. It helps them to understand. So the organisation attracts, engages, developing and retaining the right people.

## ACQUISITION

Talent Acquisition is the process of attracting and hiring qualified people. Talent Management is how you develop and retain these skilled hires.

If the organisation attract and hire good employees but don't invest in their development, you won't be able to retain them.

## DEVELOPING TALENT

Talent development is the organizational process of positioning employees for career advancement in a way that aligns with the company's mission. This includes identifying

workers' aptitude and goals and helping them to develop the knowledge and skills that they need to achieve the goals and fill the needs of the company.

- ✓ Understand the company's objectives
- ✓ Identify opportunities for upskilling and reskilling
- ✓ Provide many learning options and methods
- ✓ Create a culture that embraces continuous learning
- ✓ Promote performance coaching
- ✓ Include leadership development

### **RETAINING TALENT**

Retaining talent means the ability an organisation has to keep its talented employees within the organisation. When employees choose to stay with their current company, rather than look for opportunities elsewhere.

- ✓ Recognize retention starts with recruiting
- ✓ Identify candidates who will stay the course
- ✓ Identify those who can share their outlook
- ✓ Providing ongoing education and clear paths to advancement
- ✓ Stick with remote work options
- ✓ Be competitive with compensation packages

### **LEARNING & MOTIVATING**

Learning should be an essential component of any employee's life. And, it is the responsibility of the HR to yield that knowledge and experience.

Implement learning programs that include activities and tasks that not only advance the employee but also support the organization's culture and initiatives.

### **PERFORMANCE MANAGEMENT**

Performance management begins with assigning the right person with the right role. It is the ultimate goal to ensure that business objectives are met.

It enables to ensure that the organisations are aligning a talented employee with a role that does justice to their knowledge and expertise.

### **ADVANTAGES OF TALENT MANAGEMENT**

- ✓ Right person in the right job
- ✓ Retaining the top talent
- ✓ Better Hiring
- ✓ Better professional development decision

### **RIGHT PERSON IN THE RIGHT JOB**

Through a proper ascertainment of employee's skills and strengths, the decisions might gain a strategic agenda. The skill or competency mapping allows employee's to take stock of skill inventories lying with the organization. This is especially important both from the perspective of the organization as well as the employee because the right person is deployed in the right position and employee productivity are increased.

Since there is a better alignment between an individual's interests and his job profile, the job satisfaction is increased.

### **RETAINING THE TOP TALENT**

Despite changes in the global economy, attrition remains a major concern of organizations. Retaining top talent is important to leadership and growth in the marketplace. Organizations that fail to retain their top talent are at the risk of losing out to competitors.

The focus is now on charting employee retention programs and strategies to recruit, develop, retain and engage quality people.

### **BETTER HIRING**

The quality of an organization is the quality of workforce it possesses. The best way to have talent at the top is have talent at the bottom. No wonder then talent management programs and trainings, hiring assessments have become an integral aspect of HR processes nowadays.

### **UNDERSTANDING EMPLOYEES BETTER**

Employee assessments give deep insights to the management about their employees. Their development needs, career aspirations, strengths and weaknesses, abilities, likes and dislikes. It is easier to determine motivates among the employees and this helps a lot in the job enrichment process.

## BETTER PROFESSIONAL DEVELOPMENT DECISIONS

When an organization gets to know who has high potential, it becomes easier to invest in their professional development. Since development calls for investment decisions towards learning, training and development of the individual either for growth, succession planning, performance management etc.

An organization remains bothered where to make this investment and talent management just make this easier for them. If employees are positive about the talent management practices of the organization, they are more likely to have confidence in the future of their organization.

### Disadvantages of Talent Management

- ✓ The implementation of talent management program could be expensive in terms of time, resources and financial costs.
- ✓ A core drawback of talent management is, it can contribute in raising the conflicts between HR and management by not reaching to proper agreement or consensus.
- ✓ Lack of understanding can at times lead to loss of trust.
- ✓ Conflicts between the human resources team and management.
- ✓ Getting the needed support from every department can be challenging.
- ✓ Not all companies are prepared for its implementation.
- ✓ Proper implementation would need the support of the top management.
- ✓ Not ideal for businesses hiring part-time or contract based employees.
- ✓ It can often conflict with the leadership limitations.
- ✓ It can increase the overall costs when hiring from other locations.
- ✓ It also cause dissatisfaction among employees if the salaries are below market value.
- ✓ Hiring is mostly based on the interview skills and not on experience.
- ✓ No proper career paths defined & lack of proper training.

## CHALLENGES AND OPPORTUNITIES

- ✓ Companies need to recognize that applications and technology alone cannot address the entire talent management challenges. Getting the support from every department can be a challenging task.

- ✓ Talent management process demands to have the involvement of business process owners who have the authority to break down organizational silos. Proper communication needed from every front to deal with the circumstances more effectively.
- ✓ At certain circumstances, companies may not be prepared internally to deal with the looming talent shortages and critical skills needs.
- ✓ Successful orchestration of business and talent starts with a holistic talent management plan but practical implementation involves top management consideration and support.
- ✓ The senior leadership often believe that it is enough to pay them well and give them holidays and a few benefits. There is a fundamental mismatch of expectations here, and it has to be resolved if talent is to arrive and stay.

### **TALENT MANAGEMENT STRATEGIES**

A talent management strategy is the plan of action to optimize employee performance. This means optimizing performance in the broadest sense.

- ✓ Use Employee Training and Development Tools and Activities

Standardize Strategy for Talent Review and On boarding Processes

- ✓ Track and Measure Performance
- ✓ Give Feedback Examples and Reviews
- ✓ Recognize and Reward Top Performers with Initiatives
- ✓ Increase Employee Motivation

### **CONCLUSION**

Talent management is a new to the organizations. Most of the organization's talent management practices are in very primary stages. Hence, are not directly linked to the performance management system and talent management system. We need a new way of thinking about the talent management challenge.

A new framework for talent management has to begin by being clear about the objectives. Talent management is not an end in itself. It is not about developing employees or creating succession plans. The goal of talent management is the much more general, but

the most important task of Talent Management is to help the organization to achieve its overall organizational goals and objectives at a minimum cost using the highest talented people.

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## A STUDY ON IMPACT OF DIGITAL TRANSFORMATION ON CUSTOMER RELATIONSHIP MANAGEMENT IN THE CONTEXT OF E-COMMERCE.

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### **ABSTRACT:**

**This** study examines the various dimensions of Customer relationship management (CRM) which is impacted by Digital transformation in context of E-commerce. Conceptually, CRM is known as a set of applications and processes that allow companies to manage relationship with their current and potential customers in the areas of marketing, sales, and consumer services. In the current digital era, internet has been tremendously effectual to the E-commerce world. E-commerce means “Electronic Commerce” that is use of electronic data transmission to implement or improve any business process. E-commerce uses the information technology to improve communications and transactions with customers and stake holders of the company by establishing a web page to facilitate these communications. The concept of CRM understands the need, preferences, and taste of the potential customers of company based on the implications of market research. By this approach customer loyalty is increased and sales growth is sustained. This paper consolidates effect of digital transformation on CRM in the context of E-commerce. In the recent past the functioning of CRM and E-commerce functions strongly with the support of internet technology and its latest applications.

**KEYWORDS:** Customer Relationship Management (CRM), E-commerce, Digital Transformation.

### **INTRODUCTION:**

Customer Relationship Management (CRM) was influenced by Relationship Marketing, and has represented a great balance in ongoing relationships, demonstrating a large impact on profitability from small increases in customer retention rates there by potential customers are retained. In this way, the marketing community has become more aware of the need to manage long term customer relationships, even before the first sale is made (Wilson, HN, Daniel, EM, & McDonald, MHB, 2001). The CRM functions supports the maintenance

of strong customer base by organisation able reach customers based on their needs and preferences.

The academic community, the terms "relationship marketing" and CRM are often used interchangeably (Parvatiyar and Sheth 2001). Basically, the concept of customer relationship management derived from marketing domain. However, CRM is more commonly used in the context of technology solutions and has been described as "information-enabled relationship marketing" (Ryals and Payne 2001). The CRM is appropriate when it is enabled with support of information technology. An important aspect of the CRM definition it is examined in association with technology.

CRM is a strategic approach that is concerned with creating improved shareholder value through the development of appropriate relationships with key customers and customer segments. Customer centric or customer-oriented business thrive exceedingly through development of strong customer relationship. CRM unites the potential of relationship marketing strategies and IT to create profitable, long-term relationships with customers and other key stakeholders. By strength the of IT infrastructure the customer data base is effectively established to provide enhanced opportunities to use data and information to reach customers and cocreate value with them. This requires a cross-functional integration of processes, people, operations, and marketing capabilities that is enabled through information, technology, and applications.

Gartner (2001) calls for a fresh approach to business processes in CRM that involves both rethinking how these processes appear to the customer and reengineering them to be more customer centric. The customer focus must be the core priority in the re-engineering process of CRM. It is used to refer to a wide range of customer-oriented IT and Internet solutions, reflecting (Stone and Woodcock's 2001). Internet and its application have evolved in the course of time, which has tremendously consolidated the functioning's of CRM to be applicable to diverse customer groups from different part of the world.

As a result of the Internet and the Web are created number of powerful new software applications that enable certain traditional activities to be performed electronically (Laudon, K.K, Traver & KG., 2010). Due the substantial development of software applications and webpage development it meets the effective applicability of the CRM in the business process. The CRM system contributes to the long-term relationships of the company with the current and potential customers. Precisely, the CRM system supports the following marketing

applications (Chaffey& Dave 2004). The success of any business organisation depends on its customer. The conversion of potential customer is achieved by reaching and serving their needs and preferences.

## **REVIEW OF LITERATURE**

The Customer Relationship Management System – CRM is a set of applications and processes that allow companies to manage relationships with current and potential customers in the areas of marketing, sales and consumer services. (Laudon K. C. and Laudon J.P.,2010)

The CRM system contributes to the long-term relationships of the company with the current and potential customers. Long lasting customer relationship, the key factor that strongly augments with CRM. Precisely, the CRM system supports. The following marketing applications: sales force automation (SFA), consumer service management, sales process management, campaign management and analysis. A system set and operating in this way is an essential prerequisite for business management, customer segmentation, and subsequent effective marketing activities and sustainable business, even for small- and medium-sized enterprises. (Siu, Noel Y.-M. 2016). CRM is practised in every aspect of the business process; it is substantially practised in the management of the business and the segmentation of the customer. Three major types of CRM activities are following.

1. Operational CRM is related to typical business functions involving customer services, order management, invoice/billing, and sales/marketing automation and management. Maintenance of customer data base reflects the essential role of the Operational CRM. Operational CRM means support of the front office “business processes that include contact with the customers.
2. Analytical CRM involves activities that capture, store, extract, process, interpret, and report customer data to a user, who then analyses them as needed. The interpretation of data adequately effective in the organisational decisional making in the operational CRM are analyses the data collected for segmentation of the customers or to identify potential customers.
3. Collaborative CRM deals with all necessary communication, coordination, and collaboration between vendors and customers through all channel: traditional (direct contact, telephone, post, and others) and modern (e-mail, websites and others) and support

coordination in internal teams (employers). A strong connection with the 3 Cs such as Communication, coordination, Collaboration establishes collaborative CRM. These types of CRM integrate people, processes and data, hence companies have capacity to serve better and retain own customer (Turban E., Ephraim & M. Wetherbe J 2004)

### **E-COMMERCE AND ITS BENEFITS:**

E-commerce is defined as the use of the Internet to facilitate, execute, and process business transactions. Business transactions involve a buyer and seller and the exchange of goods or services for money.

The six success dimensions of the Delone & McLean IS Success Model can be applied to the e-commerce environment as follows:

1. System quality, in the Internet environment, measures the desired characteristics of an e-commerce system. Usability, availability, reliability, adaptability, and response time (e.g., download time) are examples of qualities that are valued by users of an e-commerce system.
2. Information quality captures the e-commerce content issue. Web content should be personalized, complete, relevant, easy to understand, and secure if prospective buyers or suppliers are to initiate transactions via the Internet and return to a site on a regular basis.
3. Service quality, the overall support delivered by the service provider, applies regardless of whether the support is delivered by the IS department or a new organizational unit or is outsourced to an Internet service provider. This dimension is more important in an e-commerce environment than ever before because the users are now customers rather than employees, and therefore, poor user support will translate into lost customers and lost sales.
4. Usage measures everything from a visit to a Web site and navigation within the site to information retrieval and execution of a transaction.
5. User satisfaction is an important means of measuring customers' opinions of an e-commerce system and should cover the entire customer experience cycle from information retrieval through purchase, payment, receipt, and service.
6. Net benefits are the most important success measures because they capture the balance of the positive and negative impacts of e-commerce on customers, suppliers, employees, organizations, markets, industries, economies, and even society.

The communication and commerce medium, the Internet is a communication and IS phenomenon that lends itself to a measurement framework (i.e., the Delone & McLean model) built on communication theory. In the e-commerce context, the primary system users are customers or suppliers rather than internal users.

### **DIGITAL TRANSFORMATION:**

The Internet has dramatically affected the conduct of business. Markets, industries, and businesses are being transformed. The new economy demands the exploitation of new models and paradigms. Information technology (IT) now drives businesses and markets. In the new economy, the Internet has become a powerful and ubiquitous communication mechanism to facilitate the consummation and processing of business transactions. This has led to substantial changes in traditional industries and companies. Firms are attempting to understand and measure the impact of IT so that they can make intelligent decisions regarding crucial IT investments. All this notwithstanding, basic business principles still hold. The laws of economics have not been rewritten. The long-term success or failure of companies is determined by their ability to generate positive net revenues. Similarly, there has been no change in the fundamental role of IT in facilitating business transactions and communicating relevant information to decision makers.

The Internet is changing consumer behaviour and helps them search much more easily and efficiently than ever before. Just a few clicks on the computer screen allow you to drive on the highway of information. People's lives become much easier with the use of technology because it does most of their work. (Blackwell D.R& Minard VP, Engel F.J.,2010).

### **IMPACT OF CRM SYSTEM:**

By managing customer relationships in marketing and adequate using of the collected data, the company have possibility to increase the percentage of the new consumers, increase sales and motivate consumers to make more purchases. (Kotler, F., Novi Sad, 2004).

According Rogers and other there are four other reasons for the behaviour of internet users, such as: research or downloading information, communicating, or socializing, surfing or entertainment and purchase on the Internet. The knowledge of consumer behaviour is an important element in building successful marketing strategies such as positioning of products, market segmentation, new product development, new applications, and different.

marketing actions and so on. Hence, companies need to analyse the behaviour of their own consumers, but also the competition consumers, which will help them develop strategies to retain their own and attract competitors' customers.

The new (digital) environment of the companies undoubtedly imposes them to be orient towards consumers if they want to remain competitive in the market. Companies that use digital technologies and the Internet in their business activities and connect directly with their customers through them, become more competitive and more efficient, and time and space limitations disappear for them.

### **E – CRM (Electronic CRM) :**

The term e-CRM (electronic CRM) was coin in the mid-1990s when customer. started using Web browsers, the Internet, and other electronic touch points (email, POS terminals, call centres, and direct sales). E-CRM also include online process applications such as segmentation and personalization. The use of the Internet, intranet and extranet make consumer services and partner services more effective and efficient than before the advent of the Internet. Through Internet technologies, consumer data can be easily used as data for marketing, sales, and consumer analysis. e-CRM has become a requirement for survival, not just a competitive advantage. e-CRM covers a broad range of topics, tools, Internet research has confirmed that e-CRM is used by many Worlds. companies (Apple, Coca-Cola, Amazon, Activision, Tesco, Philips, Toyota, BBVA Compass, American Express) and from different sectors of the business. The current situation on the market with e-CRM systems shows that the following systems are among the leaders.

1. Salesforce—focused on clarity and tries to simplify work of the user as much as possible. There are shortcomings in analytics and ecommerce.
2. SAP CRM—obtaining instant overview of the customer and his/her needs. The main shortcomings are high cost and long implementation.
3. Oracle Siebel CRM—is available in many various modifications tailored to the specific needs of specific industries. The main shortcomings are the high cost, long implementation, and the necessity of integration with other systems.
4. Microsoft Dynamics 365—most demanding in terms of implementation. Along with the system, it is necessary to own or install and use other Microsoft products.
5. Pegasystems—costly.

6. SAP Cloud for Customer—weaker in marketing and in customer care.
7. Helios Orange—targets small- and medium-sized companies.

When choosing a CRM system, it is necessary to define the needs and requirements of the company.

### **CONCLUSION:**

Consumers are oriented toward searching for information, communication and purchasing online. This digital environment has changed the way consumers and businesses interact, provided new opportunities by facilitating access to information and reduced transaction costs. Key aspect to the success of a business in the digital and dynamic environment is a satisfied customer. The customer satisfaction indicators are thoroughly achieved through robust CRM system. The current shopping experience of every individual is predominantly taken by e-commerce world.

In the new (digital) environment businesses must be consumer-oriented if they want to be competitive on the market. The digital transformation reaching potential customers and they are retained successfully. By effective CRM in place customer need, taste, preference, and choice are identified and served accordingly. This paper has brought out the different dimensions of the CRM in the context of the ecommerce.

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## OBSERVATIONS OF IOT AT RECENT TRENDS

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### ABSTRACT

IoT, at recent years spot a major research challenges in the field of cyber industry. At-most like, IoT attacks turned to be most vulnerable attacks in the cyber field. The identity of Intrusions projected as most vulnerable attack in the IoT field. The reason behind the 'Intrusions attack' injected by authorized person neither remotely or by spreading of malware from inside the organization for any type of cyber attacks. But the research problem is still present because zero-day exploits have evolved. Methodologies for detection had typically been divided into two groups. They are known as Anomaly-based and Signature-based Intrusion Detection Systems, respectively. The Signature-based Intrusion Detection systems concentrate on well-known patterns that the system has indeed learned. The extremeness in the extraction of trained signature patterns is revealed by assessments of the consecutive rate of these detections. However, it is restricted in several ways and fails to identify zero-day vulnerabilities. In this scenario, the system collapses, this could result in significant equipment losses. The objective of this paper highlights about the serious impact of intrusions with their root causes, the way how it affects the system and counter measures need to be taken for future.

**Keywords:** IoT, Intrusions, Cyber Security, IoT attacks.

### INTRODUCTION

The term 'Intrusions' is defined as where authorized person vandalize the authorized information using their identity either remotely or by from inside the organization. This cause the intrusion attack leads to the birth place of zero-day exploits in day-to-day life cycle. The

article 'sagenext.com' highlights the most recent vulnerable attacks are ransomware attacks, IoT attacks, cloud attacks, Phishing attacks, and cryptocurrency and block chain attacks. Herewith, the article discussed about the emerging cyber security challenges present in the current era of cyber research challenges. The article [1] persists about the ransomware attacks attained the data breach at the rate of 17% during the year 2021. Likely, IoT is the main target for hackers to steal the sensitive information such as cloud attacks; phishing attacks were bloomed by wearing new clown as zero-day exploits with intent to hide its real identity. The article persists about varied data breach attacks such as IoT attacks, Cloud attacks, Phishing attacks, Cryptocurrency attacks and Block chain attacks. Also, highlights about security-alert and predictions of data theft happen through known entities for above mentioned attacks. Herewith, the article mentioned about how Hackers are more vulnerable by injecting their prime target as Cryptocurrency and block-chain attacks in forecoming years.

The progressive of Cryptocurrency attacks happens through the revolutionized digital technology in money transaction were turned to be more vulnerable to digitized payments. Researchers analyzed the cause of attacks by testing with varied open source tools to detect network traffic analysis alike snort [2] [3] intrusion detection system. SNORT, prevailed as open source software for intrusion prevention and detection system. The goal of SNORT is to analyze the real-time network traffic pattern and also verify the presence of anomalies were focused with port scanning, operating system finger print, and protocol analysis with packet capturing. The results of these measurements showed that consumption of high memory and the presence of security experts need to observe the attacks frequently, where it is assigned with troublesome.

The fixation with maintaining cyber security appears to be a significant problem for the online community. Zero-day exploits have been identified as a significant research challenge that must be overcome. The zero-day exploits are prepared with regard to Trojans, viruses, etc. For the creation of an accurate extraction of "regular" and "malicious" patterns, there are two key prerequisites. Improved detection efficiency and a low false positive rate notices are sent to them. For the declassification of "malicious" traffic patterns as "regular" traffic patterns to be reduced, or for the number of false leads to be decreased, the detection accuracy must be higher. These parameters are used to project how far research has come in the last 20 years.

Researchers utilized the prominent open source tools like Wireshark [7], to monitor the packets while travelling over pattern analysis. Wireshark facilitates the researchers to observe protocols being processed by other devices during file access. This network analyzer poses as best indicator to identify data threat. Wireshark represent as good monitoring tool where it supports the cyber security professionals to observe the real-network capturing system. Despite this, fails to send alerts in case the strange things exist.

## **DETECTION APPROACHES**

The detection over data breaches happens through two-varied mechanisms in general [4]. They are known to be Signature-based threat identity systems and Anomalies-based threat identification systems. Most of the detection systems are obsessed with Machine-Learning, Data Mining and hybrid optimization techniques which is applicable to both detection methodologies. The mechanism of Signature-based threat identification systems are been trained over identifying known IoT attacks like virus, Trojans, Man-in-the Middle attacks etc. Whereas, in other hand, Anomalies-detection systems are thorough designed through machine-learning mechanisms to identify and detect anomalies.

The creation of various classified-based intrusion detection systems is vital to the development of the superior detection model. These detection systems' goals were achieving High Detection Accuracy Rate and Minimal False Detection Rate. It appears that the research into planning and analyzing the extraction of harmful patterns from host-based network data is a resilient endeavor. It also covers the open research problem and the necessity of taking appropriate action in light of future trends. The main characteristics of intrusion detection systems have focused on establishing as a method of functioning to look into, analyze, and discover the anomalies that existed. In order to extract features as efficiently as possible, the broad category of anomaly-based detection systems is the emphasis.

The article [6] highlights about implementation of multi-vector machine learning approaches in detection techniques and persist the importance of machine learning classifiers by comparing them. And also, analyze the results of classifiers in extracting the normal and anomalous network traffic. Herewith, the multi-vector machine learning platform designed the framework to focus on network and host activity analyses for Botnet detection. The four

types of attacks such as TCP attack, UDP attack, HTTP GET attack and DNS tunneling were analyzed from router; thermostat and camcorder devices with intent to capture user behavior scenarios from the deployment of two benchmark datasets such as CIDDs and NSL-KDD.

The five varied machine learning algorithms such as decision tree, random forest, k-nearest neighbor, extreme gradient boosting, and SVM were used to train and test the dataset against the above mentioned attacks. The Random Forest algorithm attained its betterment results from the range of 0.9994% to 0.999% in terms of accuracy, precision, recall, F1 score and AUC against these attacks when compared to other machine learning classifiers. The Rise of 'Internet of Things' [4] drives a new preamble of cyber security attacks with connected devices. The major concern about this article presented their detailed comprehensive review over IoT attacks and list out the prime advantage taken by hackers with intent to inject the known vulnerabilities through the efficient protocol by redirecting the normal operating system into unencrypted network traffic pattern.

At recent trends, the cause of DDoS attacks evolved in block chain technologies [8]. The article delivers the detailed view of DDoS attack alleviate and stated about the open research challenges in mitigate of DDoS attack presence in block chain technologies. The article suggests the strongly intend to do in future as prominent research progress in testing and detecting the real-time network traffic patterns through the application of standard dataset and big data analytics. Application of block chain security turned to be promising research in the cyber security field.

The ability of analytical tools to actively respond and resist intrusive activity helps to distinguish the classification strategy as a computationally cheap, diverse methodology for data processing, and categorized into precise classes. The training phase and the testing phase are typically the two stages in which classifier techniques evolved as a result of how feature extraction worked out in practice. A heuristic value from the trained intrusion detection data is examined during the training phase. The testing phase of the prediction process compares the derived feature from the heuristic value with actual traffic patterns. The accuracy of data classification is measured by the performance of predicting the adjacent value.

By successfully lowering the false alarms, the combined technique of classifier and evolutionary models demonstrated that it was sufficient. This helps to get a high rate of instance categorization accuracy. The simplest technique, Particle Swarm Optimization (PSO), was utilized[9] to improve the performance of Multiple Criteria Linear Programming (PSO-MCLP) as a hybrid approach with the goal of improving the accuracy of assaults detection. Data from KDDCUP99 were used for the experiment. Comparisons of the PSO-MCLP, MCLP, SVM, and C5.0 classifier approaches were made for the simulation analysis. The detection rates were 99.13%, 97.46%, 98.07%, and 98.38%, respectively. The percentage of false alarms reached 0.019%, 0.036%, 0.027%, and 0.042%. Ant Colony Optimization was developed based on the pheromone behavior of ants travelling along the intended path.

## CONCLUSION

This article acknowledges the use of anomaly detection techniques to counter intrusions. The details based on classifier-based, evolutionary-based, and hybrid techniques were also carefully described in this chapter. It also goes into how detection methods were taught to classify cases accurately by minimising the amount of false leads. This chapter established the path for cutting-edge understanding of improved optimization strategies to overcome the difficulty of cyber research. Additionally, bitcoin attacks are becoming more complex as the rate of difficulty rises, and future work would focus on developing a good system by protecting against zero-day exploits to use for study.

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## EMPLOYEES SATISFACTION TOWARDS E-HRM IN SERVICE ORGANISATIONS

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### ABSTRACT

Electronic human resource management (e-HRM) provides the information required to manage HR processes. These may be core employee database and payroll systems but can be extended to include such systems as e-recruitment, e-performance management and reward system. The system may be web-based, enabling access to remote or online and at any time. All HR processes can be supported by IT. EHRM is the term for IT supported HRM, especially through the use of web technology. Electronic human resource management (e-HRM) provides the information required to manage HR processes. This paper aims at finding out the perception level of employees regarding e-HRM in service organizations.

**KEYWORDS:** Electronic human resource management, information technology, e-recruitment

### INTRODUCTION

HR function of an organisation is responsible for complying with the human resource requirements of the organisation. As with other business functions, strategies, policies and practices have to be implemented to ensure smooth operation of the organisation and prepare the organisation in such a way that smooth operation can be guaranteed in the nearby future. Using e-HRM technology is a way of implementing these HR strategies, policies and practices. The e-HRM technology provides a portal which enables managers, employees and HR professionals to view extract or alter information which is necessary for managing the need of the organisation. Employees satisfaction is vital for smooth working of an organisation. If some changes are done in the organisation and employees are not satisfied with it then the results of those changes are not in favor of the organisation. So, in this paper employees perception is analyzed towards e-HRM.

## REVIEW OF LITERATURE

As stated by Doughty (2000), today, within the HR software market there are a myriad of HR systems, payroll, training administration, 360 degree feedback, psychological testing and competency software tools operating in their own software features. Evidence suggests that most organisations fail to recognize that nearly all software on the market today is at the foundation level of e-HR. In the views of McMahan, Snell, Gerhart and Wright (2001), HR functions can become critical partners in driving success, but to do so requires HR changes its focus, its role and its delivery systems. e-HRM (electronic human resource management) refers to the processing and transmission of digitized information used in HRM, including text, sound and visual images, from one computer to another electronic device. e-HRM has the potential to change all traditional human resource management functions. The human resource management function has changed dramatically over time evolving. Walker (2001) states that if HR technology is to be considered successful, it must change the work performed by the Human Resources Personnel by dramatically improving their level of service, allowing more time for work of higher value and reducing their costs. Many systems have been implemented by cutting HR staff, outsourcing and imposing new technology. Globetronics Multimedia Technology Sdn. Bhd. (2003) stated that the leading solution for e-HRM is System Manager, HR Manager, Time Manager, Payroll Manager, and Report Manager. According to Prasad (2003), the concept of computerized HRIS is derived as an organized method of providing information about human resources, their functioning, external factors relevant to managing human resources. Large organisations generally install e-HR because it enables them to collect, store, process and manipulate large amount of data inputs, reduce costs of maintaining human resource data and provide accurate information about human resources anytime and anywhere. In the views of Armstrong (2003), e-HR provides the information required to manage HR processes. These may be core employee database and payroll systems but can be extended to include such systems as recruitment, e-learning, performance management and reward. The system may be web-based, enabling access to remote or online and at any time. The information provided by the e-HR process can be communicated across organisations. Kettley and Reiley (2003) states that a computerized human resource information system consists of a fully integrated, organisation wide-network of HR-related data, information, services, databases, tools and transactions. Technology has only recently developed in a way that enables e-HR to make its mark, especially the introduction of corporate intranets and web-enabled HRIS. The nature of the development

path, however, varies considerably from organisation to organisation. Foster, Hawking and Stein (2004) describe that the application of the internet to the Human Resource function (e-HR) combines two elements: one is the use of electronic media while the other is the active participation of employees in the process. These two elements drive the technology that helps organisations lower administration costs improve employee communication and satisfaction, provide realtime access to information while at the same time reducing processing time. This technology holds out the promise of challenging the past role of HR as one of payroll processing and manual administrative process to one where cost efficiencies can be gained, enabling more time and energy to be devoted to strategic business issues.

### **OBJECTIVES OF THE STUDY**

The objective of this paper is to study the satisfaction level of employees towards e-HRM in service organisations.

### **RESEARCH METHODOLOGY**

The present study is an exploratory cum descriptive research. In order to achieve the objective, following research methodology is used in the study:

- i) Sample and sample profile
- ii) Instruments for data collection
- iii) Tabulation and codification of data
- iv) Statistical analysis

### **Sample**

The sample size of the research consisted of 100 employees of service organisations. These 100 employees are from banking sector and 25 employees are taken from each bank. To study the employees satisfaction towards e-HRM, demographic variables (organisation name, age, sector, experience, income, type of organisation and gender) are included in the study. Convenient sampling technique is adopted in order to choose the respondents.

### **Instruments for Data Collection**

To achieve the objective taken up in the study, primary data is used. For primary data collection, structured questionnaire is developed consisting of 21 items.

### **Tabulation and Codification of Data**

To achieve the objective of employees satisfaction towards e-HRM, a 5-point scale (highly satisfied, satisfied, indifferent, dissatisfied, and highly dissatisfied) is used. A score of 1 for the response 'highly dissatisfied', 2 for 'dissatisfied', 3 for 'indifferent', 4 for 'satisfied', 5 for 'highly satisfied' is assigned. Initially factor analysis is applied to the raw data of employees satisfaction.

### **RESULTS AND DISCUSSION**

In order to understand the study, certain statements are developed. The details of these statements are given below:

- S1: Improvement in administration and efficiency
- S2: Improvement in client orientation and service
- S3: Improvement in HR's strategic orientation
- S4: e-HRM is a cost reduction programme
- S5: e-HRM reduces administrative work
- S6: e-HRM reduces administrative staff
- S7: Helps human resources department to get a clean profile of the employees
- S8: Employees are experiencing more skills with the help of e-HRM
- S9: Employees get updated news of the organization dynamics
- S10: Employees take part in online discussion
- S11: Employees are self-initiators of their own career management direction
- S12: Employee and managers self-manage employee management
- S13: Helps HR managers to become more efficient in their working
- S14: Internet recruiting is a faster means of communication
- S15: e-HRM saves time or it is time efficient
- S16: e-HRM does data management of all the employees effectively
- S17: Employees concentrate on the strategic aspects of the job as e-HRM relieves them with their routine work
- S18: Adaptability to client increases after applying e-HRM
- S19: Security of data exists in e-HRM
- S20: e-HRM supports multi-language
- S21: e-HRM has more dynamic workflow in the business process and productivity

## CONCLUSION

From the analysis it can be concluded that respondents from different organisations have different opinion towards all the factors. Respondents of different age groups have same opinion towards faster communication, employee management and time efficiency while they have different opinion towards improvements, benefits, and client oriented. Respondents of different sector have same opinion towards faster communication, employee management and client oriented while they have different opinion towards improvements, benefits and time efficiency. Respondents of different experience have same opinion towards faster communication, employee management and client oriented, while they have different opinion towards improvements, benefits, time efficiency. Respondents of different income groups have same opinion towards faster communication, employee management while they have different opinion towards improvements, benefits, time efficiency and client oriented. Respondents of different type of organisations have same opinion towards employee management while they have different opinion towards faster communication, improvements, benefits, time efficiency and client oriented. Respondents of different gender have same opinion towards improvements, time efficiency and client oriented while they have different opinion towards faster communication, benefits and employee management.

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## DIGITAL HUMAN RESOURCES ( DIGITAL HR)

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### ABSTRACT

The article reviews HR-Digital, a new area in HR-management that has been actively implemented recently through the use of HR digital technologies. The work analyses the tasks of HR-managers in the digitization environment, digital technologies that will speed up a work flow for HR and help to evaluate an economic effect of HR-events. A focus is on the characteristics that today's organization must take into account to start using and implementing a digital HR-technology.

The Digital (HR) Human Resource is an advancement in digital technology for HRM. The DHRM's operational procedure will be supported by IT as well as mobile, electronic, and social media platforms (information technology). All of these tools will increase HR's importance in the current environment. The ability to perform human job using software, a variety of apps, and the internet is a feature of digital HR. Through the effective use of Social, Mobile, Analytics, and Cloud (SMAC) technologies, Digital Human Resource will enable organisations take control and responsibility in order to make sure that internal assumptions and expectations are what motivate the appropriate behavior.

**KEYWORD:** HR-digital, HR-management,HR digital technology, Digitization, HR software,analytics, digital human resource,information technolo

### 1.INTRODUCTION

The future of HR technology and its trends for 2023 have generated a lot of discussions. Our interactions with technology and how we operate have significantly changed in the wake of the COVID-19 epidemic. How we communicate and collaborate is now governed by technology. As a result, we

can easily cooperate, access a lot of information at once, and complete creative tasks.

We are now entering an era, however, as a result of this fast transition to digital communicating.

Organisations are seeking ways to streamline processes and systems and improve their efficiency, effectiveness and flexibility in order to exist in the modern digital environment. These technological technologies have the potential to have a big impact on the workplace and employee experience when properly applied.

## **2.HRM AND DIGITAL HRM**

In the current situation, business is carried out in order to fulfill the requirements and desires of global trade. Additionally, services, management skills, and technological transfer, as well as the transfer of goods across nations, all occur. The world has become negligible due to globalization in terms of communication methods. With further innovation, the economic and financial systems around the world have been merged.

Due to the demands of the company, digital human resource management plays a key role in today's virtual era as compared to traditional human resource management. For greater organizational performance, many organization require extremely effective digital human resource management.

The human resources organization should indeed support digital transformation in HR and update its policies to reflect the need for it. It is difficult for Hrm to adapt individuals to a digital transformation and negotiating with difficulty while shifting the business operations and its progress to a digital platform. In an Internet-based Society, it would be really beneficial for the human Resource Management Department to recognise and analyse the relationship between Human Resource and Information Technology. In order to improve HR performance and incorporate information technology, the analysis must be applied. Any organization's efficiency and innovation variables will be well managed because to digital technology adaptation.

## **3.DIGITALHRM COMPONENTS**

Human resource management has adopted technology to survive in the competitive digital world of today. The traditional form of human resource management must give way to digital technology. The transition of HRM requires the following components.

### **a)Digital workforce**

The current generation is referred to as the "digital workforce" in the era globalization; they have platform devices, and web-based services and applications have always attracted their

daily life. The company must have these employees in order to interact with a digital employee, and it must be digital. Consequently, design thinking, media, behavioural economics, and system analytics are all integrated into digital HRM.

#### **b) Digital work and task**

The work in organization has taken huge transformation utilizing a digital platform in works as well as in management. Every organization in this present scenario must make integrate digitalization in the work process which will help in reducing manual work. Organizations also need to use digital tools and media to connect and communicate with the employee. Work and task in organization also need to organize digitally.

#### **c) Digital Support Management**

This involves organising, carrying out a task, and utilising digital technologies to support HRM tasks including processing payroll, awarding and compensating employees, managing performance, providing training and development, etc.

#### **d) HR technology updates**

(Saini, 2018) Through a digital networking system, there is a substantial shift in the pattern of traditional human resources toward digital human resources. Mobile device-based operations have replaced more traditional ones in the human resources sector. Mobile and social functionality is considered a identifying standards for hiring decisions.

### **4. BENEFITS OF DIGITAL HR**

#### **a) increased skill retention**

Limited of chance of promotion is one of the main factors in people quitting an organisation. People want to grow in their professions, and when businesses demonstrate that they care about employees' careers, good employees are more likely to stay with the company longer, lowering recruitment expenses.

#### **b) improved coordination between management and firm strategy**

Businesses can better align themselves with the company strategy with the aid of business intelligence tools like workforce planning and people data. For instance, data could help an organisation decide which employees already have the necessary abilities or which ones need to be upskilled in order to reach a new objective like expanding to a different category of services.

**c)improved decision-making with relevant information and data**

The Covid-19 crisis has shown us the value of making decisions based on data. Technology's strength and analytical skills give HR all the data they need to make wise decisions to boost employee productivity, efficiency, and effectiveness.

**d)substantial enhancement in employee satisfaction**

Satisfied employees are more productive than negative ones, and there are countless studies that prove this. Organizations experience a sense of accomplishment and purpose when they show how valuable their people are through optimised procedures.

**e)Reduced hr cost**

Long-term time and resource savings are made by organisations who invest in digitising HR as a result of streamlined and improved operations. Additionally, having visibility throughout your workforce allows you to boost internal mobility while spending less on external hiring.

**f)Optimizing of manual process**

Working with multiple duties can be automated, reducing the possibility of human error and improving the management of crucial factors like compliance. The HR team may then concentrate on projects that are strategic and have the most business benefit.

**g)awareness and understanding of the workforce**

Having visibility over a staff that is spread out among several sites might be challenging. Technology, on the other hand, links disparate systems and gives you total visibility over your workforce. This visibility can also be given to managers, who can then focus on things like the teams' training and skill requirements.

**h)encouraging HR systems**

Consolidating entails a unified source of truth and a consistent user interface. Employees are more likely to engage and finish activities without jumping between programmes or being perplexed by functionality if there is a single platform for all of their HR needs.

## 5.CONCLUSION

Digital HR is regarded as being a fundamental requirement for commercial organization. When it comes to adopting digitization, every business organisation still has a ways to go. A good working relationship between management and its employees is maintained with the use of digital HR. The development of a DHRM strategy will improve organizational performance.

To increase efficiency, each firm should create a digital strategy. DHR is currently regarded as a more relevant and expanding research issue as well as a significant challenge for a commercial organisation. Organizations can maintain their performance and employees' quality standards for the organization's efficient operation by utilising DHR techniques and other technology such as social media, the internet, artificial intelligence, and other tools.

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## **A STUDY ON AUTOMOBILE FINANCE FUNCTIONING THROUGH DIGITAL MARKETING.**

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### **INTRODUCTION:**

The banking industry plays an important role in the economic development of a country. It supplies the lifeblood-money that supports the growth in all the industries. Growth of the banking sector is measured by the increase in the number of banks' branches, deposits, credit, etc. In analysing the banking sector, it indicates the direction in which the country's economy is moving. The success of economic growth of a country mainly depends on the effective performance of banks. Indian capital market is highly dependent on the growth and prosperity of banking sectors.

The Indian auto industry is one of the largest in the world. The Two Wheelers segment with 80 per cent market share is the leader of the Indian Automobile market owing to a growing middle class and a young population. Moreover, the growing interest of the companies in exploring the rural markets further aided the growth of the sector. The overall Passenger Vehicle (PV) segment has 14 per cent market share.

India is also a prominent auto exporter and has strong export growth expectations for the near future. Overall automobile exports grew 15.81 per cent year-on-year between April-February 2017-18. In addition, several initiatives by the Government of India and the major automobile players in the Indian market are expected to make India a leader in the Two Wheeler (2W) and Four Wheeler (4W) market in the world by 2020.

### **Finance:**

Finance can also be defined "as the science of money management". Financing is the act of providing funds for business activities, making purchases or investing. Financial institutions and banks are in the business of financing as they provide capital to businesses, consumers and investors to help them achieve their goals. The use of financing is vital in any economic system, as it allows companies to purchase products out of their immediate

reach. Finance can be broken into three categories namely public finance, corporate finance and personal finance.

Lending is about transparent process, best practices and clear, well defined norms and rules. The lender and borrower has a responsibility towards each other from the point a customer first interacts with a lending institution, online or in person. This responsibility is done through the processes of documentation in applying for loan, sanction of loan, its dispersal and finally the repayment schedule and paying off the loan.

This study seeks to set the standards of responsible lending in India, by identifying the key parameters. It also reflects the state of consumers finance with respect to lending practices in the country and improve the overall quality of services towards customers. For the purposes of this study, therefore, we selected the following four parameters through which the current state of play and lending standards will be measured and set for lenders in India.

- Loan Application Process
- Lenders Public Information
- Fees and Charges
- Loan Servicing

It covers a range of possible interventions, including the provision of information, developing consumers' ability to use that information, formal requirements for responsible behaviour of the lenders, consumers and regulatory requirements.

#### **Loan Application Process:**

It is must for the lenders to have easy and simple application process. It increases the chances of borrowers to apply and being financially.

At the same time, their responsibility as a lender should maintain the same and all the necessary checks must be done.

#### **Lenders Public Information**

It is the lender's duty to place all information, facts, terms and conditions in front of the customer to help the borrower better understand the process. Information should be made

accessible to the extent possible.

#### **Fees and Charges**

The fees and charges must be transparently disclosed. Every charge should be explained to the customer before signing of loan contract. Lenders should, in a well-defined

and transparent manner, lay down the fees, charges and penalty provisions. This builds a trust in the relationship and helps in hassle-free loan processing and its execution.

#### Loan Servicing :

Customers want their queries to be addressed on a real time basis. Most lenders, now-a-days have dedicated call centres for this purpose. Rapid technological changes have proven customer value at the heart of modern banking operations.

This study focuses on borrower's perception only, and measures their responsibility towards lenders. This study reveals Lending as how fairly and transparently are the lenders dealing with their consumers.

#### Automobile Loans, Loans and Consumer Durable Loans.

The project involved data collection through questionnaires; applying quantitative research tools and to convert the data collected in ranks. As a part of the analysis, weights were allotted to the answers based on the criteria of responsible lending practices. Based on the scores lending companies were placed under four categories: Excellent, Good, Standard and Regular.

In India there were 300 million (24 percent of the population) smart-phone users in 2017, next only to China and exceeding most developed countries including the USA. A study by US-based networking solution giant CISCO, reveals that in India, the number of smart-phones is expected to grow strongly to over 650 million by 2019.

Demand growth for consumer durables has been accelerating with rising disposable incomes and easy access to institutional finance. An estimated 13 million (two percent of the population) first-time eligible borrowers are added every year—a statistic which exemplifies the rapid rise of the consumer finance and the organised retail industry. The consumption spree of the Indian middle-class, which will swell to 583 million in the next 15 years, could reshape global markets. McKinsey Global Institute in a report has suggested that if India grows at the current rate, it would be the 5th largest consumer market by 2025.

#### **Research methodology:**

#### **Objectives of the study:**

- a) The purpose of this paper is to find and examine the factors which influences the disbursement of automobile finance through internet.
- b) To identify how much more Consumers will satisfy their needs by being in home itself.
- c) To explore how the people apply online and getting instant credit approval.
- d) To analyze how the verification process is carried out and a view on its reliability.
- e) To find the eligibility criteria for availing loan.
- f) To identify the required documents for getting loan.

### **Types of Research:**

Descriptive research is used in this study in order to identify the factors influencing the automobile finance through internet and determining customer's satisfaction level. The method used was questionnaire and interview the loyal customers.

### **Sources of data:**

The study relies on primary and secondary data. The data collected for the analysis is from the primary and secondary data published in the journals, magazines and various websites.

### **Sampling unit:**

The study population includes the customers of bank and sampling unit for study was individual customer.

**Sampling size:** 50 respondents.

### **Data analysis and interpretation:**

Table 1: Preference of the customers for the loans;

Kinds of Loan	No. of Respondents	Percentage (%)
Personal loan	14	28
Consumer loan	11	22
House loan	10	20

Vehicle loan	8	16
Educational loan	5	10
Others	2	4

Interpretation:

From the above table, it is clear that majority of the respondents have taken personal loan and consumer loan and less respondents prefer educational loan and others.

Table 2: Range of amount of loans:

Term of loan	No of Respondents	Percentage (%)
Less than 1 year	7	14
1 to 3 years	19	38
More than 3 years	24	48

Interpretation:

Study reveals that majority (48%) of the respondents have taken loan period more than 3 years, 38% of the respondents have taken for the period ranges 1-3 years and the respondents for less than 1 year is 14%.

Table 3: What prompted the customer to take loan from banks?

Reason for taking loan	No of Respondents	Percentage (%)
Need	22	44
Nominal rate of interest	10	20
Less formalities	8	16
Easy repayment	5	10
Others	5	10

Interpretation:

Majority (44%) of the respondents getting loan for their purpose and need, while 20% get loan for reasonable rate of interest.

Table4: Average time taken for processing of the loan:

Processing time	No of Respondents	Percentage (%)
Less than 7 days	30	60
Between 7 to 14 days	12	24
More than 14 days	8	16

Interpretation:

Majority (60%) respondent’s opinion that bank take processing time for loan is less than 7 days, which is quite nominal.

Table 5: Ranking of facilities provided by the bank:

Rank the facility	No of Respondents	Percentage (%)
Above average	18	36
Average	26	52
Below average	6	12

Interpretation:

Majority (36%) of the respondent’s opinion about the facilities provided by the bank is above average.

Table 6: Customer’s ranking of servicing of the bank:

Rank the customer service	No of respondents	Percentage (%)
Excellent	9	18
Good	28	56
Average	7	14
Poor	6	12

Interpretation:

Majority (56%) of the respondents rank the banks service as good only.

Table 7: Customers perception towards online loan facility by the bankers

Perception	No of respondents	Percentage (%)
Easy	33	66
Difficult	17	34

Interpretation:

Majority (66%) perception is easy of getting loan through online itself.

Table 8: Customers preference of bank for taking online loan.

Preference	No of Respondents	Percentage (%)
Private banks	22	44
Public banks	10	20
NBFC	18	36

Interpretation:

Majority (44%) is preference to get loan from private banks only because of less documentation and less time. Pressing a button on mobile phone is enough.

Table 9: Customers preferential mode for repayment of loan.

Payment mode	No of Respondents	Percentage (%)
Credit card/ Debit card	20	40
Net banking/ Mobile banking /NEFT	24	48
At bank step	6	12

Interpretation:

Majority (48%) of respondents likes to pay through mobile banking from home itself and 40% likes to pay through their cards and only 12% is going to bank for paying (illetrates).

**Findings of the study:**

1. Majority (28%) of the respondents having personal loan.
2. Most (as per study) of the people prefer to take long term loan.
3. There is very simple procedure for loan is followed by NBFC and private banks when compared to public banks.
4. Easy repayment and very less formalities are the main factor determining customer's selection of loans.
5. Quality of services provided by the staff is satisfactory.
6. Customers are satisfied with the mode of repayment of instalments.
7. Average time taken for the processing of loan is less.
8. Less documentation too.
9. Majority respondent's view is easy of getting online loan (after checking CIBIL credit rate score).
10. Loan approval and sanctioning is also done through online itself. It saves time.

**Suggestion:**

1. All the banks should adopt modern methods of banking like internet banking, credit card, ATM etc.
2. The banks should plan to introduce new schemes.
3. The banks should plan for expansion of branches.
4. The banks should improve the customer services to a better extent.

**Conclusion:**

This study finds that banks consumer lending reflects not only demand factors and supply influences related to interest rates, taxes and non banking financial companies, but also non rate credit conditions.

## DIGITAL MARKETING

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### **Abstract:**

India's constantly expanding digital market is proof that digitalization is progressing quickly.

In the future, customers may use the internet to make purchases from stores close to their homes. Marketing professionals utilize digital marketing as a means of electronic communication to promote their products and services to potential customers. The ultimate goal of digital marketing is to cater to consumers and give them the opportunity to interact with the product through digital media (Vishal Midha, 2012). This paper clarifies the idea of online marketing and contrasts it with traditional marketing methods.

**Keywords:** Digital Marketing, Merits and Demerits

### **Introduction :**

Also known as "Digital Marketing," "Internet Marketing," or "Web Marketing," online marketing Online marketing is the term for promotional activities that use the Web and email to promote direct sales through e-commerce. The word "online marketing" refers to the online presentation of a company's name, goods, and services in order to foster long-lasting relationships with clients.

In addition to a physical market, online marketing provides a new marketplace where products can be purchased and delivered. The main advantages of online marketing for marketers include its availability around-the-clock, 365 days a year, reduced costs, more

efficiency, ability to encourage more purchases from clients, and enhanced customer service.(Skyrme, 2001; Kotler, 2000)



### VARIOUS COMPOENTS OF DIGITAL MARKETING :

- ❖ **Search Engine Marketing:** A search engine is an online tool that aids users in finding the information they need. Search engines include Google, Yahoo, Bing, Baidu, and others. Any effort that raises a user's website's ranking in a search engine is referred to as search engine marketing. Search engine marketing comes in two flavours: sponsored search and search engine optimization (SEO).



- ❖ **Email :** Email continues to be a channel that offers medium to high returns on investment for businesses for a number of reasons, but one of them is email's adaptability. Even if email may not be the most recent technology, you can still use it to implement the newest content marketing trends, like personalisation and automation, without having to cut back on your marketing budget.

It's hardly surprising that 73% and 63% of B2B marketers, respectively, agree that email is their top tool for generating leads and driving revenue, given that email also has the capacity to support other marketing objectives.

- ❖ **Social Media** : Social media marketing is on this list for some very worthwhile reasons, but this isn't just about social media users reaching the 3.81 billion mark. From being a channel that people use to establish personal connections, social media has evolved into something grander, bigger, and better than what it was originally envisioned to be.
  - **Face-book**: It is the number one social media platform. A company can promote their product and services on Face-book.
  - **Linked In**: Professional write their profiles on LinkedIn and can share with others. The company also builds their profile and LinkedIn connect these two dots companies and professionals.
  - **Google+**: It is Google's social network; user can easily connect based on their common interest and friendship.
  - **Twitter**: Its strategy is to increase brand awareness and sales, attract new followers, and lead and boost conversions.
- ❖ **Online Display Advertising**: Traditional marketing involves placing a billboard or banner advertising a company on either side of the road, as well as placing an advertisement in a magazine or newspaper. An online variant of it is display advertising. Today, a marketer can accomplish the same goal by using online display advertising. Display advertising comes in a variety of forms, including banner ads, interactive ads, rich media, and video commercials. Due to the graphics in the adverts, display advertising is excellent at catching the eye.

**Traditional Marketing VS Digital Marketing:** The most well-known type of marketing is traditional marketing. Due to its duration, traditional marketing is familiar to the majority of people. Ads in a newspaper or magazine are a tangible illustration of conventional marketing. A billboard, brochure, radio or TV advertisement, poster, etc. are also included. This method of marketing is not digital. While digital marketing reaches customers through a variety of digital media. The following comparisons are provided:

## DIFFERENCE BETWEEN TRADITIONAL AND DIGITAL MARKETING

### Digital Marketing

- It is more cost-effective.
- It is fast and efficient for brand building.
- It is measurable.( Google Analytics)
- **Real time results**
- What people think about us.
- Always Online 24X7 .

### Traditional Marketing

- It is not cost-effective.
- It is not so good for brand building.
- It is difficult to measure.
- Very difficult to know what are the people think about us.
- Not Always some times.



### Advantages of Digital marketing:

The main advantage of digital marketing is that a targeted audience can be reached in a cost effective and measurable way. Other digital marketing advantages include increasing brand loyalty and driving online sales.

- **Global reach:** For a minimal investment, a website may help you discover new markets and conduct business internationally.
- **Less expensive** – Compared to traditional marketing strategies, a well-planned and well-targeted digital marketing campaign can reach the relevant clients for significantly less money.
- **Results that are traceable and quantifiable** - evaluating your online marketing with web analytics and other online measure tools make it simpler to determine the success of your campaign. You can learn in-depth details about how visitors interact with your website or react to your advertising.
- **Personalization** : enables you to welcome site visitors with pertinent offers if your customer database is connected to your website. You can better define your consumer profile and market to them as they make more purchases from you.
- **Openness** – by participating in social media and using it wisely, you can develop client loyalty and establish a reputation for being approachable.
- **social currency** - being passed from user to user and becoming viral.

- **Improved conversion rates** : A website puts your customers just a few clicks away from making a purchase, which increases conversion rates. Digital marketing has the potential to be seamless and quick, unlike conventional media that need consumers to get up and make a phone call or visit a store.

#### **Disadvantages of Digital marketing :**

- **Skills and training** - You will need to ensure that your staff have the right knowledge and expertise to carry out digital marketing with success. Tools, platforms and trends change rapidly and it's vital that you keep up-to-date.
- **Time consuming** - tasks such as optimising online advertising campaigns and creating marketing content can take up a lot of time. It's important to measure your results to ensure a return-on investment.
- **High competition** - while you can reach a global audience with digital marketing, you are also up against global competition. It can be a challenge to stand out against competitors and to grab attention among the many messages aimed at consumers online.
- **Complaints and feedback** - any negative feedback or criticism of your brand is can be visible to your audience through social media and review websites. Carrying out effective customer service online can be challenging. Negative comments or failure to respond effectively can damage your brand reputation.
- **Security and privacy issues** - there are a number of legal considerations around collecting and using customer data for digital marketing purposes.

#### **CONCLUSION**

People are investing more money in online content, and businesses who find it difficult to incorporate this fact into their advertising plan must swiftly adapt.

The amount of time people spend online each year increases, and as a result, the role that digital platforms play in their lives also increases.

The promotion of digital media is the primary goal of digital India.

Because customers may utilise digital platforms from anywhere in the world at any time, businesses must switch from traditional to digital marketing strategies.

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## E- ACCOUNTING

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### **ABSTRACT:**

E-accounting is the application of internet and online technology to commercial accounting. E-accounting is the "electronic enablement" of legal accounting and traceable accounting operations, which were formerly manual and paper-based. This is similar to how e-mail is an electronic version of conventional mail. E-accounting involves carrying out routine accounting tasks, conducting accounting research, and preparing for and educating in accounting using various computer-based/internet-based accounting instruments, such as sophisticated apparatuses units, various internet resources, international web-based materials, institute and friend databases that are internet-based, web joins internet-based accounting software, and electronic money connected spreadsheet devices to deliver efficiency.

It helps any sort of company cut costs by saving a great deal of time, effort, and paper. Technology is advancing daily, and new accounting software is constantly being developed. Every corporation needs to perform accounting, which is often known as the "mirror image of the business."Traditional accounting is a postmortem process since it is a very time-consuming accounting procedure and requires waiting for the year's accounting to be finalised in order to get results. Compared to contemporary accounting methods, we can use computers to quickly obtain findings.

**Keywords:** E-accounting, web-based materials

### **Introduction**

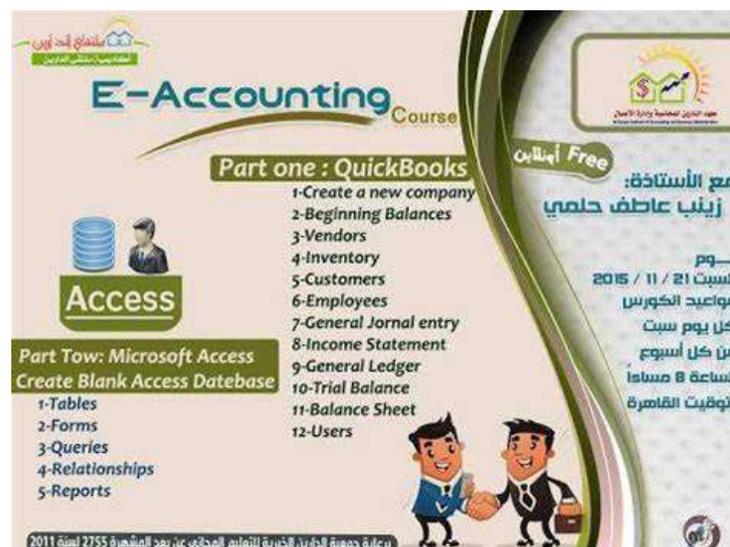
E-accounting is the use of online and internet technology in the accounting process for businesses. E-accounting is the "electronic enablement" of legal accounting and traceable accounting operations, which were formerly manual and paper-based. This is analogous to how e-mail is an electronic version of traditional mail. E-accounting entails using computer-based/internet-based accounting tools, such as digital toolkits, various internet resources, international web-based materials, institute and company databases that are internet-based,

web links, internet-based accounting software, and electronic financial spreadsheet tools to facilitate efficient decision-making.

In order to enable businesses concentrate on their core competencies and avoid the hidden costs associated with traditional accounting software, online accounting through a web application is often built on a straightforward monthly payment and zero administrative approach.

E-Accounting is a recent breakthrough in the accounting industry. The source documents and accounting records in an electronic accounting system reside digitally rather than on paper. E-Accounting may mark the start of a new era in which the world will open its arms to India with the belief that "India is the location which can give the finest." This means that e-Accounting has come to India with a wide range of opportunities.

For serious accounting professionals, e-accounting has become crucial. Numerous scenarios that call for research into the benefits and drawbacks of e-accounting have been produced by the rapid evolution of information technology. The accounting and financial information industries are being completely transformed by technologies for data collection, analysis, communication, and manipulation. The idea of electronic accounting is used internationally. Many businesses have begun using electronic accounting. E-accounting is supported by the International Accounting Standards Board as well. It is creating new standards that can be applied to worldwide e-accounting. The International Federation of Accountants is looking for high-quality accounting education and the advancement of accounting.



**Characteristics of E-Accounting:**

The following traits of e-accounting, which all contribute to a significantly more effective accounting process, can be used to identify it.

- Having internet access to popular software-based office tools
- Multipurpose access
- Multi-site access
- No system administration is necessary for end users
- Very affordable to offer services to a huge number of customers.

**Need of E-Accounting**

E-accounting assists firms in maintaining their accounting software and financial data in a safe, secure environment while granting authorised users real-time access regardless of their location or computing platform. This is made feasible by application software that allows users to access financial information with varying levels of permission and password protection and is hosted on a distant, safe, and secure environment by an ASP (Application Service Provider). Define need of E-Accounting..

- Employing e-accounting eliminates the training and experience of internal bookkeepers.
- If e-accounting is used, problems like employee turnover, vacations, and absenteeism won't exist.
- The accountant and business owner won't have any communication issues because of workload demands.
- Business organisations have enough time to focus on generating money rather than wasting it on payroll and accounting tasks.
- They're portable, too.
- Nearly any computer with a broadband connection can access the company's records.

**Standard Accounting Software:**

There are several accounting software options on the market now that offer all accounting capabilities as the need for computerised accounting through ready-made software arose.

Even yet, every day new accounting programmes are developed to meet the needs of business associations. In contrast to the accompanying conventional accounting software now on the market, A 33 software expert is constantly working to build fantastic accounting software and has to deliver all benefits and new concepts, but that software professional can only provide half of those benefits.



1. Tally
2. EX Next Generation
3. Wings
4. Total
5. FACT
6. WinCA
7. Quiken

#### **Uses of E-accounting:**

- Accounts payable
- Accounts receivable
- Payroll
- Job costing
- Financial write-up and reporting

- Bank and record reconciliations
- Quarterly assessment reporting
- Compliance reporting
- Tax return preparation
- Internal money related expert
- Provide understanding, courses of activity
- Facilitate future arranging and development.

### **Benefits of E-Accounting:**

- No requirement for internal clerks, preparation, or experience.
- There are no communication issues between the business owner and the bookkeeper.
- The cost is little.
- Time and money are saved.
- Downloading and installing software are not necessary.
- Increase financial management by switching from paper to electronic accounting software.
- Transactions can be submitted directly to the online accounting application after they have an impact on the organization's bank record.

### **Problems in E-Accounting:**

There are some problems in application of E-accounting:

- At the moment, high-speed broadband internet connections are necessary in order to use the accessible online office suites.
- The company's whole data is stored on a remote server, although frequent backups can be made.
- Online office suites lack some functions that are included in e-accounting.
- In order to send and receive changes, there must always be a network connection.
- It becomes more challenging to work offline due to internet dependence.

## **CONCLUSION**

A recent trend in accounting is e-accounting. Every document and record in this system exists digitally rather than on paper. E-accounting is supported by all significant institutions and organisations on a national and worldwide level. In other words, the presenting of

financial statements has grown simpler and faster thanks to electronic accounting techniques. On the other hand, the idea of an electronic audit has been advanced by conducting audit activities in an electronic setting using electronic entries and documents. Although the main issues with e-accounting include data security, broadband speed, internet access, network connectivity, etc. As a result, Indian Chartered Accountants, who are professionals, have complete faith in the work process, guarantee service integrity, uphold professional ethics, and inspire customer trust in order to build lasting business relationships. Therefore, in the current environment, e-accounting is essential for both urban and rural development.

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## IMPORTANCE OF ICT AS A DISCIPLINE AND ITS USES IN EVALUATION & RESEARCH

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### ABSTRACT

According to John Dewey, “ If we teach as we taught yesterday, we rob our children of tomorrow”. As, the world is changing rapidly, needs and demands of updating education system of a country is required to change. Once upon a time when learners used to learn in open environment under trees and the method of teaching was verbal presentation where learners used to memorize the content. These traditions were relevant according to that duration, later in medieval period, people updated their teaching and learning method and started using tree leaves for writing, engraving on the metals and rock. Are these methods relevant for 21<sup>st</sup> century? Obviously, the answer is no. The thing is, we have seen continuous changes in educational system with the usage of technology to improve the process of education. Now, students need not to be inactive and they need not be totally dependent on teachers. Use of ICT tools like audio, video, pictures, multimedia, internet, graphics, animations, 3-D tools, etc. has made teaching and learning easy. Including ICT in education is today’s requirement and teaching it as a discipline will bring improvement, So, in this theoretical study, we will focus on importance of ICT as a discipline and we will learn about uses of ICT in evaluation and research.

**Keywords:** ICT as discipline, Evaluation, Research, Teaching and Learning, Education, Technology.

### INTRODUCTION

Use of technology in education is a wide concept, it takes usage of human resources as well as non-human resources. Students are using more and more technological sources and adapting these changes is little bit tough for teachers and parents. If we know how to use technology in good way then technology is our friend otherwise it will become a bad

addiction. So, ICT is very important in learning process of students. Educational technology focuses on the continuous development of learners and it is a better technique or a better way for effective learning. Using audio-video aids for direct teaching will make learners participate actively in classroom. Using projectors, audio-video tools, educational software, informal technology, communication technology, instructional technology, etc. will convert basic and boring concept into interesting concept.

### **Importance of ICT as a Discipline and its uses in Evaluation & Research**

#### **ICT as a Discipline**

Inclusive education in inclusive classroom is general education in which students with different needs, from diverse background, with or without disability learn together. In such classrooms, teachers understand the needs of learners irrespective of class, color, gender, disability, learning styles, race, language, etc. As a matter of fact, teachers live up to these physical and social needs. Now, imagine using ICT in such classrooms, it will make learning more effective, interacting, interesting and easy. It will provide right education for all. As, it has options like on-screen keyboards, joysticks, speech to text options, sensory enhancers and screen readers, etc. which will be beneficial for children. Using technology in education has been accepted world widely as a discipline. There are various disciplines of educational technology. Let us discuss in detail:

#### **1) Information Technology:**

With the help of machines and technologies, information technology generates information. Through the use of computer, information can be organized, stored, published in form of pictures, graphic text, numbers, sound using computer software to convert, store, process the information securely and safely.

In the field of education, these new technologies has challenged the traditional teaching and learning methods. ICT is an important field and it has impacted educational curriculum in better way.

#### **2) Communication Technology:**

With the help of equipment like programs, hardware, software, etc. the process of communicating with the technology is communication technology. For example, if we are confused about any content or topic related to syllabus, we can refer to different websites,

educational channels, blogs with the help of internet to clear our doubts. Communication technology helps in making decision quickly as it responds quickly and it provides information from all over the world. So, it has provided good opportunities in the field of education.

### **3) Information and Communication Technology:**

We can create, collect, communicate, process information with the help of digital platforms or multimedia by using information and communication technology (ICT). In the field of education, students and teachers got many perks because teaching and learning has become productive and substantive. It has ameliorated the whole education system.

According to UNESCO, “The scientific technological and engineering disciplines and the management techniques used to handle transmit information with men and machines”.

### **4) Instructional Technology:**

To get some specific information or knowledge about any content, instructional technology helps the learner for self learning. It makes learner independent and for making learning effective, it provides the learner to produce destined type of responses. In education, instructional technology helps in maintaining attendance records, presentations, charts, posters, instructional guides, quizzes, models, etc. So, it is better option as students can elucidate their concepts. The application of knowledge and skill is also bucked up by this procedure. It also builds certainty and gratification among students.

So, ICT is useful in educational system as it gives professional and technical training by including specialized programs. It is easy for all age groups to access technology easily, as it is very easy to learn basics of technologies. Teachers are actively engaged in its usage to make teaching more effective. Using smart boards, white boards, and projectors improves learning experiences. Availability of e-libraries has also made learning content available easily, we don't need to roam here and there as we can access content through surfing on internet.

Since, ICT has important role to enhance better education in every field, the capability of ICT is providing proactive environment to learners. Now a days, ascension of AI tools are in trend, Chat GPT is in trend these days as it is helping students to clarify their doubts online through chat. It's advantages will be come in limelight with its usage, what I meant to say is ICT is offering wonderful platforms to students where they can ask questions,

learn new and updated information, they can collaborate and interact with other students and teachers from all over the world, they can explore new piece of information for their personal and professional growth and lot more benefits.

ICT is useful in Evaluation and Research as well. It has uses in other fields as well but, we will discuss in detail about its uses in mentioned field only.

### **Use of ICT in Evaluation:**

Evaluation is use to collect, analyze and interpret the information to check what learners have achieved. So, it is a systematic process. To fulfill the educational objectives, evaluation is done continuously. There are different ways of evaluation, we will discuss about three main types:

#### **1) Formative Evaluation:**

This type of evaluation is done during teaching to identify the performance of learners. Based on learner's performance, teacher can change teaching methods or teaching materials. Results of formative evaluation lead to necessary adjustments.

Formative evaluation can be done with the help of ICT Tools like Google classroom, Edmond, etc. Teacher can test individually and will find solutions accordingly. Students with different needs will be able to participate comfortably. Feedback to students will be given as soon as possible.

#### **2) Summative Evaluation:**

Summative Evaluation is done at the end of the program or course. We have seen during pandemic about the possibilities of online examination. So, in this type of assessment we judge the learner's overall performance. Short answer type questions, long answer type questions, online viva, online oral tests, questionnaire, interview, etc. can be conducted. It will generate motivation and interest among learners and will benefit them in their studies. It will also develop their high order thinking skills and technological related literacy skills.

#### **3) Diagnostic Evaluation:**

This type of evaluation is conducted to check the previous knowledge of learners. Generally, it is done before starting a new topic or new chapter. The goal is to check learner's thinking ability, current knowledge and previous knowledge so that teacher can

proceed further accordingly. As per the learning levels of students, teacher organizes activities. Teacher can utilize ICT tools instead of following traditional methods. They can prepare questionnaires, multiple choice questions, one word answers, etc. with the help of computers.

ICT in teaching and learning process enables educators to evaluate learner's achievement. Paper-pencil tests, oral tests are traditional methods, we need to upgrade and we must include educational technologies in our education system. It reduces cost, time and work pressure.

### **Use of ICT in Research:**

As researchers, we use many applications and other sources from internet to gather knowledge. It helps to find appropriate content which we can analyze deeply and research efficaciously. Then we understand and use that content effectively. We can search a number of databases and then select relevant content to form one database for specific research. We can even use options like bookmark, download, save link, etc. so that we need not to start again and again, we can resume our journey from where we have left.

Even when researchers work on their thesis or dissertation, technology's effective and rapid computing skills have made calculations precise and quick for any type of data, even for large data sets. So, we can retrieve information, we can process information. Now, for communication or in easy language, to spread your research work across the world, ICT made it possible. With the help of different journal platforms, online submission of thesis or dissertations, e-libraries, virtual libraries it has been easy to communicate and learn about other people's work. We can access to research papers, research reports, peer reviewed articles, etc. online and other students or people can access our research related contents. It also fulfills the measures of security.

### **Conclusion:**

Today, ICT is in demand and it is the main component to fulfill the educational needs and purposes of learners. It is useful in every field. In field of education, it has been accepted globally. For better growth, we need to use it in good way. Excess of everything is bad and it is a suggestion that using technology in excess amount will make us completely dependent which ultimately will affect our health. Continuously working on computer is not good for eye sight and mental health. So, by setting proper rules and timings and

following it properly can help educators, parents and children in excellent growth. Since, use of technology is our future, so we need to understand it completely and then use it. ICT has made our tasks easy, effective, interactive and interesting. It is profiting students and educators in its own tremendous ways, only the thing is we need to understand its proper and efficient usage while keeping in mind about its disadvantages.

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## ROLE OF INFORMATION COMMUNICATION TECHNOLOGY IN EDUCATION

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Information technology is the latest broad term that includes the explanation of the whole range of processes such as the production, storage/storage, transmission, retrieval and processing of information. In the present unit, an attempt has been made to describe the various components of information technology as well as the components of information technology used in information systems and services have also been included.

### **Historical Perspective**

The development of information technology has been sudden; it is often believed that this is the case. But the history of its development is very old. The history of man-made information technology is about 5000 years old. Its development is not linear as in organic chemistry but has evolved into mechanical and then electronic form. In this journey of development, the primitive era gradually developed in the form of symbols, hieroglyphs, alphabet writing, printing and then computer type-setting. Over the years, there has been a qualitative improvement in information technology due to telephone, radio, television, satellite communication, transistor, computer and microprocessor. In the present and modern perspective, the reality is that we now have to accept information technology as a combined term encompassing all the new developments. In fact, information technology is the science of information handling, under which computer-assisted communication of scientific, technical, economic and social knowledge is done.

### **Information Technology: Definition**

Interpretation of information technology has also been described in various ways. Information Technology according to Macmillan Dictionary of Information Technology. It is defined as: "Acquisition, processing, storage and transmission of verbal, pictorial, textual

and numerical information by a micro-electronic based combination of computer and telecommunications." There are two points to be considered in this definition:

1. New information technology involves processes like representation, recording and processing of information and not just its transmission. These are all components of the communication process that occur separately (both analytically and experimentally) but are intertwined (in the context of human communication).

2. In modern information technology, information is represented in many ways. It is represented not only in textual (cognitive, theoretical and verbal forms as information is often thought of) but also in numerical, visual and audio forms.

UNESCO defines information technology as "the application and transmission of scientific, technological and engineering methods and management techniques for the operation and processing of information, involving the interaction of computers with humans and machines in relation to social, economic and cultural matters". Is." In this definition of stocks, the role of computers has been valued but communication systems have not been mentioned as much. Yet it is an indisputable truth that communication systems are equally important in information technology as computers. Computer, micro-electronics and communication are the three major phases of information technology. In other words, the amalgamation of technologies, products and techniques has given a new dimension to information management. This is known as new information technology. It also seems necessary to mention here that the meaning of information technology

### **(Communication Technology)**

The development and present form of communication technology can be considered possible due to the efforts of man to communicate remote information. Communication technology is considered older than computer technology. Its development has also happened in recent years like computer technology. Anthony Hettinger has given the name "Communications" to the combination of these two technologies. Like some of the few technologies in the past, this nascent technology has also changed the standard of living and living of human beings. Nowadays, this new technology is being used in important and successful manner at home, office, factory, various community works and information exchange systems. It is proving very useful in the information business as well. The

important aspects related to information communication / communication technologies have been briefly discussed in the following paragraphs. Messages can be exchanged between two devices at any desired time by a communication system. This type of system is commonly called a "switched network". There has been so much development in communication technology these days that it is now possible to service even commercially operated networks. In this way, there has been a great increase in the flow and exchange of data from computer to computer; computer manufacturers are also creating such network architectures that allow multi-operating systems in common types of computers. May be able to work like that. A terminal on a computer network can access data from any other computer connected to that network. In this way the computer acts like a terminal. Can perform computation and information retrieval etc. The capability of multi-lateral access allows users of the terminal to share resources. This type of network is characterized by a new technology. This is called packet switching network. Under this, a message is divided into several message-segments. This message segment is called a "packet". These packets are then transmitted between nodes. One of the information resources used for interaction is the "database". Many information systems based on this concept are in operation today. Another important progress has been made in the field of telecommunication from the point of view of technology, in which information is being transmitted in digital format instead of "analog". This important change led to the development of multi-capacity communication channels. Keeping this change in view, very expensive equipment was replaced by new equipment or they were modified or replaced. It also affected different types of communication like speech communication, fax, computer communication and television communication. For example, manufacturers of semiconductor circuits started manufacturing new devices called Codec's. Codec is an abbreviation for "coder" and "decoder". This codec circuit transmits human-speech through a standard speech-class telephone channel at a rate of 8000 signals per second and converts them into digital bit streams in code form. The digital signals received from hundreds of telephone conversations are collected and transmitted through a high-capacity communication medium, which is then decoded at the other end to receive the original voice. Although the process of converting from analogue to digital is an elaborate and quite complex process, its benefits are also many. Digital circuit economic cost

In terms of effectiveness, they are continuously improving. Also, the noise or voice related problems embedded in the analogue devices can be got rid of it. Thus innovations in

communication media from the transformation from analogue to digital have bridged the existing gap between communication and computing.

As a result of the rapid development of technological process, different types of services which were traditionally considered separate have now become equal. This type of trend is commonly referred to as Convergence of Service Modes. Voice and data as well as visual information can be transmitted through telecommunications. Along with the traditional one-way broadcasting, two-way transmission of selected visual and audio information has now become possible by Broad Band Cable. As a result, telecommunications and broadcasting, which were traditionally two separate services, are being merged together to provide a wide variety of services to the users with great efficiency. Due to this advanced innovation, techniques like fax, text processing and net processing can also be used in the publication of research journals. They can also be used extensively for library and information services according to the interest of the readers. In this direction, concepts like Integrated Services Digital Network (ISDN: Integrated Services Digital Network) are also developing rapidly. (Reprographic and Micrographic Technology)

The development of copying and micro writing technology is also very old. It has developed into today's existing forms as a result of human's continuous efforts in which information is available in the minimum form and the desire to get it soon and the ambition of dissemination. Not only by new equipment but also by information activities which include publishing, printing, copying, telephone network, broadcasting and computers etc.

### **Components of Information Technology:**

The major components under Information Technology can be divided as follows

(a) Computer Technology

(1) Processor Technology

(2) Storage Technology

(3) Software Technology (B) Communication Technology

(c) Reprographic and Micrographic Technology

(1) Copying

(2) Micro writing

**Integrated approach:**

Planning the use of ICT within the subject to enhance particular concepts and skills and improve students' attainment. This involves a careful and considered review of the curriculum area, selecting the appropriate ICT resource which will contribute to the aims and objectives of the curriculum and scheme of work, and then integrating that use in relevant lessons.

Enhancement approach: Planning the use of an ICT resource which will enhance the existing topic through some aspect of the lessons and tasks. For example, using an electronic whiteboard for presenting theory about a topic. In this approach, the teacher plans to complement the lesson with an innovative presentation method to promote class discussion and the visualisation of problems.

Complementary approach: Using all ICT resource to empower the pupils learning for example by enabling them to improve their class work by taking notes on the computer, or by sending homework by email to the teacher from home, or by word processing their homework.

**Factors Contributing to Using ICT in the Classroom**

According to Cox, et. al. (1999), there are a number of factors which have been identified which might influence and support teachers in using ICT in the classroom. Davis, et. al. (1989) found, that people's computer use was predicted by their intentions to use it and that perceived usefulness was also strongly linked to these intentions. External factors include: the requirements of a national curriculum or national guidelines; the changes in society with the rapid growth in the uses of the Internet and ICT in general; institution policies on using ICT; opinions of colleagues; responsibilities of the teacher; pressure from parents and students and the influence of the local education authority.

## A STUDY OF TEXT ANALYSIS BASED ON SOCIAL MEDIA

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### **Abstract**

The availability of a significant volume of textual data on social media, e-commerce websites, blogs, and other comparable sources has drawn a lot of attention to text classification, text mining, and sentiment analysis. The unstructured nature of this data makes it difficult and expensive to extract the knowledge needed to make wise decisions. The necessity for creating new approaches and models to effectively process texts and extract valuable information from them is expanding. Text analysis, often referred to as opinion mining, is the act of calculating the emotional value contained in a string of words or text in order to comprehend the attitudes, opinions, and feelings conveyed regarding a specific object. Text classification and its analysis, which aid in decision-making, are two ways to extract information. Social media is one of these fields that is expanding. People today are very active in obtaining and disseminating various information updates via social media on a 24/7 basis. From these massive amounts of user-generated content, numerous study fields have attempted to glean insightful information. This paper studies and analyses social media posts using a variety of text analysis, opinion mining, and sentiment analysis techniques. This study will aid in identifying various methods and aid in selecting the best appropriate method for analyzing social media posts.

### **I. INTRODUCTION**

Text categorization is the practice of categorizing written materials into predetermined groups according to their content. The automatic placement of natural language texts into predetermined groups is referred to as text classification. Text comprehension systems, which change text in some way, such as providing summaries, answering questions, making judgements, or extracting data, rely heavily on text classification. These systems retrieve texts in response to user queries in order to extract some information. Data mining, information retrieval (IR), and computational linguistics are just a few of the research areas

that have embraced text mining as one of the hottest trends in technology. Techniques for Natural Language Processing (NLP) were employed to wring knowledge from human-written textual data. In the lowest amount of time possible, text mining scans unstructured material to produce meaningful information patterns [1]. Social networking websites are now a significant source for data generation because the majority of people use them to stay in touch with one another on a regular basis. Social networking platforms offer fresh opportunities for interacting with members of various communities [2]. Social networking websites are now a significant source for data generation because the majority of people use them to stay in touch with one another on a regular basis. Social networking platforms offer fresh opportunities for interacting with members of various communities [3]. Applications for social network analysis have advanced significantly during the past few years, in part because of rising trends in online user interaction. Social networks are structured as graphs, and the data they contain is in the form of enormous streams that may be mined for a variety of resources. The post's Social Network Text Analysis discusses a significant period in the development of social network analytics. An extensive range of subjects on social network data mining, including Structural Properties of Social Networks, Algorithms for Structural Discovery, and Content Analysis in Social Networks, are presented in this edited volume, which includes contributions from eminent scholars in the field [4]. People can now get and share a variety of information updates 24/7 thanks to the growth of social media. Social media comprises blogging and social networking services that enable quick connections between users. The fundamental definition of social media is "the many widely used, reasonably priced, and accessible electronic technologies that make it possible for anyone at anytime to access information, work together on a project, or form relationships." These massive amounts of publicly accessible user generated content have been the focus of numerous research disciplines in an effort to uncover important insights. There is no exception when it comes to the study areas for e-commerce, intelligent transportation systems, smart cities, cybercrime, etc. However, it might be challenging to glean useful information from user-generated content. Because each social media platform has different requirements and standards for data collecting. The amount of posts that are made gets too much for automatic processing and mining [5]. In addition, social media writings are frequently brief, casual, filled with jargon and slang, and this contributes to an unstructured style. According to the social media applications mentioned above, social media is now an integral part of daily life and has a significant impact on how people live. Journalists and

their organizations have done a high-wire act ever since social networking platforms like Twitter, Facebook, and Instagram became important instruments for news. For the people, visiting these locations is now part of their daily lives. The darker aspects of using social media, however, are not difficult to find. Additionally, social media communications tend to be brief, informal, and full of acronyms, jargon, and slang, which results in an unstructured text. According to the aforementioned uses of social media, social media is now an integral part of everyday life and has a significant impact on how people live. A high-wire performance has been done by journalists and their organizations ever since social networking platforms like Twitter, Facebook, and Instagram became important instruments for news. For the populace, visiting these locations has become regular. However, it is not difficult to find examples of the darker aspects of social media use [6].

## II TEXT MINING METHODS AND TECHNOLOGY

Text mining software employs natural language processing (NLP), rule-based systems, and machine learning to unearth correlations, patterns, and sentiment in text documents that might otherwise go undetected.

First, NLP is used to preprocess the unstructured text. Any of the following stages may be part of this preprocessing:

- **Cleaning:** Eliminating diminutives (a, an, the) and fixing typos.
- **Stemming:** Removing prefixes and suffixes to reveal a word's stem (for instance, "hire" is the stem for both "hiring" and "hired").
- **Tokenization:** The breakdown of text into separate words and phrases.
- **Tagging parts of speech:** Identifying the different components of speech in a text, such as nouns, verbs, and adjectives.
- **Parsing syntax:** Examining sentence and phrase structures to ascertain the function of certain words. This identifies the sentence's subject, verb, and object.

Unstructured text, which makes up the majority of business data nowadays, is the focus of text mining. To extract meaning from text, text mining systems employ a variety of both simple and complex techniques.

### Basic Methods

The simplest text mining techniques look at certain words or phrases within each page.

These techniques concentrate on analyzing

- **Word frequency** is a method that identifies the most frequently occurring terms in the text while taking into account synonyms. It aids in determining the document's subject.
- **Collocation** is the study of words that frequently occur in succession or the same sentence, such as "user interface." This aids in determining their significance. The sequences, known as bigrams or trigrams, can be made up of two words (like "customer service") or three words (like "word of mouth" or "estimated delivery date").
- **Concordance determines the meaning of a word based on its context. After all, many words in the English language have multiple meanings. For example, does the word “pool” mean a swimming place, a game involving cues and billiard balls or a pile of contributed money?**

### Advanced methods:

Advanced text mining techniques look for themes across several documents or evaluate the context of the full document. They consist of:

- **Text classification, which identifies the subject matter, purpose, and attitude of a piece of writing.**
  - **Topic analysis determines the primary subject or theme of the text as well as any secondary themes that may be present.**
  - **Sentiment analysis determines if a document expresses a positive, negative, or neutral emotion, mood, or feeling.**
- **Language detection** classifies a document based on its natural language, such as English or Spanish.
  - **Intent detection** identifies the purpose of the document. Is a customer trying to buy a product or get more information before buying?

- **Text extraction**, also called information extraction, picks out important words or other data within the document.
  - **Keyword extraction** finds the most common or most important words in the text, especially words that appear more frequently in this document than in similar documents.
  - **Named entity recognition** extracts names of organizations, persons, products or places. This can be helpful in tracking social media conversations about the company's and competitors' products.
  - **Feature recognition** extracts phrases that describe product features, such as color and size, or customer information, such as telephone numbers and addresses.
- **Multi-Document analysis** identifies trends and patterns across multiple documents.
    - **Clustering** collects documents into groups based on common characteristics not found in other groups. For example, clustering could help to identify spam messages that use the same phrases.
    - **Co-occurrence** identifies occurrences of the same terms in different documents. For example, finding the same product name together with the word “errors” in multiple documents could mean there are problems with a product.
    - **Trend analysis** finds variations in topics or how those topics are treated in different time periods. Do new topics emerge while some topics disappear?

### III. RELATED STUDIES

Numerous research have been conducted by various authors that focus on text analysis for the most beneficial social media platforms in order to identify use cases and avoid unintended consequences. The methodologies and approaches utilized by various researchers for text analysis, opinion mining, and cyber hate detection analyses are briefly described in this section.

Facebook [8] and other social networking sites are full of text that users can utilize to produce a variety of text items, including comments, wall posts, social media posts, and

blogs. The widespread use of social networks in recent years has resulted in the availability of a vast amount of data on the Web. The use of text mining tools on social networking sites can produce important findings about interpersonal interaction patterns. In addition, text mining methods combined with social networks can be used to find widespread consensus on any given topic, human thought patterns, and group identification in complex systems.

A system for the radicalization of various types on the web is provided by authors D. Correa and A. Sureka in the year 2011. Link-based decision-making for this feature's radical information detection Determine the hierarchy between the documents. This feature includes links between websites. Relationships between website users are also included. Lexical, syntactic, graph-based, structural, and link-based characteristics are all included in the content-based feature, which offers content and structure for documents. This characteristic is mostly employed by link-based bootstrapping algorithms, while content-based features are employed by text classification methods.

The author [9] is working on a method to compile a ranked list of the most radical forum participants. In order to rank the most influential people, the radicals used a number of collocation-based association indicators and a Page Rank-based methodology. When used with the radicalness measure in the customized PageRank algorithm, the contingency coefficient measure is discovered to be the most promising of the offered association measures. On a typical data set, the testing findings are encouraging and outperform the current User Rank method. Additionally, it is discovered that collocation-based association measures outperform textual and temporal similarity-based measures in their ability to address this ranking challenge.

In 2016, Shabnoor Siddiqui and Tajinder Singh published a book about the impact of social media, including both positive and negative aspects. Everyone now regularly uses social media, and we witness people becoming dependent on this technology on a daily basis. People are affected differently by different fields. Student collaboration has improved in both quality and quantity because to social media. Corporate uses social media to improve an organization's performance in a number of ways, including to achieve business goals and raise the organization's annual sales. Young people are frequently seen interacting with these mediums. Social media offers many benefits, but it also has drawbacks that have an adverse effect on people. False information can cause the educational system to fail, and incorrect advertising will have an impact on an enterprise.

Authors Mane Priyanka, Rathid Sonali, Sanap Deepali, and Shirude Bhavana published a book in 2016 titled *Influential Users: How Radical Thoughts Can Overpower Naive Users' Minds*. Influential people persuade gullible users to take undesirable actions. This algorithm identifies prominent radical users from online forums and ranks them based on their forum comments. These powerful people are banned from the forum based on their user rating. Implementation of the system's first module, forum crawling and preprocessing has begun. This technique is effective for kicking out extremist and powerful forum participants. The authors presented a survey on opinion mining and sentiment analysis. They have described how to enter opinion-oriented information, the difficulties, how to classify opinions, and how to summarize them in this survey. For the analysis of emotions, many studies applied machine learning techniques. The authors' methods involve instructing a classifier on datasets and having it apply a knowledgeable model to classify new documents. There are further strategies that employ optional techniques like word lexicon dictionaries.

The authors [10] use social networks to gather and evaluate unprocessed data that users publish as real-time communications about their views on a range of issues in daily life. There are many instances, for instance, where radical thinkers have used social media to act as influencers and inspire fanatics with the same radical views to take violent action. Of course, social media data is only one type of information that can be of interest when trying to detect a possible terrorist or radical group. Using the public text posts on Facebook, the most popular social networking site, the author proposes a framework for opinion mining and extremist content detection in online social media data. With the help of this framework, computers may discover how to automatically extract the collection of messages from Facebook public pages and filter out non-opinion posts via API graph calls. Find out whether they have a positive or negative opinion of the topic at hand, and look for violent or extremist content. In order to analyse and monitor social media for digital signs of violence or radicalism that can be used in further digital forensic investigations, this methodology is valuable for law enforcement and cybercrime analysts.

Both authors [11] suggested using supervised sequential labeling techniques to extract topics and opinions. The results shown that supervised learning techniques can retrieve lexical data at the cutting edge of technology. These approaches' drawbacks stem from the fact that a substantial amount of training data in each domain must be manually annotated. A rule-based semi-supervised learning technique for lexicon extraction was recently proposed by Qiu et al. Their approach, however, necessitates manually defining a

few fundamental syntactic rules between sentiment and topic words. Additionally, it still needs a few terms in the target domains that have been annotated to be identified.

This project paper [12] mainly focuses on detection of terrorism content in social media. The content can be in form of text to spread the terrorist sentiments or threats/messages. The content used here can also be of the form of terror group images or their pictures of arms and attacks. Since if such content is published on social media it can spread vast unrest and agitation in public of any state or nation. So this paper, tries to automatically detect such content in real time and prevent from being uploaded on internet or disabled/removed from social media site if anywhere by chance.

The writers [13] strive to identify and stop the use of bad actors including spammers and trolls who appear to be everywhere, bots on Twitter, vandals on Wikipedia, fictitious Facebook profiles, and trolls on Twitter and Slashdot. They outline techniques for identifying malicious actors in four contexts—Twitter, Facebook, Slashdot, and Wikipedia—as network-based approaches that make use of the social network's structure, (ii) text-based approaches that analyze the linguistic content of posts, (iii) behavior-based approaches that look at user behavior, and (iv) real-time procedures that let social media defenders stay one step ahead of malicious actors. The purpose of the study is to describe a variety of algorithms, both specific to social platforms and more general algorithms that are platform agnostic, and to identify frequently used criteria for classifying actors into malevolent and benign categories.

This essay [14] examines the riskiest ways to damage people's sentiments by highlighting the social media platforms that have grown to be crucial for modern communication. Cyber-aggression or cyber-bullying are terms used to describe this. In this essay, the author conducts research to categorize instances of online hostility directed exclusively at Spanish-speaking users in Mexico. To help classify objectionable comments, they used Random Forest, Variable Importance Measures (VIMs), and OneR. Specifically in the three types of cyber aggression that involve violence against women, violence based on sexual orientation, and racism. The study demonstrates that comments can aid in the precise characterization of cyber-aggression and the development of strategies to lessen this occurrence. It is noted that further investigation into additional machine-learning methods and ongoing updating of the offensive data set may not be ruled out. Other types of cyber-aggression cases, like those involving children, must be investigated. Additionally, they

contend that developing an automated system for social network users' abusive Comments reduces human mistake. In addition, authors try to identify the people who have been harassed online so that they can offer them psychological support.

#### **IV. TEXT ANALYTIC**

Text analytics is a type of text mining that entails the transformation of unstructured text data into information that can be used for analysis. This normally aids in measuring product reviews before purchases, consumer feedback, and opinions that assist in search functionality among the numerous possibilities present in the industry. Social media remarks for any specific item or live post. Numerous machine learning methods are employed as linguistic, statistical, and machine learning methods to aid in text analysis. Text analytics is a method that involves extracting information from unstructured data and structuring the input text to identify patterns and trends that can then be used to further analyze and interpret the output data. From the millions of text data, text analytics extracts the keywords, themes, categories, semantics, and tags. It is possible to undertake text analytics using a variety of software programmes and then move on to additional analysis using tools like business intelligence, big data analytics, or predictive analytics [16]. Text analytics can be used in a variety of ways, including entity modeling, sentiment analysis, and decision-supporting facts. Information search and access for unstructured data, big data analytics, social media monitoring, cyber hate detection, business intelligence, record management and access, scientific research, various security applications, etc.

In the early days of social media or microblogging, public relations firms would review client comments on company websites in an effort to identify and manage disgruntled customers. With their growth, this is insufficient, and many think it's very easy and full of opportunities. 2.46 billion people use social media globally as of 2017 [17], with Twitter, Facebook, and YouTube receiving the most traffic online. In any case, even these observations fall short of providing a complete picture of the influence that social networking or microblogging websites have. Online users [18] spend more than 135 minutes every day on social media or microblogging platforms. In North America, Facebook alone has a market infiltration rate of 72.4%, compared to 26.3% globally [19]. These rates are rising quickly; as an example, Facebook now has 2.07 billion users, up from 1.59 billion at the end of 2015 [20]. According to YouTube's analysis of its videos, 100 million people like, dislike, comment on, or share those videos every week [21]. This amount doubled in

just two years. Facebook now mixes social interactions into its online advertisements, allowing users to see whether their partners have chosen or favoured any of the products being sold while they were viewing YouTube videos, for instance. In essence, hashtags on Twitter have offered customers another quick way to communicate their likes, dislikes, or opinions; this gives businesses a chance to learn about their attitudes. In the current global economy, social media data has emerged as one of the most valuable sources for businesses to comprehend the market value and customer diversity [22].

## V. CONCLUSION

As we can see, more and more people of all ages are using social media platforms. People are becoming more and more dependent on this technology. Therefore, since there are so many customer posts, it becomes vital to establish certain approaches and procedures for analysing them. This idea is related to a variety of concepts and techniques, including opinion mining, sentiment analysis, word alignment models, etc. There are many levels of opinion mining, and opinions are generated based on our requirements. People are affected differently by different fields. Student collaboration has improved in both quality and quantity because to social media. Businesses use social media in a variety of ways to improve an organization's performance, including to achieve corporate goals and boost the company's yearly sales. This tactic aids in the suppression of violent content on social media. The many methods employed by researchers in the field are studied in the literature in this case, and a system is then suggested that determines the post's type and aids in calculating the average percent value of malicious posts on social media.

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## AN EMPERICAL STUDY OF THE BEHAVIOURAL IMPACT ON ADOPTION OF FINTECH IN MYSURU DISTRICT

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### **ABSTRACT:**

With the influx of Fintech, which has shown to be a disruptive technology in the Banking, Financial Services, and Insurance (BFSI) sector, the Indian financial system has undergone transitory transformation. Fintech is essentially the application of cutting-edge technology to the conduct of financial business. In addition to digital wallets, retail lending, and corporate lending, fintech businesses are also competing in the wealthtech and insurtech business sectors. As of March 2022, India had 20 public sector banks, 22 private sector banks, 44 foreign banks, 44 regional rural banks, and a sizable number of cooperative banks, according to the Indian Brand Equity Foundation (IBEF). The aim of this study is to look into the behavioural impact of service quality in banking through e-services on e-service users' satisfaction. The study will examine how fintech service quality affects customer satisfaction. The study's findings will help banks and policymakers enhance the quality of fintech services they offer to increase the level of customer satisfaction.

**KEYWORDS:** fintech, wealthtech, insurtech, behavioural impact, customer satisfaction

### **INTRODUCTION**

The Indian economy is seeking to transition to a digital economy. Banks are promoting the use of (Fintech) financial technology and cashless payments to accomplish this. Fintech seems to be the Indian banking system's future. This makes financial technology service quality an important consideration because it is the quality of the e-banking services that would motivate or dissuade a customer from using the service. As a result, it's critical to comprehend the different aspects of fintech services. The connection between fintech

service quality and customer satisfaction makes research into it even more relevant. Service quality has been shown to have a clear link to customer satisfaction, which in turn has a link to customer retention on several occasions. As a result, it's critical to investigate the efficiency of fintech services and how it affects customer loyalty. In many nations, a lot of work has been done on the two, but not much has been done in the Indian framework. Since India aspires to become a digital, cashless economy, it's critical to gain a better understanding of consumer perceptions and expectations of cashless transactions through fintech. It is critical for bankers to understand the critical dimensions of service quality of electronic channels of service delivery that customers consider essential in deciding whether or not to approve or reject technology-based banking, i.e. e-banking. This research was carried out in order to better understand and investigate the various aspects of service quality of fintech, as well as the effect of these aspects on customer satisfaction. Since all banks in India now provide e-banking services, and e-banking is gaining popularity among customers, the report, in addition to determining the significant e-banking service quality dimensions, sought to compare the e-banking services provided by public and private sector banks.

#### **OBJECTIVES OF THE STUDY:**

The main aim of the study is to identify the following objectives regarding factors of customer satisfaction and service quality of fintech

1. To study the personal and organizational profile of fintech users in selected commercial banks in Mysuru city
2. To measure the level of customer satisfaction and service quality among the fintech users of different public and private sector banks in Mysuru city
3. To analyse the influencing factors of customer satisfaction of fintech users in the study domain.

#### **RESEARCH HYPOTHESIS:**

There are no significant differences between the Socio – economic factors and the level of satisfaction of the respondents.

#### **NULL HYPOTHESIS:**

The null hypothesis is framed to find out whether the demographic factors of the respondents are independent of their level of satisfaction

## **RESEARCH METHODOLOGY**

In general, the research methodology is defined as some of the research techniques like data gathering, data analysis, and assessment of the accuracy of search. A descriptive research design was approved for the study. They represent primary and secondary data.

### **1. Data collection**

Primary data collected from customers of Commercial Banks of Mysuru Dt. through the structured questionnaire forms. Secondary data also collected from the Commercial Banks of Mysuru Dt. via websites, Notices and Brochure of the particular banks, journals and books.

### **2. Sampling Size**

In the sampling selection convenient sample techniques was used for data collection. In the study researcher circulated 100 samples, among that 90 were received and from whole population 88 samples were found to be flawless and the same from the Commercial Banks of Mysuru Dt. Customers were taken for the study.

### **3. Instrumentals**

Questionnaire was used as an instrument for data collection from the customers.

## **DATA ANALYSIS AND INTERPRETATION**

The required data were collected by questionnaire and analyzed and interpreted with the help of tables with relevant descriptions. The proper processing of the raw data was performed, and logical conclusions were drawn based on the results.

## 1. Demographic Information

Table 1: Demographic variable

Demographic variables	No of Respondents	Percentage
<b>Sex</b>		
Female	59	59.00
Male	41	41.00
<b>Age</b>		
Below 25 Years	15	15.00
25 to 35 years	23	23.00
36 to 45 years	24	24.00
Above 45 years	38	38.00
<b>Marital Status</b>		
Married	58	58.00
Un married	42	42.00
<b>Educational</b>		
<b>Level</b> Below HSC	17	17.00
Graduate	36	36.00
Post Graduate	20	20.00
Professional	27	27.00
<b>Occupation</b>		
Government	47	47.00
Private	16	16.00
Self- employee	21	21.00
Professionals	11	11.00
Others	5	5.00
<b>Monthly Income (Rs)</b>		
Up to 20,000	51	51.00
20,000 to 30, 000	8	8.00
30,000 to 40,000	34	34.00
Above 40,000	7	7.00

Based on the demographic variable with 100 respondents surveyed 59 (59%) were females and 41 (41%) were males. Below 25-year group were 15 (15%) while 22 (22%) belonged to the 25 to 35 year group. A 24 (24%) were categorized in the 36-to-45-year group and 38 (38%) respondents fall under the above 46-year group. A total of 58 respondents were married which showed a (58%) and the unmarried 42 respondents accounted for 42%. The Educational level shows a) HSC level -17 (17%), b) Graduates - 36 (36%), c) post- graduate level and d) Professional level 27 (27%). For occupational categories, government servants were 47 (47%), private employed were 16 (16%), self-employees were 21 (21.00%), 11 (11%) were professionals and 5 (5%) belonged to other categories. The Revenue wise sorting showed that the 51 (51%) were in below Rs 20,000 group. 9 (9%) were in the 20,001 to 30, 000 group, 34 (34%) were in the 30,001 to 40,000 group and 7 (7%) were in the above 40, 000.

## 2. Reason for the Preference of Commercial Banks of Mysuru Dt.

**Table 2: Reason for the Preference Commercial Banks of Mysuru Dt.**

Reasons	Respondents	Percentage
Customer service	13	13.00
Easy accessibility	40	40.00
Favorable interest rate	13	13.00
Quick service	27	27.00
Goodwill	7	7.00
<b>Total</b>	<b>100</b>	<b>100</b>

Based on Reason for selection on table 2 above it is clear that 13 (13%) respondents had selected Commercial Banks of Mysuru Dt. because of customer service, 40 (40%) due to easy accessibility, 13 (13%) preferred because of a favorable interest rate, 27 (27%) opted due to quick service and 7 (7%) because of goodwill.

## 3. Sources of Information regarding Bank

**Table 3: Source of information Regarding Bank**

Source	Respondents	Percentage
Online and Paper Advertisement	27	27.00
Friends Network	27	27.00
Relatives Group	20	20.00
Bank Sales Representatives	20	20.00
Other sources	6	6.00

Based on Sources of Information about Bank, Table 3 above shows that, out of 100 respondents, 27 (27%) came to know about Commercial Banks of Mysuru Dt. through online and paper advertisements, 27 (27%) through friends, 20 (20%) through relatives, 20 (20%) through bank representative and 6 (6%) through other sources.

#### 4. Mode of Using Bank Services

**Table 4: Mode of Bank Services**

Dealing	Respondent	Percentage
Online Banking	48	48.00
Traditional Banking	52	52.00
<b>Total</b>	<b>100</b>	<b>100</b>

Based on Mode of using bank services, Table 4 shows that, out of the total 100 respondents 48 (48%) opted the online- banking and 52 (52%) opted the traditional banking.

#### 5. Types of Accounts Maintained by Respondents in the Commercial Banks of Mysuru Dt.

**Table 5: Types of Accounts Maintained by Respondents in the Bank**

Types of account	Respondents	Percentage
Current account	13	13.00
Savings bank account	37	37.00

Fixed deposit account	7	7.00
Recurring deposit account	10	10.00
Loan account	33	33.00
<b>Total</b>	<b>100</b>	<b>100</b>

Based on Type of accounts questionnaires the above table 5 reveals that 13 (13%) respondents were current account holders, 37 (37%) were saving bank accounts holders, 7 (7%) were having fixed deposit accounts, 10 (10%) were recurring deposit account holders and 33 (33%) were loan accounts holders.

## 6. Formalities to Open an Account

**Table 6: Formalities on Saving Bank Account**

<b>Opinion</b>	<b>Respondents</b>	<b>Percentage</b>
Highly Satisfied	28	28.00
Satisfied	47	47.00
Dissatisfied	8	8.00
Highly satisfied	8	8.00
Neutral	9	9.00
<b>Total</b>	<b>100</b>	<b>100</b>

Based on Formalities to Open an Account questionnaire, Table 6 was formulated based on the study on satisfaction of customers towards formalities in account opening. 28 (28%) respondents were highly satisfied with the formalities, 47 (47%) were satisfied, 8 (8%) were dissatisfied, 8 (8%) were highly dissatisfied and 9 (9%) were did not disclose their satisfaction level.

## 7. Opinion on Saving Bank Account

**Table 7: Opinion on Saving Bank Account**

<b>Opinion</b>	<b>Respondents</b>	<b>Percentage</b>
Highly Satisfied	16	16.00

Satisfied	53	53.00
Dissatisfied	20	20.00
Highly dissatisfied	3	3.00
Neutral	8	8.00
<b>Total</b>	<b>100</b>	<b>100</b>

Based on Savings bank account opinion Table 7 analyzes the opinion of respondent's procedure relating to opening a Commercial Banks of Mysuru Dt. account. From the total 100 surveyed, 16 (16%) were highly satisfied, 53 (53%) were satisfied, 20 (20%) were dissatisfied, 3 (3%) were highly dissatisfied whereas 8 (8%) were unwilling to reveal their opinion.

#### 8. Local Cheque Clearance satisfaction level

**Table 8: Local Cheque Clearance satisfaction level**

<b>Opinion</b>	<b>Respondents</b>	<b>Percentage</b>
Highly Satisfied	16	16.00
Satisfied	67	67.00
Dissatisfied	4	4.00
Highly dissatisfied	6	6.00
Neutral	7	7.00
<b>Total</b>	<b>100</b>	<b>100</b>

Based on Local Cheque Clearance satisfaction level Table 8 points out that among the 100 respondents 16 (16%) were highly satisfied in clearing of local cheques, 67 (67%) were satisfied, 4 (4%) were dissatisfied, 6 (6%) were highly dissatisfied and 7 (7%) were denied disclosing their satisfaction level.

#### 9. Respondents' Opinion on Sanction of Loans

**Table 9: Respondents' Opinion on Sanction of Loans**

<b>Opinion</b>	<b>Respondents</b>	<b>Percentage</b>
High satisfied	23	23.00
Satisfied	47	47.00
Dissatisfied	10	10.00
Highly dissatisfied	8	8.00
Neutral	12	12.00
<b>Total</b>	<b>100</b>	<b>100</b>

Based on Table 9 clearly shows that 23 (23%) respondents were highly satisfied with loan sanctioning process, 47 (47%) were satisfied, 10 (10%) were dissatisfied, 8 (8%) were highly dissatisfied and 12 (12%) were did not disclosed their satisfaction level.

#### 10. Customers' Satisfaction Level on Outstation Cheque Clearance

**Table 10: Out station Cheque Clearance satisfaction level**

<b>Opinion</b>	<b>Respondents</b>	<b>Percentage</b>
High satisfied	16	16.00
Satisfied	66	66.00
Dissatisfied	5	5.00
Highly dissatisfied	5	5.00
Neutral	8	8.00
<b>Total</b>	<b>100</b>	<b>100</b>

The following were derived based on table 10, 16 (16%) were highly satisfied in out station cheque clearing, 66 (66%) satisfied, 5 (5%) dissatisfied, 5 (5%) highly dissatisfied and 8(8%) have not disclosed their opinion.

#### 11. Availability of Service Materials at Bank

**Table 11: Availability of Service Materials at Bank**

<b>Opinion</b>	<b>Respondents</b>	<b>Percentage</b>
Available	13	13.00
Not Available	20	20.00

Rarely	24	24.00
Very scarce	35	35.00
Available but not given to customers	8	8.00
<b>Total</b>	<b>100</b>	<b>100</b>

Regarding the availability of service materials at bank, customer views are summarized in table 11. 13(13%) respondents felt that service materials were available at the bank, 20 (20%) reported the unavailability of service materials, 24 (24%) opined those materials were rarely available, 35 (35%) complained that it was very scared and 8 (8%) said that service materials were available but not given to the customers.

## 12. Priority Allowed by the Bank to Customers

**Table 12: Priority Allowed by the Bank to Customers**

<b>Priority</b>	<b>Respondents</b>	<b>Percentage</b>
Available	7	7.00
Some times	19	19.00
From Some staff	12	12.00
Very rarely	29	29.00
Never	33	33.00
<b>Total</b>	<b>100</b>	<b>100</b>

Based on Table 12, it reveals that out of 100 respondents 7 (7%) were availing priority treatments, 19 (19%) were sometimes enjoying priority treatment, 12 (12%) enjoyed from some staff of the bank, 29 (29%) received priority treatment very rarely and 33(33%) were never offered any priority treatment from the bank.

### Research hypothesis:

There are no significant differences between the Socio – economic factors and the level of satisfaction of the respondents.

### Null hypothesis:

The null hypothesis is framed to find out whether the demographic factors of the respondents are independent of their level of satisfaction

## CONCLUSIONS

Based on the survey and analysis reveals the level of customer is satisfactory towards the banking services of the Commercial Banks in Mysuru Dt. and its region. While taking into the consideration of the demographic factors of age, sex, marital status, educational qualifications, and monthly income of 100 respondents, an ultimate data has been arrived and it denotes that there is a medium level of satisfaction only on the customers' side. Also, bank employee behavior, banking quality services and banking concert affecting the level of customer satisfaction, the Commercial Banks of Mysuru Dt. shall implement prompt customer friendly schemes / portfolios as an initiative go. These things will make a long way to develop the level of customers' satisfaction thereby addressing and correcting customer worries and improve the number of customers as well. Possibly this shall lead to a prosperous economy since customer satisfaction is the spindle of a successful commercial banking structure.

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# THE IMPACT OF PUBLIC HEALTH AND IMPROVED SOCIAL CONDITIONS ON LIFE EXPECTANCY: AN EXAMINATION OF PUBLIC AWARENESS

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## **Abstract**

According to historical health data research, the bulk of the rise in life expectancy in recent centuries is caused by advances in public health and socioeconomic determinants of health. This study aimed to analyze the general public's beliefs on why life expectancy has improved. A nationally representative sample of 70 persons is polled to determine what causes people attribute to the 40-year rise in life expectancy from the mid-1800s. Among the survey elements were open-ended questions, a ranking of plausible explanations, and numerical attribution estimates. The study's participants seldom ascribed higher life expectancy to public health interventions or changes in social health variables. In contrast, individuals stated that medical treatment played the most important influence, accounting for 80% of the rise in life expectancy. The public vastly overestimates the contribution of medical treatment to our increasing life expectancy. It needs to be made aware of the crucial impact of public health and better socioeconomic conditions factors. These misconceptions may stymie proper public health financing and efforts to address critical health-related societal concerns. Misattribution of credit may also lead to overfunding the economy's medical sector and obstructing efforts to control healthcare expenses.

**KEYWORDS:** Life expectancy; Public health; Social determinants of health; Medicine

## **1. INTRODUCTION**

According to public health historians and epidemiologists, the bulk of the rise in life expectancy over the previous 200 years. It has occurred from controlling infectious illnesses, more available and safer diets, improved sanitary conditions, and other nonmedical societal changes [1-5]. The most significant rise in life expectancy, known as

the "First Public Health Revolution," happened between 1880 and 1920, when antibiotics and modern surgical methods were available [6-8]. This age has passed, and the significant contribution of nonmedical health variables may be relatively overlooked and underappreciated by the general population. We tried to find research that mainly addressed the lay public's reasons for the historical increase in life expectancy, indicating a significant vacuum in the expert literature.

The objective of this study was to find out how individuals interpret the historical rise in life expectancy. Based on a preliminary survey of college-aged public health students, it has been expected that individuals would credit most of the gain in life expectancy to medical treatment. The research hypothesis has been further reinforced by a class project in which we asked over 30 students to poll 10 people on the fundamental causes for the rise in life expectancy over the last century. People may be better able to relate to the direct consequences of medical treatment on health than to the preventative circumstances and behaviours of the distant past. It is essential to appropriately allocate credit for health advances to avoid inclining a society to overfund the economy's healthcare sector, which concentrates on treating rather than preventing health issues. In turn, such misunderstandings may weaken public support for current public health initiatives and attempts to address socioeconomic determinants of health.

## **2. THEORETICAL BACKGROUND**

While various indicators are regularly used to assess public health, life expectancy is widely utilized and well-known. All population members live the average number of years of life expectancy [9]. Evaluating the relative health of populations from different regions and periods is incredibly valuable. The indicator is not a novel notion; life tables have been used to assess life expectancy in England since the days of John Graunt (1662) [10].

Various conceptual models have developed to account for the elements that influence health and life expectancy. The LaLonde study from the 1970s stated that life expectancy was determined by lifestyle, the physical environment, medical treatment, and biological variables [11]. According to critics, this paradigm mainly considers proximate health factors and excludes more distant but still firm, more significant societal impacts on health [12]. Poverty, education, housing, food insecurity, unemployment, and income distribution are among the factors considered in modern health-determination models [13,14]. These more comprehensive models stress the ecological character of several health variables, which interact to provide a "web of causation" explanation of health and life expectancy. Not all

health determinants are created equal. Frieden's Health Impact Pyramid [15] proposes that addressing socioeconomic determinants and modifying health-related decisions' social/environmental context have the most significant potential to enhance life expectancy. Despite these suggestions, India spends about 18% of its GDP on technologically advanced healthcare while underfunding cost-effective public health programs that have been shown to benefit population health [16].

The preference for medical interventions to improve health may be partly due to a lack of awareness that large life expectancy advances in the previous 200 years have been predominantly the consequence of improvements in nonmedical determinants of health [1-5]. According to historical data, increased sanitation in public water treatment, sewage management, food inspection, and municipal rubbish collection practically eradicated cholera, dysentery, and typhoid [17]. Revolutionary agricultural production, food transportation, and preservation technologies significantly improved the ordinary diet, removing many nutritional deficiency-caused disorders and boosting immune function against infectious infections [18]. In 1900, TB was India's second leading cause of mortality [1]. Long before the first effective TB medicine was introduced in 1946 [19], better housing, less congested living circumstances, and improved nutrition significantly decreased the illness. Approximately half of the drop in coronary mortality rates over the previous 50 years has been linked to lifestyle changes, notably reduced cigarette smoking [20,21]. Regulations, education, and engineering innovations have considerably lowered the incidence of unintentional injury and occupational mortality [22]. With the elimination of coal-burning furnaces, leaded gasoline, and tighter industrial emissions control, air quality has improved [23]. Education, literacy rates, child labour regulations, and economic prosperity enhanced life expectancy and health [5,24-26].

Life expectancy grew from around 39 years in the mid-1800s to over 79 years by 2014 as a result of advances in nonmedical determinants of health and developments in healthcare. [27,28] The Centers for Disease Control and Prevention estimated in 1999 that gains in public health were responsible for 25 of the 30 years of improved life expectancy in India throughout the twentieth century [1]. According to McKinlay and McKinlay, just 3.5 percent of the overall mortality drop between 1900 and 1970 could be "attributed to medical problems" [25]. Bunker found that clinical preventative treatments were responsible for five and a half of the thirty-year rise in the United Kingdom between 1900 and 2000 [29]. As a

result, public health initiatives and improved socioeconomic circumstances may credit the majority of the rise in life expectancy observed since the mid-1800s.

### **3. RESEARCH METHODOLOGY**

The analyses are based on a representative cross-sectional survey of the adult population of Tamil Nadu, India. The distribution of selected demographic factors was comparable among survey participants and the general population in the Tamil Nadu State in India.

#### **Sample**

Survey results are acquired from an online sample of actively controlled panels of high-quality respondents recruited by Survey Sampling International, a significant professional public opinion/marketing research firm [30]. Respondents from India who were willing to share their honest thoughts are included in the online sample. The company's incentive scheme promotes improved representation through engaging and motivating participation. Participants interested in contributing to the research were encouraged to join the company's response panels. The company's recruitment techniques include robust quality control processes to ensure that sample opt-in responses are high quality. Before an offer to participate was given, the research business was aware of the demographics of possible responders. After certain demographic factors were adequately represented in the sample, the option to complete the survey was gradually limited to some potential responders. This process ensured that the created selection was representative of the national demographic profile of India in terms of age, gender, race, income, and education. Seventy people completed the survey. Nonsensical survey replies are identified using quality assurance approaches. Twenty of these replies were removed from the study, yielding a total sample size of 705.

#### **Instrument**

A questionnaire was created to determine what elements the public feels led to improved life expectancy and health improvements in India during the last two centuries. Separate from individuals involved in the current investigation, three public health faculty members evaluated the instrument for content and face validity. This resulted in a revised version of the questionnaire, which was subsequently considered on a convenience sample of twenty people assumed to be typical of the adult population in India. This resulted in a few minor adjustments, and the instrument was then administered to a group of 357 public health students. Based on the premise that most individuals would credit the increase in life expectancy to medical treatment rather than public health prevention, the needed sample

size was calculated using the effect size and standard deviation acquired from the pilot research group. The academic institution of the study team granted permission to survey human subjects.

The poll included three different assessments of how individuals understand the historical rise in life expectancy. "This poll deals with health, sickness, and life expectancy," says the study's introduction. The average number of years people will live from birth is life expectancy. The average person's future life expectancy is the number of years they will live after reaching a certain age." They were then asked an open-ended question: "In India, average life expectancy was 35 years in 1850 and 79 years in 2011. What is the single most important reason for this increase in life expectancy?" Two researchers independently coded responses as "modern medicine," "better nutrition," "healthier lifestyle," "sanitation," "education, awareness, knowledge," and "other/don't know." The responses were numerically coded, and any discrepancies (n=7) were resolved through discussion and mutual agreement.

Second, participants were given a list of six factors that public health historians believe were significant contributors to the increase in life expectancy since the mid-1800s. This second attribution measure provided plausible explanations that participants may not have recalled and, therefore, considered when answering the open-ended questions. The question asked was: "Several factors have contributed to the rise in life expectancy seen in INDIA. From 1850 to the present day. Below, rank each factor by its level of contribution to the rise in life expectancy. 1= the most important factor, 2= the second most important factor, and so forth until you reach 6= the least important factor." The factors to be ranked were improved sanitation, food production, vaccinations, modern medicine (surgeries, medications, diagnostic techniques, etc.), poverty reduction, and public education. These first two questions only allowed for a ranking of explanations to be calculated.

Third, the proportion of improved life expectancy people attributed to healthcare/modern medicine was assessed. Participants were informed that the nation spent 17% of its Gross Domestic Product in 2011 on healthcare/modern medicine (e.g., physicians, hospitals, clinics, diagnostic technology surgery, and antibiotics). They were then asked, "What would life expectancy be if we spent nothing on healthcare/modern medicine." Demographic data are collected to ensure that a representative sample has been drawn and to analyze potential differences in responses between groups. Demographic variables included age, sex, race, ethnicity, income, and educational attainment.

### Statistical Methods

To summarize and characterize the data, frequency distributions were employed. Using bivariate analysis, the chi-square test was performed to determine the significance of the connection between selected variables. The Mantel-Maenszel (MH) chi-square was also utilized to assess trend differences. The 0.05 threshold of force was used to examine two-sided hypothesis testing. The SPSS software, version 9.3, was used for the analyses.

### 4. ANALYSIS AND INTERPRETATION

Table 1 categorizes participants based on specified demographics. 23 percent of those who took part were under 30-39. There were significantly more females than men. 31 percent earned less than Rs50,000 a year, 80 % of the respondents were Hindu, and 24 % were undergraduates.

**Table1:Demographic characteristics**

Variable	Description	No. of Respondents	Percentage
Sex	Male	34	49
	Female	36	51
Age	18-29	15	21
	30-39	16	23
	40-49	14	20
	50-59	13	19
	Above 60	12	17
Religion	Hindu	56	80
	Christian	12	17
	Muslim/ Other	2	3
Education	Primary School	15	21
	High School	16	23
	Under Graduate	17	24
	Master's Degree	12	17
	Doctoral or Professional	6	9

	Technical Degree	4	6
Annual Household Income	Less than Rs 25K	17	24
	25K-49,999	21	31
	50K-74,999	14	20
	75K or more	17	25
	Total	70	100

\*\*\*Source: Primary data

**Table 2: Open-ended Responses for Explaining Increased Life Expectancy.**

Sl.No	Life Expectancy	No. of Respondents	Percentage
1	Modern Medicine	36	51
2	Improved Lifestyle	14	20
3	Improved Nutrition	6	9
4	Education, Knowledge	4	6
5	Improved Sanitation	2	3
6	Other, Don't Know	8	11

\*\*\*Source: Primary data

**Table 3: Primary reasons given for the improvement in life expectancy**

Sl.No	Life Expectancy	No. of Respondents	Percentage
1	Modern Medicine	30	43
2	Vaccination	14	20
3	Sanitation	12	17
4	Education	8	11
5	Poverty	4	6
6	Food Production	2	3

\*\*\*Source: Primary data

The most popular response to the open-ended question, which asked individuals to name the single most crucial factor for increasing life expectancy, was "modern medicine" (Table 2). Far fewer replies were classed as "better lifestyle," "improved diet," or "education, awareness, or knowledge," and even fewer were labelled as "improved sanitation."

Participants were asked to assess the relative relevance of six characteristics listed in the research as playing significant roles in improving life expectancy from high to low (Table 3). Modern medicine was the most often cited reason for increasing life expectancy. Other criteria, such as immunization and cleanliness, had a far lower chance of being ranked first. Education, poverty, and food production garnered just 20% of the first-place votes combined. Bivariate analyses were performed to see whether choosing modern medicine as the essential factor was related to age, gender, race, education, or yearly household income. Only race was statistically significant, with 43% of whites choosing this item as the most important against 32% of Hindus ( $p=0.0151$ ).

When asked to project life expectancy if society had all modern conveniences (e.g., sanitation, education, sufficient income, and food production), the average response was approximately 47 years. This would represent a 32-year decrease from our current life expectancy of 79 years. According to these data, the public attributes 80% of the 40-year increase in life expectancy since the mid-1800s to modern medicine and only 20% to all other factors.

## 5. DISCUSSION

According to the findings of this survey, individuals in Tamil Nadu attribute 80% of the increase in life expectancy since the mid-1800s to modern medicine. The cumulative influence of increased sanitation, literacy, housing, health practices, food production, safer settings, and other public health variables was underappreciated. These misconceptions are constantly noticed regardless of age, gender, colour, education, or wealth. This study has significant consequences for a country that spends significantly more on healthcare than any other yet has the 34th lowest life expectancy [30]. Prudent public health policy that attempts to extend life expectancy while lowering healthcare costs should recognize the significance of numerous health variables. Poor policy decisions and misdirected financial priorities may have stemmed from an inaccurate understanding of the significance of public health policies.

The report from the World Health Organization's Rio Conference in 2011 encouraged states to improve health by tackling social health factors [31]. Unfortunately, when people feel that increasing life expectancy is primarily due to technologically advanced treatment, they may be more inclined to spend a significant percentage of the national budget on the healthcare industry. As a result, more resources are needed to perform population-based public health interventions and address socioeconomic health factors that promote health, with a significant focus on prevention. Many variables might need to correct for the public's failure to correctly credit the causes of increased life expectancy in India and abroad. Above all, society may have just forgotten. It has been nearly ninety years since the first public health revolution ended (1880-1920). Many people today are unaware of it and, as a result, have little fear of many of the diseases that were prominent during the period, such as cholera, TB, dysentery, typhoid, rickets, or scurvy. Furthermore, they need more understanding of how these health issues were resolved.

The media may have contributed to the misperceptions reported in this study. Television shows dramatize and glamorize the world of modern medicine, portraying healthcare as having fantastic healing powers [32]. Environmental factors, poverty, housing, food insecurity, education, and social welfare are rarely communicated to viewers as powerful predictors of health. Aside from the entertainment function of television, new drugs and medical procedures are given constant attention in broadcast news. Public health interventions, on the other hand, are successful when nothing happens. The news media, by definition, does not report on things that are "not happening." As a result, the public overestimates the significance of modern medicine in comparison to other health variables. Another explanation for the disparity in credit for increasing life expectancy is that medical benefits are customized rather than population-based. Individuals are treated in medicine because they can perceive the link between therapy and outcomes. Results are frequently noticed in a short period. Patients are aware that they have been assisted and are thankful.

In contrast, the cause-and-effect relationship between a public health initiative and improved health is typically far in the future and hence impossible to discern. Beneficiaries of public health initiatives need to be aware that they have received assistance [33]. As a result, there needs to be more appreciation and support for supporting public health programs.

It is unknown if the under-attribution of credit to nonmedical health variables is a changeable view. Future research should examine whether educational interventions might help rectify the misconceptions and blind spots discovered in this study. Two constraints impacted the survey results. Because the poll was done online, it eliminated people who did not have computer access. People with a lesser education and income levels may underrepresent in this research. The study was also done in English, and several minority groups were omitted.

## 6. CONCLUSION

People are often unaware of the causes contributing to increased life expectancy. The findings of this study have consequences for national health policy. Society may be less willing to support current initiatives and policies addressing these essential but less visible health factors if it does not realize that advances in nonmedical determinants of health were principally responsible for historical increases in life expectancy. Public health experts face the challenging and vital task of educating the medically-obsessed public about the truth that numerous things beyond the doors of hospitals significantly impact life expectancy. The function of health education in public health must grow beyond the focus on individual decision-making. The most fundamental goal of health education is to enable society [34] to comprehend what variables contribute the most to improved life expectancy and [35] that addressing those issues has the most potential to enhance the nation's health.

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## **WORKING CAPITAL MANAGEMENT OF MANUFACTURING COMPANIES IN THE INDIAN TYRE INDUSTRY**

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### **INTRODUCTION**

Any business requires not only capital to run it smoothly but also a vision that will propel it forward. Apart from all these we need smart management to ensure continuous operations.

If a business is a part of the manufacturing company, not only that need to manage long-term capital for procuring manufacturing equipment but also working capital to ensure business continuity. This study aims at a comprehensive look at evaluating the quality of a company, in its Working capital management. Working capital management is concerned with the management of current asset and current liability of a Company.

### **1.1 CONCEPTS OF WORKING CAPITAL**

There are two basic concepts for working capital

1. Quantitative Concept (Gross Working Capital)
2. Qualitative Concept (Net Working Capital)

Both concepts are important for the operations of the business. Gross concept highlight the use of the working capital and net concept highlight the sources of working capital. But both qualitative and quantitative should be studied to manage the return, risk and uncertainty in the working capital.

#### **Gross Working Capital**

Total current assets are called as the gross working capital. Total current assets are marketable securities like shares and bonds, cash, inventory, account receivable, expenses paid in advance, prepaid tax etc. According to Weston and Brigham, Gross working capital refers to the short term investments. Walker says that correct amount of working capital available to the firm at the proper time enhances the firm's return from the investment. Mead

Field, Baker and Malott support Walker concept and wrote that management should give important for maintaining the current asset so that fund is available for the everyday operations of the firm.

### **Net Working Capital**

Excess of current asset over the current liability is termed as the net working capital. Net working capital refers to portion of current asset left after meeting the current liability of the company. If the current asset is more than the current liability, then the net working capital is positive. On the other hand the networking capital is negative, if the current liability is more than the current asset. The net working capital may be termed as the portion of the current asset served as the funds for the long term. Net working capital used to indicate the liquidity position of the company.

### **Industry Profile :**

Tyre Industry is one of the leading contributors for the economic development of India. It contributes about 3% of the manufacturing GDP and 1.5% to the total GDP of the Indian economy while considering its direct and indirect contributions. The industry provided 2.8 million direct and indirect jobs as in the year 2017. Hence it is important to study the tyre industry in precise way. It is difficult to analyze the tyre industry in broader way. By considering the importance of working capital management of tyre manufacturing companies, which involve lot of current asset and current liability, researcher has chosen working capital management of the selected companies in tyre industry. The study aims to analyze the working capital management of the selected tyre manufacturing companies in India. Analysis on working capital management includes working capital ratios, efficiency of working capital, identifying the relationship between working capital components and sales and profitability and estimation of industrial benchmark related to working capital components.

### **1.3 SIGNIFICANCE OF THE STUDY**

Tyre Industry is an integral part of the auto sector. The tyre manufacturers have been grappling to alter manufacturing mechanisms to meet the changing trends and demands. The tyre companies are stepping up the production facilities with technologies, that effort towards less usage of carbon black, which in turn contributes in lowering emissions.

Working capital management facilitates the tyre industry to manage enough cash to meet out the short term operating cost and short term debt obligations. The present study aims to identify the relationship between the control variables on Net working capital of the selected companies.

The companies are selected from the organized sector and comparative financial performance.

#### Population and Sampling Method

The population of the study is all the tyre manufacturing companies in India. According to the Automotive Tyre Manufacturers Association (ATMA), there are 40 tyre manufacturing companies in India. Out of this population, the 7 tyre companies have been selected under following aspects.

1. The organized companies, having more than 2% of market share in the original equipment market.
2. Leading tyre companies, produce multiple varieties of automobile tyre products in India.
3. The Financial statements of which are available for the past 10 financial years (2009-2018).

The Companies that are chosen are,

- |                          |                          |
|--------------------------|--------------------------|
| 1. MRF Ltd.,             | 4. CEAT Ltd.,            |
| 2. Apollo Tyres Ltd.,    | 5. Balkrishna Ind. Ltd., |
| 3. J.K. Tyres & Ind. Ltd | 6. TVS Srichakra Ltd.,   |
| Good Year India Ltd.,    | 7.                       |

#### Panel Regression for Impact of Control Variables on Net Working Capital

The panel regression analysis will be used to test the impact of control variables on the net working capital of the companies. The variables that are being chosen are;

1. Financial health
2. Firm size
3. Governance
4. Corporate Social Responsibility

## 5. Financial Leverage

**H<sub>1</sub>:** The control variables will have a significant impact on net working capital of the firms

**H<sub>2</sub>:** The control variables will increase the net working capital of the firms

The empirical analysis of the study presented in the following tables show descriptive statistics, correlation analysis and the regression results of the study.

**Table 1: Descriptive statistics**

Panel	Obs.	Mean	Std. Dev.
Financial health	105	1.422	0.061
Firm size (Capital)	105	0.854	0.353
Governance	105	0.602	0.540
CSR	105	0.407	0.549
Financial Leverage	105	2.012	2.136
Dummy	105	11.253	3.065

Table 1 presents the descriptive statistics of variables. The descriptive statistics show that financial health of firms under this study has an average mean of 1.422 and standard deviation of 0.61, which shows the selected firms fall below the Z score average of 1.81, and further is not a good financial health. Further the level of firm size shows that 85% of large firms are more likely to have more than enough capital. Perhaps the governance, CSR and Financial leverage at mean values 0.608, 0.407 and 2.012 are quite good enough to be a part of the business. The standard deviation for the financial leverage shows the uneven distribution of debt in among all firms.

**Table 2: Correlation Coefficients And Variance Inflation Factor (VIF) Coefficients**

Panel	Financial health	Firm size (Capital)	Governance	CSR	Financial Leverage	VIFs
Financial health	1					1.048
Firm size (Capital)	0.050*	1				1.136
Governance	0.040*	0.021*	1			4.044
CSR	0.008**	0.016**	0.605	1		2.630
Financial Leverage	0.010**	0.040*	0.554	0.025*	1	2.192

**Note: \* $p < 0.05$ , \*\* $p < 0.01$  (two-tailed),  $N = 105$ . Pairwise Correlation. YDU, which represents year dummy was tested but not recorded and shows no signs of multicollinearity.**

The Table 2 shows the correlation coefficients and variance inflation factor (VIF) under the study. There is a good positive correlation between the variables. The strength of the correlation is moderate and positively significant. The correlation coefficient governance and CSR is good and positively significant and is the largest significant correlation coefficient among the independent variables. Also, multi-collinearity test using a variance inflation factor (VIF) assess the degree of correlation among the variables and the results in the table shows no evidence of multicollinearity. Therefore, we can deduce that there is no problem of multicollinearity in the model equations.

### Panel regression tests

**Table 3: Panel Fixed Effect (FE) and Panel Logic regression using the odd ratio**

Variables	FE - Model 1	Model 2 (logit model/odd ratio)
<b>Financial health</b>	0.231*	6.412**
	[0.075]	[6.021]
<b>Firm size (Capital)</b>	0.009	2.310
	[0.000]	[0.210]
<b>Governance</b>	-0.0657**	1.412
	[0.002]	[0.362]
<b>CSR</b>	-0.451	0.021
	[0.140]	[0.001]
<b>Financial Leverage</b>	0.002	1.521
	[0.035]	[0.120]
<b>Net Working Capital</b>	0.055*	0.411**
	[0.020]	[0.003]
<b>R square within/Log-likelihood</b>	0.072	-123.11
<b>R square between/Chi-square</b>	0.049	86.54
<b>R square overall /P values</b>	0.042	0.001

**Note: Robust standard errors are in parenthesis. \*, \*\* indicates significance at 5% and 1% levels respectively**

The analysis aimed to investigate the effect of selected control variables on the net working capital of selected tyre manufacturing companies in India. The panel regression is being applied and panel logic regression models. The models applied on 105 firm-years observations for the period 2005 to 2019. The regression results are in the table shows Model 1 using, Z-Scores shows a positive association between control variables and net working capital of firms. Thus, control variables ( $\beta = 0.055^*$ ) has a positive statistical significance of 5% in creating impact on the net working capital of firms. Therefore, the  $H_1$  is supported and shows that the selected control variables have an impact on the net working capital of the selected tyre manufacturing companies. Further the analysis in model 2 shows the ( $\beta = 0.411^{**}$ ) has 0.411 times more likely to raise working capital of the firms. Hence the hypothesis is supported at 1 per cent and indicates these variables helps in improving the working capital level of listed firms.

## Conclusion

While most companies are aware of the importance of working capital, managing consistent cash flow can be a challenge. Inventory issues, Unsteady cash flow, Overstocking problems, Internal risks, High operating costs, Manual operations, Late-paying customers are the other common challenges faced by the Manufacturing companies.

From the above study it is identified that the net working capital has an influence over the net sales and operating profits of the selected companies. Hence the companies should maintain the positive NWC to cover up its short term liabilities and to increase the sales. The positive net working capital is a sign of financial strength therefore it has to be maintained at an optimum level. And from the panel regression analysis, it is found that the control variables like financial health, Firm size, governance, CSR and financial leverage have a positive statistical significance on the NWC and profitability. And these variables helped in improving the level of working capital in the selected companies during the period of study.

## IMPACT OF TALENT MANAGEMENT IN RETAINING THE EMPLOYEES IN MANUFACTURING INDUSTRY

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### ABSTRACT

This paper aims at understanding the Talent Management Practices followed manufacturing Industry and how it influences retaining of Employees. Retaining of Talented employees has become a critical issue for the manufacturing Industry, as it is knowledge based. Human capital plays a very important role and hence the present study aims at practices to retain them. The study also attempts to analyze various factors contributing to Talent retention.

**Key Words:** Talent Management, Employee Engagement, Employee Retention,  
manufacturing industry

### INTRODUCTION

Talent management is one of the primary management tools for 21st century. It is an important tool for both the organizations and the employees. It increases productivity of the organization and develop the personal skills of employees. Talent management is recognizing employee's personal skills, abilities and offering them a suitable job. It is primary responsibility of human resource management (HRM) to employ right talent at right places. It also increases the productivity and quality of the work in the organization. Thus talent

management is an important for both the organization and the employees. In recent years, due to change in business environment, the tremendous changes have occurred in the

technology which compelled the introduction of computers in organizations. It has established the required skills and performances of human resources into entire world in the globalised business. Globalization gives an opportunity to young generation where lots of career choices are available. It is therefore, the globalization has to move with a different approach of managing people in organization. However, in the context of globalization talent management is a challenge to the organizations to explore possibilities of competent personnel. Keeping in mind this challenge of worldwide development and technical improvements organizations are trying to differentiate themselves from their rivals with the objective to gain competitive advantage. It is only way to sustain competitive advantage by managing the promising employees in the workforce, commonly referred to talent management. For example the idea of investing in human welfare schemes organizations compare best employees to generate desired results. Such practices are being followed by various multinational companies. In recent examples the Google provides privileges like car washes and Oil changes, yoga and massages, backup child care assistance and tuition fee reimbursements to their employees to motivate and apprise them of their social concern.

### **Talent Management Process**

Talent management implies choosing the right individuals, building up their potential and fuelling their eagerness, assembling their responsibility, and furthermore supporting them through times of progress. Understanding and assessing individuals is the bad-to-the-bone business of HR, making a firm establishment for our items and benefits and empowering customers to settle on reality-based choices and more keen interests in individuals.

Talent management comes into existence when the firm moves towards:

- Improve the accuracy and efficiency of hiring and promotion processes
- Clearly understand employees' strengths and development needs
- Improve management and leadership capability
- Identify and validate high potentials or successors for key positions
- Develop structured career and development opportunities for employees
- Support managers and affected employees with smooth transition processes

## Benefits of Talent Management

Right Person in the right Job Through a proper ascertainment of people skills and strengths, people decisions gain a strategic agenda. The skill or competency mapping allows the employee to take stock of skill inventories lying with the organization. This is especially important both from the perspective of the organization and as well as the employee because the right person is deployed in the right position and the employee productivity is increased. Also since there is a better alignment between an individual's interest and his job profile the job satisfaction is also increased.

- **Retaining the top talent:** Despite changes in the global economy, attrition remains a major concern of organization. Retaining top talent is important to leadership and growth in the marketplace. Organisations that fail to retain their top talent are at the risk of losing out to competitors. The focus is now on charting employee retention programs and strategies to recruit, develop, retain and engage quality people. Employee growth in a career has to be taken care of, while succession planning is being performed those who are on the radar need to be kept in loop so that they know their performance is being rewarded.
- **Better Hiring:** The quality of an organization is the quality of workforce it possesses. The best way to have talent at the top is to recruit talent from the bottom level. No wonder then talent management programs and trainings, hiring assessments have become an integral aspect of HR processes nowadays.
- **Understanding Employees Better:** Employee assessments give deep insights to the management about their employees. Their development needs, career aspirations, strengths and weaknesses, abilities, likes and dislikes. It is easier therefore to determine what motivates them to help a lot Job enrichment process.
- **Better professional development decisions:** When an organization gets to know about their employees high potential then it becomes easier to invest in their professional development. Since development calls for investment decisions towards learning, training and development of the individual either for growth, succession planning, performance management etc, an organization remains bothered where to make this investment and talent management just make this easier for them.

## **EMPLOYEES RETENTION**

Employee retention refers to numerous policies and practices that encourage staff to remain with a company for a protracted time. Every organization provides time and cash to coach its staff. When receiving coaching and a far better work expertise, the worker leaves the organization to induce a far better regular payment or different edges. At that point, the organization could be a complete loss. To stay this employee, the human resources department introduces varied policies that encourage staff to respect the organization. Most staff leaves the organization out of frustration or constant issues with their supervisor or work colleagues. Low wages, lack of growth prospects and competition also are the factors answerable for worker retention.

### **Importance of Employee Retention**

It's the responsibility of the manager or management to confirm that the workers' are happy with the work surroundings, salary, growth, analysis system, etc. worker retention follows the assorted policies and practices that enable staff to hitch a company for an extended amount of our time. In mathematical language we will say that "retention is that the rate at that your organization's current staff stay in their jobs, retention is that the opposite turnover. Therefore, if turnover is low, retention is high.

### **Employee Retention Strategy:**

Representative retention strategies every company must follow. One of the key stresses of any association is the means by which to hold representatives, all the more so the meriting workers. That it is a difficulty as well as the organization needs to begin once more with contracting new ability, preparing and supporting them.

Typical strategies used to retain employees include

- a) Better Job Design to motivate and engage the employee.
- b) Good compensation so that the employee does not look for better paying opportunities outside
- c) On job learning and training helps the employee to remain relevant and add to the skills and contribute back to the organization
- d) Better perks like insurance, car, house etc. which makes sure that employee feels comfortable and secure.
- e) Rewards and Recognition go long way in valuing the employee and making sure that he/she stays.

- f) Inclusion in company decisions will give employee the confidence of being an important part of the company.
- g) Timely interaction with the employees to make sure they are not dissatisfied with the job or role so that steps can be taken to improve the situation.
- h) In case employee decides to leave, proper channel and process should be in place to make sure company can communicate options and listen to the reasons so that employee can take a more informed decision.
- i) The above strategies are just few steps which a company can take. Employee retention is very subjective and may vary for different companies and different employees.

## **REVIEW OF LITERATURE**

Rosemary and Colvin (2011) in their study identified the factors responsible for employee attrition and suggested solution for reducing it. The study revealed that lack of satisfaction with human resource plans and policies and poor working conditions are the major reasons for employee attrition. Kishor and Jha (2012) in their study described the issues and causes related to attrition of employees and challenges in retaining the talented employees. The author reveals that employee attrition is a very serious problem and a misery of every industry. Kumari and Bahuguna, (2012) study illustrated that talent management was directly and positively associated with employee engagement. It was found that all the nine dimensions (collectively) of talent management that they had identified in the beginning of the study through exploratory research significantly predict the outcome. Rajpreet Kaur, (2013) found that almost all of the respondents were satisfied with the result of the talent management program. Almost all the employees agreed that the talent management program creating a good work culture as well as enhanced the values of employees and decreased in turnover of employees. Final observations of the study were that most of the employees were satisfied that talent management program helped to identify the strength and weakness of employees. Usha Tiwari and Devanshi Shrivastava, (2013) revealed that age of employees was independent from satisfaction but experience of employees affected the satisfaction with the practices of talent management. Finding of ANOVA revealed that each of the parameter had a different impact on effectiveness of talent management practices but a distinctive impact on employee's satisfaction.

Aerni Isa and Hazrillzwar Ibrahim, (2014) study findings will assist GLCs in minimizing talent shortage and retaining the potential talent in organizations. Talents were crucial for competitive advantage and for GLCs to enhance their contribution towards the country's economic development; GLCs needed to place its role in creating firm value at the forefront. Dhanalakshmi and BalanagaGurunathan, (2014) study found there was a widely shared belief that human resources were the Organization's primary source of Competitive Advantage; an essential asset that was becoming an increasingly short supply. An effectively implemented Talent Management strategy enhanced Employee Engagement which in turn was associated with improved Organizational performance. When an employee was highly engaged, the more likely he or she will be to say positive things about the Organization, thereby potentially influencing such variables as service quality, customer satisfaction, productivity, sales, profitability, etc., Mohamed Wahba, (2015) results indicated that seven of the nine critical success factors were statistically significant after intervention in measuring employee engagement. This opened up new questions to be explored by future research that should elaborate on the indicators of an organization's performance that do or do not have direct effects. Such as Indicators of Productivity, Quality Service and Customer Satisfaction, Company ROI should be investigated. Senthilkumar, (2016) study found that Job security, salary package and Educational Benefits were the major Talent Management Practices where the employees were highly attracted and retained as a top performer. Al-Hussaini et al. (2019) study specifically explains how companies develop talent management to increase bonds between employees, which will have an impact on increasing individual performance. This study also explains the role of talent management as a strategy and the role of employee engagement as a mediator between the two relationships.

### **IMPACT OF TALENT MANAGEMENT PRACTICES**

There is a growing need for more compelling HR evaluation and analytics, particularly when justifying funding for talent management activities to the Board. Some HR professionals struggle to evidence the talent performance link and do not sufficiently utilise workforce intelligence to create dashboards or engage in the analysis of workforce trends. Public sector organisations noted that one challenge in measuring impact lies with the difficulty of long term workforce planning when budgets are only short term at

present. This makes it difficult to forecast future workforce needs and specify the desired outcomes of talent management. One organisation described how it based talent investment decisions on a management hunch rather than proof'. A lack of workforce planning and changing priorities can lead talent management to be overly reactive. Businesses should be judging their talent investments by looking ahead at intended promotions, retention rates, and critical roles, thereby estimating possible savings or other expected benefits.

Three common areas for measurement were noted by businesses when seeking to show the impact of talent management:

- Promotion and progression
- Employee engagement
- Retention rates

**Promotion and progression:** When determining focus and process, organisations should build in ways to monitor the promotion and progression of those involved. In doing so they can review whether they are using the planned successors' who have progressed along the talent pipelines. Generally, career outcomes can be measured by recording lateral and vertical moves within the business. It is particularly important to track high potentials and leaders as they tend to receive considerable financial investment. Alongside, this it would be appropriate to measure the ratio of internal versus external appointments to executive leadership roles. This is a possible measure of whether succession and talent processes are indeed creating credible successors for senior or key posts.

**Employee Engagement:** The employee opinion survey was the most cited way of monitoring the impact of talent management systems on employee attitudes. Do employees feel valued, are they satisfied with development opportunities, and do they intend to stay? This latter question is closely monitored within the Armed Forces, for example, as they are reliant, for effective functioning, on maintaining high morale. Employee engagement has received a lot of attention in recent years because of the associated links to productivity, customer care, employee well being and retention. A third sector organisation is currently pursuing how it can link employee engagement measures captured in the staff survey to their longer term growth and specific strategic business objectives. By identifying and

understanding what is being measured in relation to talent management, business managers will be able to determine business impact more effectively.

**Retention rates:** Low levels of retention indicate a loss of knowledge and expertise through turnover. Is the business losing newly trained or developed staff? If so, is it monitoring the reasons and where leavers are going?. One organisation spoke of keeping a network of alumni (past employees) for networking purposes and potentially to attract them back later in their career. This means the organisation may also benefit from the investments that other businesses make in these individuals careers.

### **Current Trends of Talent Management in Manufacturing Industry**

The prime focal point of talent management is empowering and creating individuals, since the general population controls, the nature of an organisation, it utilises and has locally available. In the wake of procuring and conveying may state that holding and supporting talent is quintessential. Talent management otherwise called human capital management is advancing as a train that envelops procedure right from procuring individuals to holding and building up the same. Therefore, it incorporates enlistment, choice, picking up, preparing and development, competency management, progression arranging and so on.

- **Talent War:** Finding and holding the best talent is the most troublesome part of HR management. HR overview consultancies are one in their view that organisations all around are confronting a deficiency of capable workers and it is regularly harder to retain them. Additionally look into has likewise demonstrated that there is a clear connection between talent issues and in general profitability.
- **Technology and Talent Management:** Technology is progressively being brought into individuals' development. Online employee entrances have turned out to be regular place in organisations to offer simple access to workers to different advantages and plans. Moreover, employees can likewise deal with their professions through these entrances, and it additionally enables organisations to comprehend their workers better.
- **Promoting Talent Internally:** An individual is contracted, when there is a fit between his capacities or aptitudes and the prerequisites of the organisation. The following stage is empowering learning and development of a similar, so he/she

remains with the organisation. This is worker retention. An empowered or engaged means an enabled organisation.

- It is also of interest to organisations to know their skills inventories and then develop the right individual for succession planning internally.
- **Population Worries Globally:** World populations are either young or ageing. For instance, stats have it that by 2050 60% of Europe's working population will be over 60! On the other hand, a country such as India can boast of a young population in the coming and present times. Population demographics are thus an aggravating factor for people managers. Still, more researches have predicted that demographic changes in the United States will lead to a shortage of 10 million workers shortly.
- **Talent Management to rescue HR:** HR has been constrained to centre around subjective angles similarly and considerably more than quantitative perspectives such as the head check and so on. Through talent management, more exertion is currently being laid on outlining and keeping up worker scorecards, and employee studies for guaranteeing that talent is supported and developed ceaselessly.
- **Increase in Employer of Choice Initiatives:** An organisation is perceived value as an employer as helps improve its brand value in the eyes of its consumer. Most importantly, it helps it attract the right talent.

## Conclusion

Talent management is alone an integrated process it will be more successful when it is constructed as an integrated pool to provide data to all of the other functions instead of building it as a under process. Especially if talent management procedures are applied distributed under functions will probably be lost or decrease while transmitting to other actions. Talent management is arguably a compelling approach for dealing with the impending labour crisis as well as effective policies for enhancing the positioning of an organization as well as its corporation brand. Retention will increase a direct or indirect impact on the company's employee retention. The benefits of high employee retention for the company will reduce costs, be they recruitment costs or training costs. It is known that the automotive industry requires a large amount of training costs, especially on the part of production employees, which is a must for companies to provide training to their employees so that training costs can be reduced by increasing employee retention.

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## IMPACT OF SOCIAL MEDIA AFFECTING MENTAL HEALTH

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### **Abstract**

Now a day's which is readily available through the advancement of technology, thereby opening a platform for discussion between social media and mental health of present era. From the dawn of internet and social networking sites human resources of contemporary world have become more social virtually but less practically. This virtual life is isolating present man from other fellow beings thereby affecting his health (mental & physical) and overall balance. Increased usage of social networking among adults of the present era is a matter of concern for the parents, society & researchers, as there are always two sides (positive & negative) of every innovation. The aim of present research is to explore the effect of social media on mental health. As a confronting population of the present era, younger generation is experiencing embryonic stage of life and is at higher risk of serious mental health problem. Younger generation of present era is acting as active users of social media which has affinity towards the problems of mental health. The present perilous situation requires more understanding, to know relation between social media and mental health problems is just a kick off point. Exploring and understanding the means with the help of which social media is affecting mental health of present younger generation is succeeding step which can illuminate the connections which are at play among these variables of young generation

**Keyword:** Mental Health, Social Networking, Internet, Social Media,

### **I. Introduction**

The imbalance created by the excessive usage of social media is a great concern for parents, researchers and society regarding the mental health of individuals. One of the most common activities of present generation is excessive use of social media web sites. Social media can

be considered as those websites which allows interaction through web 2.0 & 3.0 sites including application like Facebook, Twitter, MySpace, online gaming, virtual worlds like Second Life, Sims, YouTube, Blogs and so on. These sites of present era are growing exponentially and act as easy available portals for communication and entertainment for younger generation. Merriam-Webster (2014) defined social media as, “forms of electronic communication (as Web sites for social networking and micro-blogging) through which users create online communities to share information, ideas, personal messages, and other content (as videos).” Virtual platforms of social media like Facebook, Twitter etc [1]. significantly enhanced the virtual environment from past decade by facilitating users to interchange their feelings, ideas, personal information, pictures and videos at an unprecedented proportion.

This lack of understanding is predominantly a grave concern in the context of present younger generation, as teens and young adults spends their good amount of time in online socialization and hence are potentially experiencing a greater risk of negative effects. A number of research studies classify connection between use of social media and its undesirable outcomes like increase in anxiety, stress, depression and loneliness. The increased usage of social media by younger generation raises alarms regarding its adverse effects.

## **II. Aspects of Social Media**

### **a) The Positive Aspects of Social Media**

Social media helps to Communicate and stay up to date with family and friends around the world, Find new friends and communities network with other people who share similar interests or ambitions, Join or promote worthwhile causes; raise awareness on important issues, Seek or offer emotional support during tough times, Find vital social connection if social media user live in a remote area, for example, or have limited independence, social anxiety, or are part of a marginalized group, Find an outlet for your creativity and self-expression, Discover (with care) sources of valuable information and learning[2].

### **b) The Negative Aspects of Social Media**

Multiple studies have found a strong link between heavy social media and an increased risk for depression, anxiety, loneliness, self-harm, and even suicidal thoughts. Social media may

promote negative experiences such as Inadequacy about your life or appearance, Fear of missing out (FOMO) and social media addiction, isolation, Depression and anxiety, Cyber bullying, Self-absorption[3].

### c) **Signs that Social Media is Impacting Mental Health**

Everyone is different and there is no specific amount of time spent on social media, or the frequency you check for updates, or the number of posts you make that indicates your use is becoming unhealthy. Rather, it has to do with the impact time spent on social media has on your mood and other aspects of your life, along with your motivations for using it[4].

For example, your social media use may be problematic if it causes you to neglect face-to-face relationships, distracts you from work or school, or leaves you feeling envious, angry, or depressed. Similarly, if you're motivated to use social media just because you're bored or lonely, or want to post something to make others jealous or upset, it may be time to reassess your social media habits.

Indicators that social media may be adversely affecting mental health include:

- i. **Spending more time on social media than with real world friends.** Using social media has become a substitute for a lot of your offline social interaction. Even if you're out with friends, you still feel the need to constantly check social media, often driven by feelings that others may be having more fun than you [5].
- ii. **Comparing unfavourably with others on social media.** Social media user have low self-esteem or negative body image. Social media user may even have patterns of disordered eating.
- iii. **Experiencing cyber bullying.** Are social media user worry that Social media user have no control over the things people post about you.
- iv. **Being distracted at school or work.** Social media user feel pressure to post regular content about yourself, get comments or likes on Social media user posts, or respond quickly and enthusiastically to friends' posts.

- v. **Having no time for self-reflection.** Every spare moment is filled by engaging with social media, leaving Social media user little or no time for reflecting on who Social media user are, what Social media user think, or why Social media user act the way that you do—the things that allow you to grow as a person.
- vi. **Engaging in risky behaviour in order to gain likes,** shares, or positive reactions on social media. Social media user play dangerous pranks, post embarrassing material, cyber bully others, or access your phone while driving or in other unsafe situations[6].

### III Conclusion:

This investigator reviewed and synthesized extensively related literature of social media and some factors of mental health. The relation between usage of social media and depraved mental health determines the significance of the topic. Social media usage have dangerous effects for younger generation because problems related mental health which gets developed during young period can act as an epidemic for any individual throughout the life. The significance of continual enquiry and examination on this construct can't be overstated. Present literature reflects the deprived association between usage of social media and mental health of younger generation and also demonstrates the significance of present topic. It is clear that adverse effects of social media usage obligate propounded consequences for present generation especially for younger ones. The literature reviewed in various section of present paper elucidates the substantial value of association between social media usage and mental health problems of present era; also present paper illuminates the complexity of relationship. Present Paper offers an insight in the complex connection of social media usage and mental health problems of younger generation. These problems can be identify as online harassment, depression, sexting/texting, stress, fatigue, loneliness, decline in intellectual abilities, cyber bullying, emotion suppression and lack of concentration. These all things directly or indirectly effects on mental health of younger generation. A proper awareness movement can be organized to understand the effects of usage of social media on mental health on younger generation. The social networking sites should be constrained to certain age limit. Any social media application that has not positive effect like discrimination, violence and racism etc. should be dissolved at once completely.

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# ENSEMBLE LEARNING MODEL WITH DEEP FEATURE EXTRACTION FOR CROP YIELD PREDICTION

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**Abstract:** The fundamental goal of this study is to build and use heuristic-based ensemble learning for improved agricultural production prediction. The Squirrel Tunicate Swarm Algorithm (STSA), a hybrid Squirrel Search Algorithm (SSA) and Tunicate Swarm Algorithm (TSA), extracts deep features using the Optimized Convolutional Neural Network (O-CNN). The datasets for agricultural production prediction are obtained from public sources, and deep features are extracted using an Optimized Convolutional Neural Network (O-CNN). Following that, the optimum deep features are exposed to Heuristic-based Ensemble learning using three distinct classifiers: Linear Regression (LR), Support Vector Regression (SVR), and Long-Short-Term-Memory Regression (LSTM). The suggested STSA is utilized to calibrate the ensemble learning's three classifiers. When comparing the predicted performance of the developed model to that of other procedures, the proposed Heuristic ensemble yield framework beats previous techniques.

**Keywords-**Novel Crop Yield Prediction; Deep Feature Extraction; Optimized Convolutional Neural Network; Heuristic-based Ensemble Learning; Squirrel Tunicate Swarm Algorithm

## 1. Introduction

Agriculture is the one amongst the substantial area of interest to society since a large portion of food is produced by farmers. Currently, many countries still experience hunger because of the shortfall or absence of food with a growing population. Expanding food production is a compelling process to annihilate famine. Hence crop protection; land assessment and crop yield prediction are of more considerable significance to global food production. Crop yield mainly depends upon climatic conditions, soil quality, landscapes,

pest infestations, water quality and availability, genotype, planning of harvest activity. Reliable prediction of crop yields can help farmers diagnose crop conditions and adopt necessary measures for better production as well as enable policymakers to effectively manage local food supplies, ensure timely import and exports, and achieve food security. Therefore, considerable effort is presently being devoted to crop yield prediction. In particular, the use of satellite images, which is the only means for predicting crop yields in large and inaccessible areas, has gained attraction. Application of remote sensing data to agriculture and crop production has been popular, especially based on the predictive empirical models, because it is possible to efficiently and quantitatively estimate crop yield.

Machine learning (ML) algorithms parse and learn data and then use the learning to make decisions based on input variables. ML can effectively overcome the drawbacks of traditional empirical methods for the prediction of crop yield with satellite images in large areas. Artificial neural networks (ANNs), support vector machines (SVMs), and random forests (RF) have long been used in the field of crop yield prediction. These ML techniques can predict crop yields more accurately than existing empirical regression models by addressing the non-linear relationship between the input environment variables and the yield without the complicated crop growth parameters used in the process-based crop models. However, problems such as over fitting, prolonged training, and relatively few hidden layers limit their ability to solve non-linear problems and perform crop yield prediction in large areas. Recent breakthroughs in deep learning (DL) techniques based on end-to-end training through deep hidden layers have facilitated sophisticated and accurate crop yield prediction. Thus, DL is being actively used for crop yield prediction. In particular, comparative studies have verified that DL models have exhibited better performance than existing regression or ML methods in predicting crop yield. Deep learning is a subgroup of machine learning that can determine outcomes from varying arrangements of raw data.

Deep learning algorithms can develop a probability model by taking a decade of field data and providing insights about crop performance under various climatic conditions. A deep Q-Learning based DRL algorithm is used to strengthen the crop yield forecasting efficiency with the best rewarding iterations. Reinforcement learning is broadly designed in areas such as operations research, game theory, multi-agent systems, and control theory. In the RL based methods, the learning efficiency of the yield predicting agents is determined by the overall rewards. Deep convolution neural network model is used to predict the crop yield estimation of the rice crop at the ripening stage. The CNN network learns the

significant spatial features concerning the crop yield from the high spatial resolution RGB image. Deep learning enabled the crop mapping strategy to identify the crop yield in Crop Yield Prediction Using DRL Model. One important aspect of an LSTM network is its ability to maintain a cell state from the previous sequence of observations while eliminating irrelevant information. A deep LSTM for county-based corn yield prediction using soil and weather data. The results in the state of Iowa showed the predictive power of the LSTM for yield estimation. Thus, the suggested crop yield protection is designed by adopting the deep learning and machine learning techniques.

## 1. Related works

In 2021 Gavahi *et al.* [1] have proposed DeepYield, a combined structure that integrates the ConvLSTM layers with the 3-Dimensional CNN (3DCNN) for more accurate and reliable spatiotemporal feature extraction. The models are trained by using county-based historical yield data and MODIS Land Surface Temperature (LST), Surface Reflectance (SR), and Land Cover (LC) data over 1836 primary soybean growing counties in the Contiguous United States (CONUS). The forecasting performance of the developed models is compared against the competing approaches including Decision Trees, CNN + GP, and CNNLSTM and results indicate that DeepYield significantly outperforms these techniques and also performs better than both ConvLSTM and 3DCNN.

In 2020 Elavarasan *et al.* [2] have constructed a Deep Recurrent Q-Network model which is a Recurrent Neural Network deep learning algorithm over the Q-Learning reinforcement learning algorithm to forecast the crop yield. The sequentially stacked layers of Recurrent Neural network is fed by the data parameters. The Q-learning network constructs a crop yield prediction environment based on the input parameters. A linear layer maps the Recurrent Neural Network output values to the Q-values. The reinforcement learning agent incorporates a combination of parametric features with the threshold that assist in predicting crop yield. Finally, the agent receives an aggregate score for the actions performed by minimizing the error and maximizing the forecast accuracy. The proposed model efficiently predicts the crop yield outperforming existing models by preserving the original data distribution with an accuracy of 93.7%.

In 2016 Holzman *et al.* [3] have analyzed the aptitude of temperature vegetation dryness index (TVDI) to forecast maize yield. MODIS/AQUA enhanced vegetation index and land surface temperature (LST) at 1 km were used to calculate TVDI and maize yield

over a large agricultural area of Argentine Pampas. The comparison between TVDI and official yield statistics was carried out to derive regression models in two agro-climatic zones, obtaining linear and quadratic adjustments. The models account for between 73% and 83% of yield variability, with the best prediction in the humid zone. The RMSE values ranged from 14% to 19% of average yield. The bias showed a slightly higher difference between predicted and observed yield data in semi-arid zone. The models showed aptitude to estimate yield with reasonable accuracy 8–12 weeks before harvest. In addition, the TVDI-maize yield relationship and the impact of sub monthly water stress were evaluated at field scale using yield measurements to ensure the analysis on maize. The highest R2 (0.61) was obtained using monthly values suggesting that the entire critical stage should be taken into account for yield forecasting. Although these results would not be directly extrapolated to other agricultural regions in the world, the proposed model is promising for forecasting spatial yield in other regions with poor data coverage several weeks before harvest.

In 2019 Nevavuori *et al.* [4] have evaluated machine learning methods for remote sensing based yield prediction requires availability of yield mapping devices, which are still not very common among farmers. In this study Convolutional Neural Networks (CNNs) – a deep learning methodology showing outstanding performance in image classification tasks – are applied to build a model for crop yield prediction based on NDVI and RGB data acquired from UAVs. The effect of various aspects of the CNN such as selection of the training algorithm, depth of the network, regularization strategy, and tuning of the hyperparameters on the prediction efficiency are tested. Using the Adadelta training algorithm, L2 regularization with early stopping and a CNN with 6 convolutional layers, mean absolute error (MAE) in yield prediction of 484.3 kg/ha and mean absolute percentage error (MAPE) of 8.8% was achieved for data acquired during the early period of the growth season (i.e., in June of 2017, growth phase<25%) with RGB data. When using data acquired later in July and August of 2017 (growth phase>25%), MAE of 624.3 kg/ha (MAPE: 12.6%) was obtained. Significantly, the CNN architecture performed better with RGB data than the NDVI data.

In 2021 Jeong *et al.* [5] we propose a methodology for the early prediction of rice yield at pixel scale combining a crop model and a deep learning model for different agricultural systems throughout South and North Korea. Initially, satellite-integrated crop models were applied to obtain a pixel-scale reference rice yield. Then, the pixel-scale

reference rice yields were used as target labels in the deep learning model to leverage the advantages of crop models. Models of five different deep learning network architectures were employed to help determine the hybrid structure of long-short term memory (LSTM) and one-dimensional convolutional neural network (1D-CNN) layers by predicting the optimal model about two months ahead of harvest time. The suggested model showed good performance [ $R^2 = 0.859$ , Nash-Sutcliffe model efficiency = 0.858, root mean squared error = 0.605 Mg ha<sup>-1</sup>], with specific spatial patterns of rice yields for South and North Korea. Analysis of the relative importance of the input variables showed the water-related index and maximum temperature in North Korea and the vegetation indices and geographic variables in South Korea to be crucial for predicting rice yields. The proposed approach successfully predicted and diagnosed rice yield at the pixel scale for inaccessible locations where reliable ground measurements are not available, especially North Korea.

In 2016 Bose *et al.* [6] have introduced the first SNN computational model for crop yield estimation from normalized difference vegetation index image time series. It presents the development and testing of a methodological framework which utilizes the spatial accumulation of time series of Moderate Resolution Imaging Spectroradiometer 250-m resolution data and historical crop yield data to train an SNN to make timely prediction of crop yield. The research work also includes an analysis on the optimum number of features needed to optimize the results from our experimental data set. The proposed approach was applied to estimate the winter wheat (*Triticum aestivum* L.) yield in Shandong province, one of the main winter-wheat-growing regions of China. Our method was able to predict the yield around six weeks before harvest with a very high accuracy. Our methodology provided an average accuracy of 95.64%, with an average error of prediction of 0.236 t/ha and correlation coefficient of 0.801 based on a nine feature model.

In 2021 Qiao *et al.* [7] have proposed a novel 3-D convolutional neural multikernel network is proposed to capture hierarchical features for predicting crop yield. First, a full 3-D convolutional neural network is constructed to maximally explore deep spatial-spectral features from multispectral images. Then, a multikernel learning (MKL) approach is proposed for fusion of in-train image deep spatial-spectral features and intersample spatial consistency features. Specifically, we assign a group of nonlinear kernels for each feature in the MKL framework, which provides a robust way to fit features extracted from different domains. Finally, the probability distribution of prediction results is obtained by a kernel-based method. We evaluate the performance of the proposed method on China wheat yield

prediction and offer detailed and systematic analyses of the performance of the proposed method. In addition, our method is compared with several competing methods. Experimental results demonstrate that the proposed method has certain advantages and can provide better prediction performance than the competitive methods.

In 2021 Ma *et al.* [8] have designed an unsupervised adaptive domain adversarial neural network (ADANN). Specifically, through domain adversarial training, the ADANN model reduced the impact of domain shift by projecting data from different domains into the same subspace. Also, the ADANN model was designed to be trained in an adaptive way, which guaranteed the model can learn the domain-invariant features and perform accurate yield prediction simultaneously. Informative variables including time-series vegetation indices and sequential weather observations were first collected from multiple data sources and aggregated to the county level. Then, we trained the ADANN model with the extracted features and corresponding reported county-level corn yield from the U.S. Department of Agriculture (USDA). Finally, the trained model was evaluated in four testing years 2016–2019. The U.S. Corn Belt was used as the study area and counties under study were grouped into two diverse ecological regions. The experimental results showed that the developed ADANN model had better performance than three other state-of-the-art machine learning models in both local experiments (train and test in the same region) and transfer experiments (train and test in different regions). As the first study using adversarial learning for crop yield prediction, this research demonstrates a novel solution for improving model transferability on crop yield prediction..

## 2. Literature Review

Crop yield prediction is an important agricultural problem and it is extremely challenging due to its dependence on multiple factors such as crop genotype, environmental factors, management practices, and their interactions. Agricultural yield primarily depends on weather conditions (rain, temperature, etc), pesticides. Table 1 summarizes the benefits and challenges in crop yield prediction. ConvLSTM[1] provides more precise crop yield forecasts and speedup the learning process. However, it requires solutions to supply information at finer scale and further investigation is necessary for spatial correlation. DRQN [2] is used to enforce the crop yield forecasting efficiency and different dataset parameters are learned to solve the crop yield prediction issues .But, it needs to enhance the computing effectiveness in training process. TVDI [3] has the ability to predict the maize

yield before 8 to 12 weeks and denotes the excess water rate in the yield. However, the excess water availability affects the performance of the model. CNN [4] is capable of precise yield estimates based on RGB images and gives high accuracy with RGB images than NDVI. But, the training of large set of features is required for better accuracy. LSTM & 1D-CNN [5] It is capable to predict the crop yield even in remote areas and the crop yield prediction performance is high. However, it still remains difficult for accurate analysis in crop yield prediction. SNN [6] has the potential to capture the spatiotemporal patterns from spatiotemporal data and gives good prediction on winter wheat yield production before the harvest. But, various divisions the prediction of crop yield is decreased. 3D CNN & MKL [7] it illustrates probable applications for different prediction problems and demonstrates various invidious feature representations. However, to predict the crop yield the proper construction of 3D CNN is an essential problem and it does not work in early months because the prediction in month is not obvious. ADANN [8] it helps in the reduction of domain shift impact efficiency and it keeps balancing between domain loss and prediction loss. But, to design the feature extractions advanced architectures is required and when spatial domains are directly applied to regions it may loses their validity. The drawbacks associated in this paper are examined and it will be enhanced in future works.

**Table 1:** Features and challenges of crop yield prediction

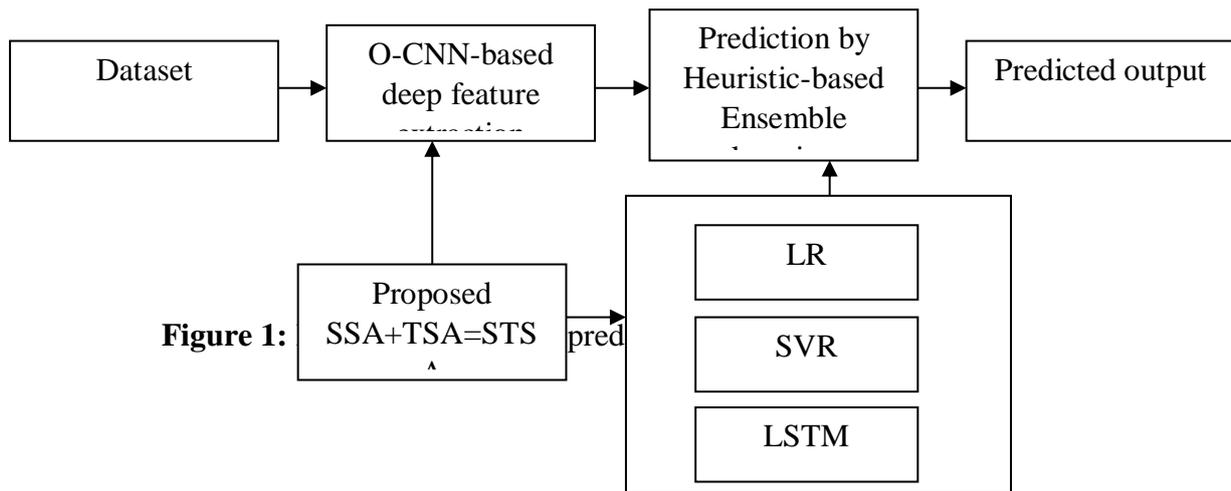
<b>Author [citation]</b>	<b>Methodology</b>	<b>Features</b>	<b>Challenges</b>
Gavahi <i>et al.</i> [1]	ConvLSTM	<ul style="list-style-type: none"> <li>• It provides more precise crop yield forecasts.</li> <li>• It speedup the learning process.</li> </ul>	<ul style="list-style-type: none"> <li>• It requires solutions to supply information at finer scale.</li> <li>• Further investigation is necessary for spatial correlation.</li> </ul>
Elavarasan <i>et al.</i> [2]	DRQN	<ul style="list-style-type: none"> <li>• It is used to enforce the crop yield forecasting efficiency.</li> <li>• Different dataset parameters are learned to solve the crop yield prediction issues</li> </ul>	<ul style="list-style-type: none"> <li>• It needs to enhance the computing effectiveness in training process.</li> </ul>

Holzman <i>et al.</i> [3]	TVDI	<ul style="list-style-type: none"> <li>• It has the ability to predict the maize yield before 8 to 12 weeks.</li> <li>• It denotes the excess water rate in the yield.</li> </ul>	<ul style="list-style-type: none"> <li>• The excess water availability affects the performance of the model.</li> </ul>
Nevavuori <i>et al.</i> [4]	CNN	<ul style="list-style-type: none"> <li>• It is capable of precise yield estimates based on RGB images.</li> <li>• It gives high accuracy with RGB images than NDVI.</li> </ul>	<ul style="list-style-type: none"> <li>• The training of large set of features is required for better accuracy.</li> </ul>
Jeong <i>et al.</i> [5]	LSTM & 1D-CNN	<ul style="list-style-type: none"> <li>• It is capable to predict the crop yield even in remote areas.</li> <li>• The crop yield prediction performance is high.</li> </ul>	<ul style="list-style-type: none"> <li>• It still remains difficult for accurate analysis in crop yield prediction.</li> </ul>
Bose <i>et al.</i> [6]	SNN	<ul style="list-style-type: none"> <li>• It has the potential to capture the spatiotemporal patterns from spatiotemporal data.</li> <li>• It gives good prediction on winter wheat yield production before the harvest.</li> </ul>	<ul style="list-style-type: none"> <li>• In various divisions the prediction of crop yield is decreased.</li> </ul>
Qiao <i>et al.</i> [7]	3D CNN & MKL	<p>It illustrates probable applications for different prediction problems.</p> <p>It demonstrates various invidious feature representations.</p>	<ul style="list-style-type: none"> <li>• To predict the crop yield the proper construction of 3D CNN is an essential problem.</li> <li>• It does not work in early months because the prediction in month is not obvious.</li> </ul>

Ma <i>et al.</i> [8]	ADANN	<ul style="list-style-type: none"> <li>• It helps in the reduction of domain shift impact efficiency.</li> <li>• It keeps balancing between domain loss and prediction loss.</li> </ul>	<ul style="list-style-type: none"> <li>• To design the feature extractions advanced architectures is required.</li> <li>• When spatial domains are directly applied to regions it may loses their validity.</li> </ul>
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### 3. Proposed Architecture Model of Crop Yield Prediction

Crop yield forecasting is of great importance to crop market planning, crop insurance, harvest management, and optimal nutrient management. Deep learning-based models are broadly used to extract significant crop features for prediction. Recently, statistical machine learning and deep learning methods have been widely explored for corn yield prediction. Though successful, machine learning models generated within a specific spatial domain often lose their validity when directly applied to new regions. To address this issue, the main intention of this proposal is to design and implement Heuristic-based Ensemble learning for enhanced crop yield prediction. The processing steps of the proposed model will be (a) Data collection, (b) deep feature extraction, and (c) prediction. The datasets for crop yield prediction will be gathered from the public sources, and the deep feature extraction will be performed by the Optimized Convolutional Neural Network (O-CNN), whose parameters will be optimized by the hybrid Squirrel Search Algorithm (SSA) [26] and Tunicate Swarm Algorithm (TSA) [27]. The extracted optimal deep features will be subjected to the Heuristic-based Ensemble learning with three different classifiers like Linear Regression (LR), Support Vector Regression (SVR), and Long-Short-Term-Memory (LSTM). The proposed SSA+TSA will be used for tuning the three classifiers of the ensemble learning. The forecasting performance of the developed model is compared against the competing approaches, and the evaluation indicates that the proposed Heuristic ensemble yield model outperforms better than the conventional methods. The proposed model is shown in Fig. 1.



**Figure 1:**

#### 4.1 Proposed Squieral Tunnicate Search Algorithm(STSA)

The proposed STSA is utilized for improving the deep feature extraction phase and the prediction phase of the developed novel crop yield prediction model. TSA [27] imitates "jet propulsion and tunicate swarm" characteristics. It's a approach for dealing with "non-linear constrained situations." It is triggered to live in the deep ocean by tunicate swarm behaviour. A tunicate must solve three conditions to effectively imitate jet propulsion characteristic: avoid conflicts within candidates, follow the path of the best candidates position, and stay near to the optimal candidates. Swarm activity will maintain a variety of search agents up to date on the best response.

Improved convergence, global optimal solutions, decreased susceptibility, enhanced scalability and sensitivity, and the opportunity to implement it to real-world case scenarios are just a few of the benefits of the TSA. It is, however, unable to solve "binary or multi-objective optimization issues." The SSA is integrated into it to maximize performance, resulting in the STSA algorithm. This STSA provides better computation time and makes solving "binary and multi-objective optimization problems" in easy way.

The SSA optimizer [28] mimics the dynamic foraging characteristics of southern flying squirrels, as well as their effective movement technique of gliding. Gliding represents a powerful technique that tiny animals employ to traverse large distances. When flying squirrels commence foraging, the search process starts. Squirrels look for food via gliding from one tree to the next during the warm season (fall). They switch locations and explore various portions of the forest while doing so. Since the climatic circumstances are hot enough, they can satisfy their daily energy demands more rapidly by eating acorns, which are plentiful, and they eat acorns as soon as they locate them. They begin looking for the best food source for the winter when they have met their daily energy requirements (hickory

nuts). Storage of hickory nuts will aid them in meeting their energy needs in inclement weather, reducing the need for costly foraging expeditions and so increasing their chances of survival. In deciduous woods, a decrease of leaf cover in the winter increases the risk of predation, therefore they are becoming less active but do not hibernate. Flying squirrels start active again at the completion of the winter season. This is a continuous process that lasts the whole lifespan of a flying squirrel and is the basis of SSA. The below assumptions are taken into account when simplifying the mathematical method.

- In a deciduous forest, there are n flying squirrels, and one squirrel is supposed to be on one tree.
- By demonstrating dynamic foraging characteristics, each flying squirrel looks for food and makes the most use of the available food supplies.
- There are only three sorts of trees in the forest: regular trees, oak trees, and hickory trees.
- Three oak trees and one hickory tree are considered to be present in the woodland region under investigation.

In the proposed STSA, the update takes place by the predator presence probability  $Q_{dq}$  through the best and worst fitness that is modelled as in Eq. (1).

$$Q_{dq} = \frac{bestfit}{worstfit} \quad (1)$$

If  $Q_{dq} < 0.5$ , then the upgrade taken by the dynamic foraging behaviour of SSA in terms of three situations as below

**Case 1:** Flying squirrels may migrate to hickory nut trees  $FT_{au}$ . Here, the new squirrel position may be found as in Eq. (2).

$$FT_{au}^{u+1} = \begin{cases} FT_{au}^u + e_h \times H_d \times (FT_{hu}^u - FT_{au}^u) & S_1 \geq Q_{dq} \\ random\ location & otherwise \end{cases} \quad (2)$$

In the above equation,  $e_h$  describes the random gliding distance,  $S_1$  shows a random value between 0 and 1,  $FT_{hu}$  defines the position of the flying squirrel who arrived the hickory nut tree, and  $u$  depicts the present iteration  $H_d$ , the gliding constant in the mathematical equation, is utilized to create a balance among exploration and exploitation. Its value has a substantial impact on the suggested algorithm's performance.

**Case 2:** To meet their daily energy demands, flying squirrels on normal trees  $FT_{nu}$  may migrate to acorn nut trees. In this situation, a novel squirrel location may be derived as below in Eq. (3).

$$FT_{nu}^{u+1} = \begin{cases} FT_{nu}^u + e_h \times H_d \times (FT_{au}^u - FT_{nu}^u) & S_2 \geq Q_{dq} \\ random\ location & otherwise \end{cases} \quad (3)$$

Here, a random number is shown by  $S_2$  in  $[0,1]$ .

**Case 3:** Some squirrels that are on normal trees and have already devoured acorn nuts may migrate to hickory nut trees in order to save hickory nuts for consumption during times of food scarcity. In this situation, a novel squirrel location may be derived as below in Eq. (4).

$$FT_{nu}^{u+1} = \begin{cases} FT_{nu}^u + e_h \times H_d \times (FT_{hu}^u - FT_{nu}^u) & S_3 \geq Q_{dq} \\ random\ location & otherwise \end{cases} \quad (4)$$

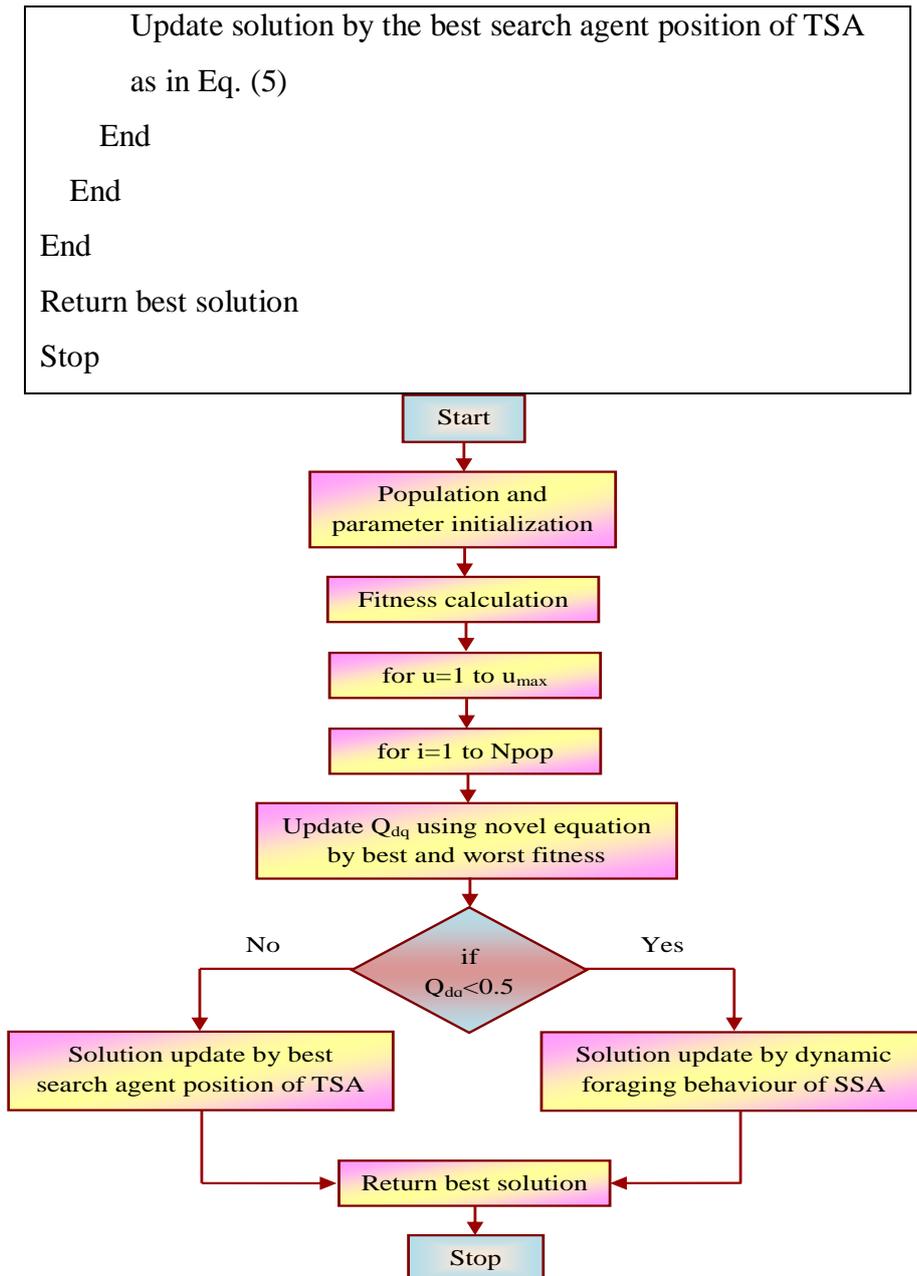
In the above equation,  $S_3$  shows a random number in  $[0,1]$ .

Otherwise, if  $Q_{dq} \geq 0.5$ , then the update takes place by the best search agent position of TSA as in Eq. (5).

$$F\vec{T}_{nu}(u) = \begin{cases} F\vec{X} + \vec{F} \cdot P\vec{I} & if\ S \geq 0.5 \\ F\vec{X} - \vec{F} \cdot P\vec{I} & if\ S < 0.5 \end{cases} \quad (5)$$

Here, the food source position is shown by  $F\vec{X}$ , updated tunicate position is shown by  $F\vec{T}_{nu}(u)$ , new search agent position is shown by  $\vec{F}$ , the space among the candidate and the food source is shown by  $P\vec{I}$ , and a random number in  $[0,1]$  is correspondingly shown by  $S$ . The pseudo code of developed STSA is given in Algorithm 1 and its flow diagram is in Fig. 2.

<b>Algorithm 1: Proposed STSA</b>
Start
Population and parameter initialization
Fitness calculation
For $u = 1$ to $u_{max}$
For $i = 1$ to $Npop$ (population size)
Update predator presence probability $Q_{dq}$ using the novel equation by best and worst fitness as in Eq. (1)
If $Q_{dq} < 0.5$
Update solution using the dynamic foraging behaviour of SSA as in Eq. (2), Eq. (3), and Eq. (4)
Else



**Figure 2.** Flow diagram of offered STSA

**Conclusion**

This paper's major goal was to create and apply Heuristic-based Ensemble learning for improved crop yield prediction. The datasets for crop yield prediction were gathered from public sources, and the deep feature extraction was employed by the O-CNN. The deep feature extraction was performed by the O-CNN, whose parameters were optimized by the STSA. The extracted optimum deep features were subjected to Heuristic-based Ensemble learning with three distinct classifiers: LR, SVR, and LSTM. The suggested STSA was utilized to tune the ensemble learning's three classifiers.

The proposed crop yield prediction will be implemented in Python, and the experimental analysis will be carried out. Here, the performance of the proposed model will be compared over the conventional models in terms of Type 1 and Type 2 measures. Here, Type I measures are positive measures like Accuracy, Sensitivity, Specificity, Precision, Negative Predictive Value (NPV), F1Score and Mathews correlation coefficient (MCC), and Type II measures are negative measures like False positive rate (FPR), False negative rate (FNR), and False Discovery Rate (FDR).

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## A CONCEPTUAL STUDY ON BLUE OCEAN STUDY IN INDIA

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### ABSTRACT

This study has made an attempt to understand the concepts of blue ocean strategy. Blue Ocean Strategy is a marketing theory in which there is little or no competition in the business that enters the market. There is a very highly competitive advantage as well as low-cost pressure given by these new markets for any company. This idea “*Blue Ocean Strategy: How to Create Uncontested Market Space and the Make Competition Irrelevant.*” was proposed by Professors W. Chan Kim and Renee Mauborgne in their book. This blue ocean strategy is of great use in the market when supply exceeds demand. The term ‘Blue Ocean’ was termed for those markets that are associated with high potential profits. It has been given reference with the term ‘empty ocean’ in a market where there are many opportunities that comes up when innovation takes place. Objectives of the study are to understand the concepts of blue ocean strategy, to highlight the blue ocean strategy framework, to explore the reviews about blue ocean strategy, to explain the advantages and disadvantages of blue ocean strategy. The study was concluded into that the Blue Ocean Strategy is indeed path-breaking. It is recognised as a formidable strategic planning tool that helps companies acquire new markets.

**Key words: Blue Ocean, Strategy, Principles, Advantages**

### INTRODUCTION

The Blue Ocean Strategy proposes that instead of fighting for a share in the highly competitive but shrinking market, feast on the unexplored new segments, thereby making the competition irrelevant. Since market boundaries are not defined, it can be reconstructed by new ideas of the industry players. Creating a blue ocean is difficult and generally requires the company to innovate (a concept coined as value innovation) in a way that creates a previously non-existent or unrealized demand. Value innovation involves the pursuit of both differentiation and low-cost strategies to open up new and non-competitive markets. This innovation may take place at any or all stages of the value chain.

## OBJECTIVES OF THE STUDY

1. To understand the concepts of blue ocean strategy.
2. To highlight the blue ocean strategy framework.
3. To explore the reviews about blue ocean strategy.
4. To explain the advantages and disadvantages of blue ocean strategy.

## ABOUT BLUE OCEAN STRATEGY

Based on the eponymously titled book authored by INSEAD professors W. Chan Kim and Renée Mauborgne, '**Blue Ocean Strategy**' is a marketing theory. In the book, the professors assert the hypothesis that strategic moves can create a leap in a company's value, along with its employees and buyers. At the same time, it unlocks a new demand and makes the competition irrelevant. The strategy revolves around devising innovative products and services and acquiring the uncontested market by creating new demand. It further states that there is no relevance of peer competition since the industries designed under this strategy are non-existent. The result is the development of a market that is devoid of competition and allows for extensive growth or growth potential without the need for competitive differentiation or cost advantage.

### Literature review

**Alex Ng Hou Hong (2011)** from this preliminary literature review, blue ocean strategy is identified as one of the recent research themes that worth further studies. Further review of the current literature on blue ocean strategy reveals a series of related issues that establish the basis for the research agenda and identifies the main research question as well as sub-questions for further research. The paper proposes the research objectives based on the research questions and provides a direction and the justification for future research. The initial review on strategy literature has considerably identified blue ocean strategy as the research theme and its related issues has been critically reviewed and discussed to propose a series of research questions to form a basis for the further research. Therefore, the next phase in the research agenda will be to propose the research objectives and directions for future study.

**Bridin Roacha (2020)** this particular research was based on the Blue Ocean strategy that has been adopted by the company Tata Motors and the research objectives had specified that the effectiveness of the strategy with respect to the marketing and business objectives

of the company had to be evaluated in the real world scenario. The objective of the entire research process is to establish the effectiveness of the strategy adopted by the company in the industry and in turn, suggest any improvements in the same so that there is enhancement of the competitive position of the company in the industry. A key recommendation to the company is to patent the technology and knowledge resources used in the company in the production of the competitively priced utility vehicles in the market which would enable the company to safeguard its key significant resources and at the same time prevent the same from being stolen or used by competing organisations without the consent of the company. Otherwise, it might lead to a scenario whereby the company's technology and knowledge resource are adopted and used by competitors, which will lead to the loss of the competitive position the company is in.

**Mukhlis Yunus (2021)** research on blue ocean strategy from 1998 until recently has gained a lot of attention from researchers. From a series of research themes associated with the Blue Ocean Strategy, we strive to set up a framework provided as a cornerstone to test the BOS impact on competitive advantage and its impact on company performance. The conceptual framework is expected to be able to lay the foundational for the next research process and further contribute to concept of blue ocean strategy, competitive advantage, and performance of the company. Methods variation and tools inconsistencies in assessing BOS are the still open to be researched. Similarly, a review of the implications of the BOS implementation on competitive advantage and firm performance is still not getting adequate test. Through further research, it is believed that the gap can filled up and enable to confirm whether competitive advantage mediate the BOS and firm performance fully or partially.

**Sreeja (2018)** Most blue oceans are created by companies in the red ocean expanding industry boundaries. Though the phrase "Blue oceans" is new, the concept is not new (Kim & Mauborgne, 2005). The business environment in which most business strategy and management has been based on is changing, evolving or disappearing. Some of these changes are due to technology and other reasons such as culture, globalization, speed of new information or the role of demographics in the workplace (Perret, 2014). If the company wants to win in the future, they must stop competing. Commercial transportation from Earth to Moon may be a Blue Ocean market space soon.

**Smita Shukla (2012)** Blue Ocean has to ensure through regular value innovations that market of its products continues to stay blue. In words of Kim and Mauborgne "Creating Blue Ocean is not a static achievement but a dynamic process. Once a company

creates a blue ocean and its powerful performance is known, sooner or later imitators appear on horizon". Thus biggest challenge for a company that has been successful in creating Blue Ocean is to ensure that it continues to introduce regular value innovation otherwise there is always a possibility that the company will fail in the market soon. It is on account of the above, that Orkut was challenged by Facebook and Facebook still stands tall while Orkut is now dead.

## **PRINCIPLES OF BLUE OCEAN STRATEGY**

Principles of Blue Ocean Strategy are the six main principles that guide companies through the formulation and execution of their Blue Ocean Strategy in a systematic risk minimizing and opportunity maximizing manner.

**1. Reconstruct market boundaries.** This principle identifies the paths by which managers can systematically create uncontested market space across diverse industry domains, hence attenuating search risk. It teaches companies how to make the competition irrelevant by looking across the six conventional boundaries of competition to open up commercially important blue oceans. The six paths focus on looking across alternative industries, across strategic groups, across buyer groups, across complementary product and service offerings, across the functional-emotional orientation of an industry, and even across time.

**2. Focus on the big picture, not the numbers.** Illustrate how to design a company's strategic planning process to go beyond incremental improvements to create value innovations. It presents an alternative to the existing strategic planning process, which is often criticized as a number-crunching exercise that keeps companies locked into making incremental improvements. This principle tackles planning risk. Using a visualizing approach that drives managers to focus on the big picture rather than to be submerged in numbers and jargon, this principle proposes a four-step planning process whereby you can build a strategy that creates and captures blue ocean opportunities.

**3. Reach beyond existing demand.** To create the greatest market of new demand, managers must challenge the conventional practice of aiming for finer segmentation to better meet existing customer preferences. This practice often results in increasingly small target markets. Instead, this principle shows how to aggregate demand, not by focusing on the differences that separate customers but by building on the powerful commonalities across

noncustomers to maximize the size of the blue ocean being created and new demand being unlocked, hence minimizing scale risk.

**4. Get the strategic sequence right.** This principle ensures companies not only create a leap in value to the mass of buyers but also to build a viable business model to produce and maintain profitable growth. In ensuring that companies build a business model that profits from the blue ocean they have created, it addresses business model risk. This principle articulates the sequence in which managers should create a strategy to ensure that both their company and their customers win as they create new business terrain. Such a strategy follows the sequence of utility, price, cost, and adoption.

The remaining two principles address the execution risks of Blue Ocean Strategy.

**5. Overcome key organizational hurdles.** Tipping point leadership shows managers how to mobilize an organization to overcome the key organizational hurdles that block the implementation of a blue ocean strategy. This principle deals with organizational risk. It lays out how leaders and managers alike can surmount the cognitive, resource, motivational, and political hurdles in spite of limited time and resources in executing blue ocean strategy.

**6. Build execution into strategy.** By integrating execution into strategy making, people are motivated to act on and execute a blue ocean strategy in a sustained way deep in an organization. This principle introduces, what Kim & Mauborgne call, fair process. Because a blue ocean strategy performance represents a departure from the status quo, fair process is required to facilitate both strategy making and execution by mobilizing people for the voluntary cooperation needed to execute blue ocean strategy. It deals with management risk associated with people's attitudes and behaviors.

## SIX PATHS FRAMEWORK OF THE BLUE OCEAN STRATEGY

### Path 1: Look across alternative industries

Organizations compete not only within the industries but also with organizations in other industries which produce alternative product and services to their industry. One of the biggest limitations we put on our organization is to assume that our products/services compete in a defined and unchanging industry with a very narrow view of the environment. The first path in formulating the blue ocean strategy is to find the alternative industries to your industry. In order to understand this path, let us first understand difference between substitute and alternative:

- **Substitutes** are products or services that have different forms but offer the same functionality or core utility.
- **Alternatives** are products or services that have different functions and forms but the same purpose.

Let us explain with an example from entertainment industry. The function of this industry is to provide entertainment and the purpose of this industry is relax, unwind, de-stress, experience and fun. The substitutes to this industry are CDs, TV, stage shows, etc. But the alternatives to this industry include visiting a mall, library, hobby centre, etc., all of which serves the same purpose. Thus by focusing on the key factors that lead buyers to trade across alternative industries and by eliminating or reducing everything else, you can create a blue ocean of new market space.

### **Path 2: Look across strategic groups**

Strategic groups within Industries are group of organizations within an industry that pursue a similar strategy. Strategic groups include a hierarchical order built on two dimensions, price and performance. Thus by looking across strategic groups, an organization has to find why do buyers trade up for the higher group, and why do they trade down for the lower one?

For example, TATA chose not to compete with entry level strategic group of cars in India such as Maruti Omni, Maruti 800, Alto & Hyundai Santro. Instead it questioned the unquestioned notion that cars can't be less than a lakh of Indian Rupees. It looked for factors which, Maruti 800 buyers would trade down or 2 wheeler buyers would trade up!

### **Path 3: Look across Buyer Groups**

In most industries, competitors converge around a common definition of target buyer. However, there are chains of buyers who are directly or indirectly involved in buying decisions, such as:

- Purchasers who pay for the product or service?
- Actual users who use the products?
- Influencers who have a role to play in decisions?
- Intermediate buyers who are traders?
- Regulators who influence the buying decisions?

Thus blue ocean strategy is formulated by finding out who are the chain of buyers in the industry and which buyer group does the industry typically focus on?

For example, Novodisk, a leading producer of insulin created Blue Ocean by focusing on diabetes patients instead of doctors & nurses who are traditionally targeted. Thus they created travel friendly, easy to use, hassle free, easy to set, fancy looking, pen like shots instead of syringes and insulin bottles.

**Path 4: Look across complementary product and service offerings**

An organization has to think about what happens before, during, and after the product/service is used by the consumers. In most industries, competitors converge within the boundary of their industry's product and service offerings. By understanding the context in which the product or service is used and what happens before, during, and after, we can identify constraints of the consumers; eliminate these constraints through a complementary product or service offering.

For example, Philips saw that the biggest issue in brewing tea was not in the kettle itself but in the complementary product of water, which had to be boiled in the kettle. The issue was the lime scale found in tap water. Philips saw this as an opportunity and solved the major constraints of customer that related to water rather than their kettle by adding a mouth filter in the kettle that effectively captured the lime scale as the water was poured.

**Path 5: Look across the functional-emotional orientation of an industry**

**Emotional Appeal** to buyers refers to the emotional utility a buyer receives in the consumption or use of a product or service. Competition tends to converge on one of two possible basis of appeal. 'What are the extras we offer that add to the cost of our product without enhancing functionality? By eliminating or reducing these factors, can we create a simpler, functional, lower-priced, lower-cost offering that would dramatically raise buyers' value'. These are to be questioned in blue ocean strategic formulation.

**Functional Appeal** to buyers refers to the functional utility, buyers receive from a business or product/service based on basic calculations of utility and price. Competition in an industry tends to converge on one of two possible basis of appeal. What emotional elements can we raise or create to infuse our commodity products with new life by adding a dose of emotion?

By understanding your industry focus on functionality or emotional appeal, you can either compete on emotional appeal by stripping functional elements or compete on functionality by adding emotional elements.

**Fast Food producer**, Subway uses emotional appeal to trade up its range of products which usually have more functional appeal rather than emotional. Fast food industry is driven by

price and waiting time which are functional. This industry rarely competes on emotional appeal.

### **Path 6: Look across time**

Many of us respond to trends in our industry at the point they are making an impact. In other words, we create reactive strategies, which allow us to adapt to a changing environment. All industries are subject to external trends that affect their business over time. Instead of adapting incrementally and somewhat passively, one can gain insights into how the trend will change value to customers and impact their organization's business model. To assess trends across time, three criteria are critical: the trend must be decisive to the business, irreversible and have a clear path. By knowing what trends have a high probability of impacting your industry, are irreversible, and evolving in a clear path, we can open up unprecedented customer utility.

When we look across these six paths at the commencement of our strategy formulation we find that this process helps us create new perspectives. Our thinking becomes more creative. When we actually start the process of looking across these six paths we find our assumptions start to break down and simultaneously we awaken to new perspectives about our organization and its industry. From this place that innovations and new opportunities are created. Businesses can create new products, and in turn, generate demand, by making unique products familiar to their customer base and by adding advanced features that make it stand apart.

### **SUCCESSFUL BLUE OCEAN SHIFT**

While studying the principles of a successful transition to the blue ocean, the authors identified three factors that are critical for the shift.

**Mindset:** In an Agile management environment, a blue ocean shift is essentially a change in the mindset. It is about breaking from the traditional business concept and exploring the uncontested areas. Change in mindset requires companies to expand their mental horizon to see where untapped opportunities lie, including asking a different set of questions and contesting the existing process to see what new demands are created.

An example of a successful change in mindset is Salesforce, which upped the customer relationship management game by offering companies a subscription-based CRM service hosted in the cloud. The Salesforce incident epitomises how a company can transition to the blue ocean by changing the thinking abilities. We can avoid competition and create a different market by thinking differently.

**Tool:** Management tools are critical for making a systematic shift to blue ocean strategy. Be mindful, adopting a blue ocean strategy is not a one-off policy change but requires gradual movement to shift to the new domain. When it is done in an orderly manner, it creates a big leap for the company, unlocking growth that is both profitable and rapid.

**Humanistic process:** The theory emphasises that ‘a humanistic process’ is essential for a successful shift to the blue ocean. It needs to inspire people’s confidence to participate and driving the process for successful execution.

#### **Ways to adopt the Blue Ocean Strategy (five-step process)**

- Choose the right place to begin by constructing a Blue Ocean team
- Get on board with the current situation your company is in
- Detect the hidden pain points which are responsible for limiting the current industry size and uncover the untapped customer potential
- Reconstruct market boundaries systematically to develop alternative opportunities
- Select the right move by conducting a rapid market test. Finalise and launch the shift once done.

#### **Advantages and disadvantages of the Blue Ocean Strategy**

##### **Advantages**

- In Blue Ocean Strategy the organizations collaborate with various other organizations to avoid saturated markets and to find new markets. A new value and demand are created for the consumers which increase the growth potential which helps to lay the strong foundation of Value Innovation.
- This strategy is based on proven data rather than unproven theories.
- Fundamental transformations in mentality are enabled in the Blue Ocean Strategy.

##### **Disadvantages**

- A lot of patience, perseverance, preparation, and faith is required while choosing an ocean other than the Blue Ocean Strategy.
- It requires a great deal of clarity about the considerations that are being made. So, tapping into a new market is not easy as an organization must be clear and smart about its customer base, and ways to expand it.
- Initially entering the market is risky as there are chances that customers will not understand the foundation of the product or service due to the lack of fully developed technology.

#### **Benefits of incorporating the Blue Ocean Strategy**

1. The strategy helps companies find uncontested markets while avoiding matured, saturated markets
2. It helps companies overcome the impediment of constant competition and break free from traditional business models to expand their demand and profitability
3. It helps companies increase their value, innovate, and create new value for customers, thus developing their growth potential.

## CONCLUSION

Operating in an uncontested market is a dream for any business. Blue ocean strategy shows that it is possible through innovation and questioning the traditional business process. Blue ocean strategy doesn't propose dividing the market or the globe. It instead suggests the idea of thinking differently. However, it is not so easy. To some, it may sound like a little too ambitious. It requires a complete change in the mindset to see an existing problem in a new light to discover new opportunities. But for companies who dare to venture into the untested water of the blue ocean, lies unbounded growth opportunities. Companies like Apple, Netflix, or Salesforce have already demonstrated the blue ocean strategy particularly well. The Blue Ocean Strategy is indeed path-breaking. It is recognised as a formidable strategic planning tool that helps companies acquire new markets.

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**PERCEPTION AND ATTITUDE OF YOUTH TOWARDS  
ELECTRONIC GADGETS IN CHENNAI CITY – A STUDY WITH  
REFERENCE TO COLLEGE STUDENTS IN CHENNAI CITY**

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The aim of this paper is to create and disseminate knowledge on innovations and its application to solve challenges in Commerce and in management. This paper focuses on bridging the gap between academia and industry for cross fertilization of ideas leading to effective dissemination of innovative solutions in emerging areas. Hence the research papers findings and discussions are based on evidence and that are implementable.

**ABSTRACT**

The uses of electronic gadgets “Youth” Particularly student occupy a major proportion. This occurs because of the e-literacy among them and they easily adopt the changing trends of the world. This paper exclusively focuses on the perception and attitude of students towards electronic gadgets. The perception and attitude of youth (college students) towards electronic gadgets. This study also identified the varied use of e gadgets among users in Chennai City. Data was collected through a well-structured questionnaire using a **convenient sampling method** with a sample size of 120 students in and around Chennai city. Statistical tools used are percentage analysis and factor analysis. In this digital era, this sort of research is very ample aid in guiding not only students the users’ towards proficient use of future gadgets and technology in the present education system.

Keywords: Attitude, Digital Era, Proficient, Electronic Gadgets and Uses of E- Gadgets

**INTRODUCTION**

In the era of digital world internet has transformed the way, people living their lives. The majority of the people use the gadget technology as a tool for communicating, learning and

the medium to find the information. Essentially the usage of technology gadgets actually provides several benefits to students especially in relation to learning. Many past studies that demonstrate the optimistic things of technology gadgets in addition to help the student's self-development process. Now everything can be complete with a snap, which makes our life faster, smarter and smoother.

### **SCOPE OF THE STUDY**

- To know the students attitude towards the use of electronic gadgets.
- To know and understand optimistic and negative attitude of respondents towards use of e-gadgets.
- To know the student expectations from the device (electronic gadgets).

### **OBJECTIVES OF THE STUDY**

- To study the perception and attitude of youth (college students) towards electronic gadgets.
- To analyze the factors which influencing electronic gadgets towards youth (college students).
- To offer suggestions based on the study.

### **REVIEWS OF LITERATURE**

- **J.Priya, S.Subbulakshmi (2022) “Customers’ Preference towards e- Pharmacies in Chennai City”.** This paper aims to identify the factors that influence customers’ buying intention towards e pharmacies for online medical purchases in Chennai city. In this study, Authors have identified and concluded that e- literacy is essential for the emerging e pharmacy Industries to succeed with their services to the public with the consideration of their health aspects.
- **Vaishnavi N, S.Subbulakshmi (2022), “ A Study on factors Influencing the perception of Website Privacy, Trustworthiness and User’s Purchasing Intentions in Chennai City.-** This paper purposes to study the factors that influence consumer purchasing intentions and their perceptions of the trustworthiness of the privacy-related practices of E-commerce websites in Chennai city. This research paper highlighted and concluded that people in today’s world shifted from offline

(traditional) to online for clear cut benefits of convenience and comfort. Hence, creating awareness about E- Literacy (Technology Based Learning – (Access & Application)) among users’ helps them to use sites not only at present but for their better future.

- **NihanPotas&ŞuayNilhan (2021)** titled “Technology addiction of adolescents in the COVID-19 era: Mediating effect of attitude on awareness and behavior” Adolescents have been called the “digital natives of the technology age”, but determining adolescents’ awareness, attitudes and behavior with respect to technology addiction (TA) is important for evolving stable and effective approaches to support their physical and psychological well-being after the COVID-19 pandemic. As a result, the psycho educational involvement programs to be executed for TA should not only effort on awareness, but should also encompass behavioral, cognitive and lifestyle changes
- This study concluded and highlighted that people in today’s world shifted from
- offline to online for clear cut benefit of convenience and comfort. Based upon the
- survey, this study identified that Amazon service is more satisfied in terms of
- products, User’s care, privacy, trustworthiness and delivery service and so on.
- Even though it is an E-commerce company it understood Indians very well and
- made its roots stronger in India. Flipkart is facing a tough competition to Amazon;
- it may take some time to overcome and tries to render its best service in Future
- Indian E-commerce m
  
- **GobindaPuri (2021)** titled” Electronic Gadgets for Young Children: Allow or Restrict” the impact of electronic gadgets on young children in this fast-growing digitalized world and argues for the judicious use of devices for digital learning and adjustment. This indicates that young children shouldn’t be restricted to use gadgets rather should be observed by the young children

- **McCoy, B. R. (2020)** titled "Gen Z and digital interruptions in the classroom". Students' classroom uses of digital devices for non-class related purposes. The aim of this study was to learn more about students' behavior and perceptions regarding their classroom uses of digital devices for non-class related purposes. A significant feature of this study was its measurement of frequency and duration of students' classroom digital distractions as well as respondents' motivations for engaging in the distracting behavior.
  
- **Vahdat, A., Alizadeh, A., Quach, S., & Hamelin, N. (2020)** titled "Would you like to shop via mobile application technology? The technology acceptance model, social factors and purchase intention" This study aims to identify that what would you like to shop via mobile app technology? The Technology Acceptance Model,(TAM) social factors and purchase intention. The findings of this study indicate that perceived usefulness does not have a significant effect on attitude towards mobile app use. Perceived ease of use, social and peer influence, and intention to purchase exhibit positive effects on attitude towards mobile app. This study concluded that the demonstration of model towards mobile app has an effective use in a full mediator on three paths. ( ie., TAM social factors and purchase intention). Finally, moderation analysis showed that only age has a mediating effect on the path from perceived usefulness towards mobile app use.
  
- **SheetalArora(2020)** titled "Perceptions of Mothers towards Children Usage of Electronic Gadgets". The perceptions of mothers towards youngsterspractice of electronic gadgets. The findings exposed most of them recommended screen time for their children. The results also revealed that majority of children cause's health issues and gadget addiction
  
- **J&KDr.Syed Noor ul Amin, Hafsah (Jan2018)** titled"Smart Classroom a New Paradigm for Teaching and Learning: Its Implementation and Setback with Special". The main objective of the study of this leads to the adoption of a variety of smart solutions in educational environments to enhance the quality of life and to improve the performances of both teachers and students. The sample size was

220 and analysis using percentage analysis it was an important move that can turn a new face in the education system of Jammu and Kashmir.

- **Madhu Gupta1 &Kuldeep Singh (2017)** entitled "Effect of Smart Classroom Teaching On Achievement of Students" The study analyses the Main effect of method of teaching, gender and intelligence was found significant on achievement in Social Science among seventh graders and Interaction effect so method of teaching and gender was found insignificant on achievement in Social Science among seventh graders. The sample size is 430 and analysis using t-test, SPSS and ANOVA analysis. The results of the present study have indicated that students who possess a high level of intelligence are better at academic performance than the students who are less intelligent.

#### **LIMITATIONS OF THE STUDY**

- ❖ **Out of 130 samples**, Only 120 samples have been taken for this study. If this study is conducted to maximum persons, it may give accurate overall attitude of the students.
- ❖ It is done among the college students in south Chennai.
- ❖ Time was major constraint for the study.

#### **RESEARCH METHODOLOGY**

**This is a descriptive and analytical study** based on primary data and secondary source. Primary data was collected through a well- structured questionnaire through convenient sampling method distributed with a sample size 120 students in and around Chennai city Secondary Source like websites, books, journals etc., Statistical tools like percentage analysis and factor analysis were used in this paper.

#### **ANALYSIS AND INTERPRETATION**

TABLE: 1 Shows the DEMOGRAPHIC PROFILE of Users of E-Gadgets.

Particular	Dominant Group	Percentage
Gender	Female	58%

Age	20-30	37%
Stream	Commerce	23%
Occupation	Private Employee	33%
Family Income	Less than 25000	28%
Residing	Urban Areas	58%
Educational Qualification	Graduates	41%

Source: Questionnaire

TABLE: 2

The factors which influencing electronic gadgets towards youth (college students).

FACTORS	VARIABLES	FACTOR LOADINGS
<b>FACTOR 1</b> (Attitude)	I feel confident and enjoy using gadgets to learn	0.672
	It is interesting using gadgets for my Personal studies	0.771
	Learning through the use of gadgets is a more flexible method of learning as it can be done anywhere , anytime	0.771
	I am able to access large volume of information on my gadgets	0.538
	The challenge of using gadgets for learning is exciting	0.637
	Gadgets help me to complete my assignments and submit then early	0.778
<b>FACTOR 2</b> (Perception)	Develop language skills	0.603
	Reduce their outdoor play time	0.414
	Family's viewing of screen time as taken over the family time	0.484

	Electronic gadgets create positive influence on children's academic performance	0.505
	Electronic gadgets play an important role in making children adopt to technology trends	0.693
	Electronic gadgets have lots of fun	0.709
	Spending more time with gadgets create health problems	0.503
FACTOR 3 (Influencing of gadgets)	I can research topics easier	0.592
	I am more likely to procrastinate	0.716
	I am able to stimulate my senses and imaginations better	0.780
	My knowledge about new ideas increase because of gadgets	0.483
FACTOR 4 (Addiction)	It create health problems like stress, anxiety etc.,	0.663
	It reduce sleeping time	0.813
FACTOR 5 (learning)	Useful to get information.	0.803

**SOURCE: COMPUTED DATA**

### **SUGGESTIONS**

- Most of them using electronic gadgets with the preference usually for communication, learning and searching information.
- Often/ Frequent use of e-gadgets spoils our health Hence Health aspect to be considered while using e-gadgets

### **CONCLUSION**

This study concluded and identified that the innovative ways and rethinking on the tactics of execution to face the challenge in the arena of education. In the digital era, this sort of research is very ample aid in guiding student towards proficient use of future gadgets and technology in the present education system. Hence, this research paves the way to develop the skills through, latest ICT tools, development and strategies etc.

### **SCOPE FOR FUTURE STUDY**

Future studies may integrate with an enormous representative sample. Scarcity of time led to restrict the study to focus on the users only. Future studies may reflect a control group to have a comparative analysis of the influences of using and not using technology excessively to confirm the findings of the current study. There may be other factors that might have influenced the mental health and social life but not be controlled.

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## THE IMPACT OF CORPORATE GOVERNANCE AND ITS PRACTICES IN INDIAN BANK

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### **Abstract**

Corporate governance plays an important role in maintaining integrity in the organization and to manage the risk of the firm. It is an essential mechanism that directs, oversees, and manages organisational operations. The corporate governance of banks is an essential component for growth and development because banks are among the most significant sources of external governance for businesses in addition to being a major source of capital. Evaluation of the corporate governance processes in the Indian bank is the primary goal of the current study. In addition to highlighting the effect of corporate governance disclosure level on bank performance, the study also reveals the RBI guidelines for corporate governance practise in Indian banks.

**Keywords:** Corporate Governance, principles, Indian bank, RBI guidelines

### **Introduction**

“Corporate Governance is the association of corporate managers, the board of directors, shareholders, individuals, and financial institutions who are saving and spending their money to gain a profit. It ensures that the board of directors is responsible for following corporate goals and that the company itself complies with the laws and regulations.”

– International Chamber of Commerce

The banking industry had a significant decline during the 2008 global financial crisis in the United States, the United Kingdom, Latvia, and several Asian nations, and many banks were nationalised. Many different countries reported bank closures, bankruptcies, and acquisitions. Lack of corporate governance was cited as the primary factor in the fallout. As a result, corporate governance has assumed a central role in the scholarly discussion. Banks are extremely brittle; when one fails, it has an influence on other banks, which then has an impact on the entire financial system and the economy.

Public sector banks dominate the banking system in India, however concerns about governance issues inside these institutions are growing. Due to the fact that nationalised banks in India hold a significant amount of equity in the public sector, the current study was done to assess corporate governance in these institutions. The current analysis aids in understanding the existing state of corporate governance in Indian banks and aids in locating any areas where improvements in governance are needed.

The public sector banks, which include the nationalised banks, control around 80% of the country's entire banking activity. The challenges of corporate governance become more important in the case of these banks because of the connection between their controlling power and the government. One of the main factors that might directly affect the standard of corporate governance is government ownership. There are two main factors that contribute to the significance of corporate governance challenges in public sector banks. They form a significant portion of activity in the Indian banking sector, and it is quite improbable that they will eventually be phased out. As a result, disclosure and openness are important tenets of a corporate governance framework for banks since they give all stakeholders the knowledge they need to assess whether their interests are being protected. Indian banks must maintain excellent corporate governance processes due to the banking industry's fast change.

### **Review of literature**

Kaur and J. Saini (2020) examines corporate governance as an internal control system in banks, its necessity in the banking industry, the history of corporate governance in India and around the world, the best practises of corporate banking established in India, the steps taken by various banks to put these practises into practise, as well as recent advancements in this field in the banking industry. The 2013 Companies Act and significant corporate governance standards supplied by SEBI and RBI are highlighted in the current article. The government has taken a number of measures, including strengthening specific regulations for more disclosures and increasing transparency, as well as giving the Securities and Exchange Board of India (SEBI), which regulates the stock market, additional authority. The provisions of the 2013 Companies Act, as well as the corporate governance guidelines issued by the RBI and SEBI, are crucial in establishing and preserving the corporate governance standards of Indian banks. Kamal Vagrecha and Nayantara Padhi (2018).In Malaysia, during and after the Asian Financial Crisis, Peong Kwee Kim and Devinaga

Rasiah (2010) looked at the relationship between corporate governance and bank performance. The study found a link between sound corporate governance procedures and improved bank performance. For the years 1995 to 2005, eleven banks were examined.

Maria Praptiningsih (2009) discovered parallels between bank and non-bank in terms of corporate governance monitoring systems in her paper *Corporate Governance and Performance of Banking Firms: Evidence from Indonesia, Thailand, Philippines, and Malaysia*. The main contention is that effective corporate governance oversight mechanisms are still crucial for achieving shareholders' aims as well as those of stakeholders and businesses. According to research by Inam (2006), weak corporate governance can cause markets to lose faith in a bank's capacity to responsibly manage its assets, liabilities, and deposits, which might in turn spark a bank run or cause a liquidity crisis. Oluyemi (2005) found that corporate governance was crucial for ensuring economic stability and the effective execution of bank plans. To do this, stringent adherence to guidelines for high-risk loan lending should be appropriately safeguarded.

### **CORPORATE GOVERNANCE - INDIAN PERSPECTIVE SCENARIO**

Due to the massive amount of fraud that has occurred in India since the introduction of the liberalisation concept in 1991, including the Harshad Mehta scandal, the Ketan Parekh scandal, the UTI scandal, the Vanishing company scandal, and the Bhansali scandal, among others, the need for corporate governance is growing. These disorderly controversies have damaged the Indian economy's reputation as well as the confidence of inexperienced investors. In India, creating regulations for good governance is not the main problem; rather, it is carefully examining and correctly implementing those regulations with buy-in from all stakeholders.

The very effective and active capital market in India today is the key to enhancing governance. The British-American paradigm of entirely separating management and ownership is followed by Indian business structures unless proper steps are taken to promote openness, accountability, integrity, and guilt. The prospect of continuous metamorphosis is also present. In the majority of Asian nations, the business sector is characterised by centralised ownership and extensive family or state control. The end consequence is a corporate control pyramid that boosts the profits of other family-owned enterprises at the expense of minority shareholders. The Indian CG system is based on the Companies Act of

1956. The laws and regulations governing the financial market have undergone notable changes since deregulation. A substantial change was made to SEBI in 1992. It has been crucial in creating fundamentally low standards of adherence for registered organisations' CG. The dispute between management and owners needs to be resolved since, unlike in the United States and Great Britain, it safeguards the interests of both majority and minority shareholders in India.

### **Corporate Governance Goals**

A number of cutting-edge and transparent practises that assist stakeholders, directors, and company management were announced by the 2013 Companies Act. By providing shareholders with an overview of these recently implemented procedures and regulations, investment advice services and agents can enhance CG.

- The necessity for good corporate governance has increased as a result of the competition between industries from all financial sectors on a worldwide scale. Corporate governance responsibility is essential to business development, competitiveness, and consistency.
- The board, made up of the board of trustees, shall be responsible for the operations. Consulting firms offer business advice services to successfully manage corporate activities, assure market continuity and development, and retain client and consumer image and confidence.
- It commits to firm and effective use of management methods, as well as adherence with the legal aspects to the ever-evolving business landscape in India.
- It will conduct the business of the company successfully in the objectives of the company and minority shareholders.

The corporate governance list was based on Article 49 prior to the 2013 Company Act. In order to boost the transparency of transactions by listed businesses and provide the few stakeholders who have a say in corporate choices greater clout, SEBI has authorised some revisions. These improvements take effect on October 1, 2014.

### Essential features of Corporate Governance

- It involves running a business in a transparent and effective manner. This is a reference to the transparent, ethical, and orderly operation of the business organisational system.
- It serves as a behaviour code.
- It is a set of regulations, guidelines, and practises that offer administration of an organisation for the advantage of all stakeholders, and the board of directors must abide by them when conducting business for the company.

### Need for Corporate Governance

The following features explain the necessity of corporate governance:

**Diverse shareholder distribution:** In the present era, a corporation has a large number of shareholders spread out across the nation and the world. Additionally, the bulk of shareholders lack organisation and show little interest in company matters. Corporate governance is the only mechanism available for organising all of these different sorts of shareholders.

**Protection of shareholder democracy** is feasible through the Corporate Governance Code of Conduct since the concept of shareholder democracy is not just restricted to laws and legislation.

**Transformation of investments:** Investment trends have altered significantly, and institutional investors—both foreign and domestic, as well as mutual funds—now make up the majority of the stockholders in the largest private enterprises.

**Corporate Frauds or Scandals:** Among the major scandals, the Ketan Parekh scandal, Satyam computer services scandal, etc., are well-known to everyone and are linked to business or educated interests as well as a social conscience.

**High expectations from society:** In terms of fair costs, improved efficiency, noise regulation, better capital allocation, etc., today's society has high expectations from the private sector.

In order to operate the corporation economically and socially, a corporate governance code is necessary to satisfy societal requirements.

**Hostile Acquisitions:** The efficiency of managing acquisition has been called into question by hostile corporate acquisitions that have been seen in a number of nations.

An acceptable corporate governance code of ethics is driven by that element. **A considerable increase in rewards:** Senior managers' cash compensation packages increased significantly in both developing and industrialised nations. Senior executives received excessive rewards from investment funds owned by the company's owners and owners without any justification. To prevent top management fraud, corporate governance is necessary.

**Globalization:** The desire of more and more Indian businesses to list on international stock markets emphasises the significance of corporate governance implementation.

### **Corporate Governance Principles**

The major corporate governance concepts are set out below:

**Accountability:** Understanding the truth is made simpler by some things' greatness. stakeholders to business.

Businesses must disclose pertinent information about themselves in major publications, such as annual financial reports, in order to ensure the transparency of corporate administration.

**Answerability:** It is the responsibility to explain the effects of one's actions and how they will benefit other people. According to the concept of corporate governance, it is the duty of the President, the Board of Directors, and the General Manager to use the company's resources in the organization's best interests.

**Company and its owners Independence:** Noble corporate governance allows company management to be neutral, that is, the board of directors should be a strong non-partiality member; so that it can take its strategic decisions on the basis of business judgment.

### **CORPORATE GOVERNANCE IN INDIAN BANKING SECTOR**

In the upcoming years, corporate governance in banks and financial institutions will become more important, and this will be reflected in the composition of the boards of directors of banks.

In order for corporate governance to evolve, banks must eventually abide with international standards.

Corporate governance is not a prescriptive formula or procedure. As worldwide contrasts show, to attain this by adopting three simple philosophies:

- The administration would be responsible for employing that right effectively and efficiently. Management must permit pushing the organisation forward with little intrusion and full opportunities.
- There are two levels of answers. governing partnership between owners and management.
- The major problem is to provide proper management since without enough and powerful push, every organisation will fail. Company governance offers the framework for setting corporate objectives as well as the means for achieving them and monitoring progress.
- Corporate governance would also enable for effective control to encourage enterprises to use capital more effectively, as well as provide the Board and top executives with the necessary opportunity to accomplish goals that are in the best interests of the company and shareholders.
- By adhering to the principles and rules that were developed a few decades ago, CG is now viewed as a role model for boosting productivity and competitiveness, which improves investor confidence and access to capital both domestically and internationally.

The manner in which a bank's board of directors and administration run its operations and affairs. It covers such things as how to determine a bank's risk appetite and tolerance, manage day-to-day operations, protect depositor interests, uphold shareholder commitments, and consider the advantages of other individuals connected to the institution. supporting client behaviour with the knowledge that the bank can operate effectively, soundly, fairly, and in compliance with applicable laws.

The RBI plays a critical role in establishing and sustaining corporate governance principles in India's banking sector. Aspiring shareholders' value is safeguarded and maximised, merchants' risk is supported, and the financial system is strengthened to safeguard the broader interests of the public. Large amounts of unconstrained public cash are given to banks in a reliable manner, and they can profit from these monies by creating credit. They are in charge of the subdued activities.

Licenses, branch expansion, claim escalation, administration and operational procedures, mergers, acquisitions, and liquidations are all subject to the supervision and control of scheduled commercial banks and cooperative banks by the RBI. Therefore,

cooperative banks' corporate governance depends not only on the financial interests of its members but also on providing suitable and expensive services. This analysis's goal is to investigate how corporate governance affects the operational and financial decisions made by civic cooperative banks. Corporate governance is nothing more than the widely accepted principles of cooperation. Members have an equal part in the cooperative capital and are democratically controlled, according to the International Cooperative Alliance (ICA), which describes this relationship as a "Member Economic Partnership."

### **RBI guidelines on corporate governance**

RBI Supervision Bank NBFC and other financial institutions from time to time Term issues. Some of the key guidelines are discussed below

**a) Guidance for payment banks:** According to its payment bank licencing standards, the RBI emphasises that bank boards should consist mostly of individual directors and that banks should also be authorised by the RBI, SEBI, and other regulatory bodies.

compliance with the published corporate governance principles.

**b) Guidelines for NBFCs:** The RBI gave NBFCs instructions to create internal corporate governance norms that were approved by its board.

With the advent of the NFCA, these boards must have three committees: the audit, nomination, and risk management committees.

**c) Appropriate standards for directors:** A board-approved policy on "suitable standards for directors" is required for NBFCs. As a result, the director periodically provides the company with the necessary advertising. Companies must make sure to provide the RBI with a certificate of a director change as well as a certification attesting to the proper and appropriate selection criteria for directors.

### **Conclusion**

Effective Corporate governance is a strategy that adopts commonly used business techniques while maximising member proximity and adhering to an organization's core principles and objectives. In order to improve the nation's economic structure, corporate governance must be introduced. The Bank's overall financial structure will be impacted by its administrative problems. Numerous economic problems could arise as a result of the bank's collapse. Not only are the current market conditions difficult for commercial banks,

but also for cooperative banks. Thus, effective bank governance takes such criticism into account in order to preserve depositor confidence in the banking industry.

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## **THE PROGRESS AND GROWTH OF ONSITE-OFFSITE ATMS: A COMPARATIVE STUDY OF PUBLIC SECTOR, PRIVATE SECTOR AND FOREIGN BANKS IN INDIA.**

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### **Abstract**

The tendency of banking sector has evolved from cash economy and transformed to cheque economy which has further been converted to plastic card economy. With these concern there are several branches of onsite and offsite ATMs are developed in India. Therefore now the technology is considered as the main contribution for the organizations success and as their core competencies. So, the banks are investing more on providing on the customers with the new technologies through e-banking. The main aim of study is to highlight the theoretical framework and different kinds of ATMs services in Indian banking sector and to growth of Onsite and Offsite ATMs of public and private sector banks and also to analyze the growth of onsite and offsite ATMs in foreign banks. Finally this study analyzed comparison of growth in onsite and onsite ATMs among public, private and foreign banks in India. The present study focused on secondary sources of data collection and to measure the reliability of data applied the compounded growth rate and post doc test to analysis the comparison of onsite and offsite in public sector, private sector and foreign banks. To be concluding ATM is a machine which facilitates easily banking transactions to the customer, therefore technological advancement is need to improve the growth and accessibility of onsite-offsite ATMs services in India. These study mainly find out the public sector banks having highest number of onsite and offsite ATMs services compared to private sector banks and foreign banks.

**Keywords:** Onsite &offsite ATMs, Public sector banks, Private sector banks, foreign banks.

## INTRODUCTION

In the present state of affairs banking industry plays predominant role to the developments in information technology had an enormous effect in development of more flexible payment methods and more user-friendly banking services. Online banking and other electronic payment systems are new and the development and diffusion of these technologies by financial institutions is expected to result in a more efficient banking system. This technology offers to the institutions an alternative or non-traditional delivery channels through which banking products and services can be delivered to customers more conveniently and economically without diminishing the existing service levels. However the entry of private sector has posed the challenge of competitive environment to the public sector banks in India.

These study focused on public, private and foreign sector banks have brought with them the advanced banking technology with alternate delivery channels such as Phone Banking, Mobile banking, Internet Banking, Automated Teller Machines (ATM) etc. Out of all these e-banking services, the ever demanding and fulfilling the requirement of the customers is automated teller machines. So the efforts of the banks are to manufacture and install as much ATM's which could serve its services to the entire customers of the nation, an additional security device innovations are being made in the form of using camera inside the ATM which could compare the records with thumb impression (Bio-Metric) of the customer identification for the purposes of safety in the areas of onsite and offsite ATMs.

The ATM industry consists of multitude of activities which is a major cause of making e-banking a 24 hours service. In fact, electronic banking is profitable and possible due to services of ATMs. Because this service provides immense help to the customers in withdrawing cash from anywhere, anytime. The management of ATM includes loading of ATM with cash, arranging of money with bank with which cash is loaded, service of car that delivers cash if it is offsite situated, providing insurance for all areas such as theft of cash from ATM. Due to large expense involved in setting and situating an ATM at a particular place, these services are now days offered by independent service providers like privately owned ATMs. The following is a list of businesses involved with ATMs services.

### **Kinds of ATM Services:**

The first ATM to be installed in India was by HSBC in 1987 at Mumbai. There are different kinds of ATMs used by the banks for the customers as follows:

- a) **Onsite and Offsite ATMs:** ATMs which are situated at the premises of the bank are known as onsite ATMs and the one that are located at some busy places are known as offsite ATMs like food worlds, railway station, bus stops, shopping malls, petrol pumps etc.
- b) **Stand alone and Net-worked:** ATMs which are not linked to the hub of the bank to which it belongs are stand alone ATMs. But these ATMs are not popular now a days. Net-worked ATM on the other hand are those which are linked to the branch and also linked to the branches across the country means a customer of a particular bank can withdraw money from any branch and any bank and any city.
- c) **Dip-card and Motorized:** Where the customer is required to dip the card and take it back to do the transaction is known as dip card. The sensor of the machine identifies the customer and greets him with the voice. On the other hand, motorized ATMs are very prevalent among all. In this the customer inserts the card in the machine and takes it back when the transaction is over. In some machines immediately the card is taken back whereas in some machines the card automatically comes out when cash is withdrawn.
- d) **Front and Back:** Cash has to be regularly loaded in the ATM machines. In the front loading the door of the ATM compartment is closed and cash is loaded where as in back loading, it is done behind the ATM and a message is displayed that “please wait for some time. Some services are being carried on”.

Therefore with this context, now days due to the high cost involved in installing the ATM machines, these services are provided by privately owned institutions. By sponsoring a privately owned ATM, financial institution takes the full responsibility of non-bank location ATM. These financial institutions bears all the risks associated with installation of ATM, placing the machine and including risks of frauds. So all the privately owned ATM must have a sponsoring institution that carries such risk related to fraud, theft and cash mismanagement.

### **Review of Literature**

. The lot of research has been conducted on India and abroad studies related to growth of onsite and offsite ATMs in banking sector.

**Pijush Chattopadhyay (2017)**, this study was focused on customer preference towards use of ATM services in pune city. This article depicts on ATM impacts the customer services and leads to better customer satisfaction. And to analyze the relationship between demographic variable and preference to use ATM, structured questionnaires used

to collect the data from a convenience sample of 300 customers from three sample cooperative banks in Pune city. Frequency and percentage analysis and chi square tests are applied for data analysis and interpretation and also, charts and tables are prepared for better understanding of the findings in the banks of pune city.

**Prachi Mittal (2018)**, this study was undertaken on computerization in banks- some issues. This paper shows how banks have now flourished into one-stop Supermarkets. Their focus is flowing from bulk banking to class banking with introduction of value added and customized products. Technology helps banks to create what appearances like a branch in a business building's lobby without taking to hire manpower for manual operations. These branches are 24 x 7 working which has been made possible due to ATMs, Tele banking, Internet Banking, E-banking and Mobile Banking. Finally this study concludes banking Innovation with special reference to technological up gradation. In the paper survey on use of several E-channels and issues related to customer satisfaction of e- banking services.

**Rajeev Kumar (2019)**, this study was focused on technology-based banking services prevailing In Indian banking Industry - An overview and recent trends. This paper explains the electronic and telecommunication networks for delivering a wide range of value added products and services. The delivery channels include direct dial – up connections, private networks, public networks etc and the devices include telephone, Personal Computers including the Automated Teller Machines, etc. With the popularity of PCs, easy access to Internet and World Wide Web, Internet is increasingly used by banks as a channel for receiving instructions and delivering their products and services to their customers. This paper tries to explain the various technology based banking services (TBBS) prevailing in Indian Banking Industry and gives recent trends in growth and usage of such services in India

**Meena R (2020)**, this study was conducted on automated teller machine – its benefits and challenges. This paper revealed on major benefits and challenge us of ATMs services in Indian banking industry. Thses study mainly makes out, drawback of traditional banking services customers if it cannot be accessed easily instead of waiting for the bank to open or only for banking hours to do the work. Many customers are choosing banks which would provide them Automated Teller Machine facility. The ATM is a machine which facilitates banking transactions and makes the customers life peaceful and easy to withdraw and deposit of cash to the banks

**M. Erol Genevois (2021)**, this study was emphasized on ATM location problem and cash management in automated teller machines. This paper provides a general review on studies, efforts and development in ATMs location and cash management problem. This forecasting model is based on historical cash demand data which is highly related to the ATMs location. So, the location and the cash management problem should be considered together ATMs are not only available in bank branches but also at retail locations. Another important factor is the cash management in ATMs. A cash demand model for every ATM is needed in order to have an efficient cash management system.

**Ajay Thakare (2022)**, this study was conducted on technological innovations in banking sector. These article interpret on various innovations in banking and financial sector are ECS, RTGS, EFT, NEFT, ATM, Retail banking, Debit and Credit cards, free advisory services, online banking, mobile banking and many more value added products and services. This paper also highlights the benefits and challenges of changing banking trends. Banks are investing heavily in adoption of these innovations. The need of hour is to design such a system that encourages the efficiency of investment in innovations and widens the gap between revenues and costs involved with reference to technological up gradation.

#### **OBJECTIVES OF THE STUDY:**

**The major objectives of the study are as follows:**

1. To highlight the theoretical framework and different kinds of ATMs services in Indian banking sector;
2. To highlight the growth of Onsite and Offsite ATMs of public sector banks;
3. To assess the growth of onsite and offsite ATMs of private sector banks;
4. To analyze the growth of onsite and offsite ATMs in Foreign Banks.
5. To study the comparison of growth in onsite and onsite ATMs among public, private and foreign banks.
6. To offer findings/suggestions for the light of the study.

#### **RESEARCH METHODOLOGY:**

Research is considered as journey from unidentified to the identified phases. Methodology is the way to solve the research problem systematically. The present study is purely based on data gathered from secondary sources. The sources of secondary data were from various annual publications, bulletins, trends and progress reports and speeches of Reserve Bank of India (RBI), Indian Banking Association (IBA) Bulletins published by Indian Banks Association and Center for Monitoring and Indian Economy (CMIE). In

addition to these books, articles published in journals, thesis submitted to the universities and working papers of various institutions also considered. Internet and other sources also been used. For the purposes of analyses of data used CAGR method and descriptive statistics. To measure the comparative study among the public, private and foreign banks, have applied post doc test to interpret the results of data.

### Analysis and Interpretation

#### 1. Growth of Onsite & Offsite ATM – Public Sector banks:

Table No. 1 shows that growth of onsite and offsite ATMs in public sector banks. Public sector banks constitute the major role in providing electronic banking services. The overall growth of onsite ATMs, numbering 3, 33,308 branches, out of that the highest number of onsite ATMs numbering, 67,820 branches in 2021-22, as against the lowest number of onsite ATMs numbering 12902 branches in 2012-13 respectively. The growth of onsite ATMs in public sector banks have recorded 38.05 per cent growth in 2013-14, and it was declined to 14.32 per cent in 2021-22. In the context of overall growth of offsite ATMs, numbering, 2, 47,814 branches, out of that the highest number of offsite ATMs numbering, 55,621 branches in 2021-22, as against the lowest number of offsite ATMs numbering 8,885 in 2012-13 respectively. The growth of offsite ATMs in public sector banks has recorded 30.13 per cent growth in 2013-14, and it was declined to 12.36 per cent in 2021-22. These shows public sector banks are having largest share of onsite ATMs compared to the offsite ATMs in India.

**Table No. 1**  
**Growth of Onsite & Offsite ATM – Public Sector banks**

Sl.No	Year	Onsite ATM	Growth	Offsite ATM	Growth
1.	2012-13	12902	-	8885	-
2.	2013-14	17379	38.05	9898	30.13
3.	2014-15	23797	34.59	16883	32.66
4.	2015-16	29795	31.04	19692	30.94
5.	2016-17	28150	29.19	19239	23.20
6.	2017-18	31685	27.91	23153	29.16
7.	2018-19	25596	20.23	16089	21.21

8.	2019-20	31428	18.00	23034	29.22
9.	2020-21	64756	17.46	54920	16.13
10.	2021-22	67820	14.32	55621	12.36
	<b>Total</b>	<b>333308</b>	<b>-</b>	<b>247814</b>	<b>-</b>

Source: Trends and Progress Report of RBI – Various issues.

## 2. Growth of Onsite & Offsite ATM – Private Sector banks:

Table No. 2 represents that growth of onsite and offsite ATMs in private sector banks. Private sector banks play a vital role in providing electronic banking services. The overall growth of onsite ATMs, numbering 1,62,680 branches, out of that the highest number of onsite ATMs numbering, 31,319 branches in 2021-22, as against the lowest number of onsite ATMs numbering 3,879 branches in 2012-13 respectively. The growth of onsite ATMs in private sector banks have recorded 28.98 per cent growth in 2013-14, and it was increased up to 39.56 per cent in 2021-22. In the context of overall growth of offsite ATMs, numbering, 2, 00,238 branches, out of that the highest number of offsite ATMs numbering, 38,825 branches in 2021-22, as against the lowest number of offsite ATMs numbering 5,988 in 2012-13 respectively. The growth of offsite ATMs in private sector banks has recorded 26.85 per cent growth in 2013-14, and it was increased to 40.12 per cent in 2021-22. These shows private sector banks are having largest share of offsite ATMs compared to the onsite ATMs in India.

**Table No. 2**  
**Growth of Onsite & Offsite ATM – Private Sector banks**

Sl.No	Year	Onsite ATM	Growth	Offsite ATM	Growth
1.	2012-13	3879	-	5988	
2.	2013-14	5,166	28.98	7,480	26.85
3.	2014-15	8,603	33.18	9,844	28.92
4.	2015-16	8,007	32.53	11,518	31.60
5.	2016-17	15539	20.93	20762	37.00
6.	2017-18	15309	17.42	28413	33.17
7.	2018-19	22297	13.46	24740	32.61
8.	2019-20	26136	11.83	14254	26.54

9.	2020-21	28709	10.87	38414	39.86
10.	2021-22	31319	39.56	38825	40.12
	<b>Total</b>	<b>162680</b>	<b>-</b>	<b>200238</b>	

Source: Trends and Progress Report of RBI – Various issues.

### 3. Growth of Onsite & Offsite ATM – Foreign banks:

Table No.3 indicates that growth of onsite and offsite ATMs in foreign banks. Foreign sector banks play a prime role in providing electronic banking services. The overall growth of onsite ATMs, numbering 21,135 branches, out of that the highest number of onsite ATMs numbering, 4,328 branches in 2020-21, as against the lowest number of onsite ATMs numbering 269 branches in 2012-13 respectively. The growth of onsite ATMs in foreign banks have recorded 8.03 per cent growth in 2013-14, and it was decreased to 4.26 per cent in 2021-22. In the context of overall growth of offsite ATMs, numbering, 16,925 branches, out of that the highest number of offsite ATMs numbering, 3,012 branches in 2019-20, as against the lowest number of offsite ATMs numbering 765 in 2012-13 respectively. The growth of offsite ATMs in foreign banks has recorded 7.59 per cent growth in 2013-14, and it was decreased negatively i.e., -1.73 per cent in 2021-22. These shows foreign banks are having largest share of onsite ATMs compared to the offsite ATMs in India.

**Table No. 3**

#### **Growth of Onsite & Offsite ATM – Foreign banks**

Sl.No	Year	Onsite ATM	Growth	Offsite ATM	Growth
1.	2012-13	269	-	765	-
2.	2013-14	270	8.03	784	7.59
3.	2014-15	779	6.37	747	2.48
4.	2015-16	1286	4.33	1,081	-4.72
5.	2016-17	1736	5.51	1679	44.71
6.	2017-18	2250	3.21	2232	-4.38
7.	2018-19	3446	-1.10	2725	-2.35
8.	2019-20	3686	-1.76	3012	-3.32

9.	2020-21	4328	-3.33	1751	2.07
10.	2021-22	3085	4.26	2149	-1.73
	<b>Total</b>	<b>21135</b>	<b>-</b>	<b>16925</b>	<b>-</b>

Source: Trends and Progress Report of RBI – Various issues

#### 4. Comparison of Onsite and onsite ATMs among public, private and foreign banks:

Table No.4 depicts that comparison of onsite and offsite ATMs among public sector, private sector and foreign banks in India. In the context of public sector banks, the overall growth of onsite and offsite ATMs are, numbering 3,33,308 branches and 2,47,814 branches respectively. In the context of private sector banks, the overall growth of onsite and offsite ATMs are , numbering,1,62,680 branches and 2,00238 branches respectively. In the context of foreign banks, the overall growth of onsite and offsite ATMs are, numbering 21,135 branches and 16,925 branches respectively. Thses analysis shows that public sector banks having highest number of onsite and off site ATMs services compared to private sector banks and foreign banks.

**Table No. 4**

#### **Comparison of Onsite and onsite ATMs among public, private and foreign banks**

Sl.No	Banks	Growth of ATMs	
		On-site ATMs	Off-Site ATMs
1.	<b>Public Sector Banks</b>	333308	247814
2.	<b>Private Sector Banks</b>	162680	200238
3.	<b>Foreign Banks</b>	21135	16925

Source: Trends and Progress Report of RBI – Various issues.

#### **Post Hoc Test:**

A comparison of onsite and offsite ATMs among public sector, private sector and foreign banks in India, the post hoc test Table No. 4 (a) revealed that in case of first means, there is no significant difference between the variables of public sector banks to private sector banks and there is a significant differences between public sector banks to foreign banks. In view of second means, there is no significant difference between the private sector banks to public sector banks and private sector banks to foreign banks. In case of third

means, there is a significant difference between foreign bank to public sector bank and foreign bank to private sector bank.

**Table No.4 (a)**  
**Post Hoc test (Turkey approach)**

Sl.No	Dependent Variable	(I) Banks type	(J) Banks	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
							Lower Bound	Upper Bound
1.	I Means	Public	Private	8.4895	0.61168	.361	-6.6765	2.3655
			Foreign	2.7385*	0.62529	.000	1.1881	4.2883
2.	II Means	Private	Public	-4.84897*	0.61168	.110	-2.3655	6.6765
			Foreign	-1.8801	0.61068	.013	4.1524	3.3638
3.	III Means	Foreign	Public	-2.7385*	0.61168	.000	4.2888	-1.1881
			Private	1.8514	0.59468	.000	-3.3638	-4.152

\*. The mean difference is significant at the 0.05 level.

## FINDING OF THE STUDY

### The following are the major findings of the study:

- In the context of public sector banks, the overall growth of onsite and offsite ATMs are, numbering 3, 33,308 branches and 2,47,814 branches respectively.
- The growth of onsite ATMs in public sector banks has recorded 38.05 per cent growth in 2013-14, and it was declined to 14.32 per cent in 2021-22.
- The growth of offsite ATMs in public sector banks has recorded 30.13 per cent growth in 2013-14, and it was declined to 12.36 per cent in 2021-22.

- In the context of private sector banks, the overall growth of onsite and offsite ATMs are , numbering, 1,62,680 branches and 2,00,238 branches respectively.,
- .The growth of onsite ATMs in private sector banks has recorded 28.98 per cent growth in 2013-14, and it was increased up to 39.56 per cent in 2021-22.
- The growth of offsite ATMs in private sector banks has recorded 26.85 per cent growth in 2013-14, and it was increased to 40.12 per cent in 2021-22.
- In the context of foreign banks, the overall growth of onsite and offsite ATMs are, numbering 21,135 branches and 16,925 branches respectively.
- The growth of onsite ATMs in foreign banks have recorded 8.03 per cent growth in 2013-14, and it was decreased to 4.26 per cent in 2021-22..
- The growth of offsite ATMs in foreign banks has recorded 7.59 per cent growth in 2013-14, and it was decreased negatively i.e., -1.73 per cent in 2021-22.

#### **SUGGESTIONS FOR THE STUDY:**

**The following are the suggestion for the study:**

- ❖ ATM services play a vital role in the banking activities. The various suggestions for improving the effectiveness of the ATM services in public and private sector banks.
- ❖ Banks must make concentrated efforts to educate female customers to use ATMs. For this purpose banks must hold training programmes for customers from time to time.
- ❖ Banks may also draw up special incentive schemes to induce customers to make maximum use of ATMs.
- ❖ Number of banks own ATMs must be increased. As the number of ATMs is less customers are forced to use off-site ATMs which form part of shared network and have to pay higher charges after the 5th transaction in a month.
- ❖ ATMs must be maintained properly by banks. Banks must ensure that uptime is near 100 %. Air conditioners, UPS systems, key boards, Monitors etc. must always be in proper working condition in india.
- ❖ Cash refilling at proper intervals must be made to ensure that cash does not get over in the cash stacks. This care should be taken over weekends and during holidays.
- ❖ Problems of technical nature resulting in debiting of customer account without dispensing of cash should be rectified urgently. Care must be taken to ensure that such problems do not occur at all.

- ❖ Paper for receipt printing must always be available in the ATM centre and efforts should be made to refill the paper roll in time to avoid inconvenience to customers. Banks should ensure that the printing on the paper receipt is clear and of good quality.
- ❖ The system of transacting through ATM must be speedy, accurate and reliable. Banks must ensure that the technology adopted by them is the latest and most efficient.

### CONCLUSION:

The wind of liberalization, globalization, and privatization has opened new vistas in the banking industry in the generation of an intensely competitive environment. Today, ATMs have been popularized across the globe. The Automated Teller Machine has by now become part of daily life. Banking through ATM has not only transformed traditional banking but has also brought a paradigm shift in the attitude of banks to banking operations. The banking sector in India has introduced E- banking in a phased manner. Foreign banks are the pioneers in e-banking, private banks introduced it in a big way and public sector banks are in the process of transformation from traditional banking to E-banking. The present analysis indicates that The banking industry should take steps to make its ATMs safe and secure for its customers with these public sector banks having highest number of onsite and offsite ATMs services compared to private sector banks and foreign banks so private sector banks and foreign banks they develop some strategy to improve the number of onsite and offsite ATMs braches services in India.

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## ROLE OF TALENT MANAGEMENT PROCESS AND STRATEGIES IN ORGANISATIONS

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### **ABSTRACT**

The future of every organization depends upon the Talent Management. The different capabilities, skills and technical knowhow of human resources differ from employee to employee, accordingly it is the organizations ability to identify and train them to meet their goals. Particularly employees must be trained for situation handling. The organization motivate their employees monetarily and other benefits to achieve their common objectives.

The study focuses on talent management strategies and employee's acceptance towards training, motivation and achievements, individual and common goal recognition.

**KEY WORDS:** Talent Management , Strategies

### **INTRODUCTION**

Talent management is attracting employee's knowledge and skills to meet the needs of any organization. The process of identifying and sourcing the talents and filling the vacancies .The need for skills to attain the objectives of an organization is fulfilled through talent management. Right people for the right job are accomplished by Talent Management. Analyzing the talent for present and future, optimizing the existing skills are the important.

Talented People are those who regularly exhibit their abilities of activities, have high competence and deal with complex situations. Organizations need Talent Development to effectively compete in a rival environment to accomplish sustainability. If an organization need to work with high-performing employees it should build a healthy work environment and help talented people grow.

### **STEPS TO MANAGE TALENT**

- 1. Planning:** Planning is the first step in Identifying, attracting and sourcing the human talents for the organization.

2. **Pooling:** Pooling the right candidates by different sources like job fairs , social networks and references within the organization or from external environment.
3. **Scrutinizing:** Evaluating and selecting the best out of good potentials to fit in the organization jobs through various selection process of screening tests , interview , written test and so on.
4. **Training:** Selected employees should be trained well by expertise to accomplish the objectives of the organization. Developing the skills and knowledge of the recruited personnel through sound resources will enhance the organization.
5. **Performance appraisals:** To know how the talents works there is a need for performance appraisal. It leads to check where the organization stands and how to develop. Human talents are evaluated through performance appraisals and healthy competition between the peers makes the organization better. Rewards to achievers will uphold the enthusiasm of the employees.
6. **Retention:** Retaining the human talents is the challenging task. As human knowledge and skills are different their needs are also versatile and organization must strive hard to meet the expectations of the talents by providing them proper salaries , perquisites , incentives, perquisites and more benefits to build a strong business culture between employees and the organization.

## **STRATEGIES OF TALENT MANAGEMENT**

Planning, organizing and facilitating various talent management activities such as orientation sessions for new employees, corporate learning and training sessions, learning forums etc. Organize and support learning needs analysis exercises by administering surveys, organizing focus groups, or brainstorming sessions can develop an healthy organization.

- **Job description**
- **Duties to be performed**
- **Required skills**
- **Equipment and tools**
- **Salary and wages**

**Detailed job descriptions**

A detailed job description helps the candidate understand the job – role better. Irrelevant information about the job can be avoided. Well informed job information induces the employee to perform better and to know the organization goal.

**Organization culture**

Employee must fit into the organizational culture. A happy employee is a productive employee. Organizational culture and values must be easy and working environment should be comfortable so that employees of high positive attitude can be found by the organization source.

An important strategy to make talent management more effective involves creating a culture of coaching, mentoring (even reverse mentoring) and collaboration. Constructive feedback goes a long way when it comes to helping employees evolve and develop their skills and expertise. Managing talent is thus also about preparing them for the future of the organization – to be ready for changes down the path and to be able to rely on each other.

**Reward and recognition**

The process of rewards and recognition is an important part of the strategy to motivate and manage employees better. Beyond financial rewards and bonus packages, a great opportunity for organizations to exhibit their employees how much they care for them as persons and as integral aspects of the organization.

**Opportunities for continuous improvement**

Managing talent needs to be put in the context of the future. Thus, employees need to be skilled with the right equipment and tools to be able to maximize their own potential. For the continuous improvement of the organization, scope and opportunities for the continuous development of its employees. Moreover, this ensures that the cumulative skills within the organization are updated and upgraded.

The following are considered as the five pillars of talent management

- **Role-Based abilities:**

To articulate the skills and knowledge, competencies and experiences that an employee should possess in order to be successful in a specific role in the organization.

- **Career goals :**

Creating the opportunity and then making sure that people see it and know what it takes to reach the goals.

- **Development:**

The idea is that personal development should happen on the job through learning such as assignments and job rotations.

- **Recruiting :**

Recruiting is refreshing a job description. HR department to identify talent pools that reflect the desired competencies and focus their organizational goals. In the job interview, ensure to emphasize the variety of career goals and development opportunities. The onboarding program is important and should be consistent across the planning organization. New recruits should understand how their job relates to planning strategy and objectives. Eventually , they will have the opportunity to participate in an organizational program with other functional peers.

- **Performance Management:**

Performance management is the process by which organizations' HR departments measure and reward an individual's contribution to the business over time zones. The employees current performance and their future aspirations and understanding the values and relationship management are measured by HR departments.

### **Talent Management is Important**

Talent management is worth . Here are five reasons why it is important for every organization.

### **Attract Best Talents**

Best talent refers to employees who have the high productivity and performance, as well as having the company's ideal traits. One aspect of talent management is the recruitment of

the best employees. The selection process for candidates has a specific set of standards. The applicants will be evaluated seriously to achieve productivity.

### **Increases Productivity**

Talent management also gives a high productivity in the workplace. The initiatives in talent management ensure that to hire hardworking employees who are well equipped to do their job. At the same time, developing the existing employees so that they'll be more efficient, creative, as well as motivated in their work. This serves as an best way for productivity in the company.

### **Retain Talented Employees**

Talent management does involve retaining the best employees. Talent management enables companies to figure out ways to retain their best employees so that their contribution towards organizational goals will be rewarded with career growth and salary hikes.

### **Keeps Employees Motivated**

Motivation is essential in keeping employees engaged and productive in their work. Through proper training , career guidance and encouragement employees are given preference and will produce best results. Right motivation is essential for productive employees.

### **Increase Employee Performance**

Employee performance refers to how well the people do in their work and their overall attitude in the workplace. Talent management is a big help in performance management in that good employees would naturally have a excellent output in their work.

## **CONCLUSION**

In a nutshell, talent management is essential to build a stable workforce for any organization. The development of the organization depends upon the talented human resources and With new job opportunities coming up, developing staff potential within the company is essential for business profitability and sustainability. Hence talent management plays a vital role in organizations .Right men for the right job in right time will lead to a successful organizational culture.

## **AN ANALYTICAL STUDY ON THE FINANCIAL PERFORMANCE OF LIFE INSURANCE CORPORATION OF INDIA**

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### **ABSTRACT**

In the social sciences, there are number of studies that have been conducted related to different disciplines. But there is an untouched area related to financial performance of Life Insurance Corporation of India. In India, the insurance sector plays a significant role in terms of investment and employment from the point of view of socio-economic development of the country. Any change in the economic policy of the government will have an impact on its financial stability. Due to the availability of many insurance companies, demand for LIC is less when compared to early years. Many private insurance companies have been providing more offers when compared to Life Insurance Corporation. In this aspect, analytical study on the financial performance of Life Insurance Corporation of India has been undertaken in this study. Therefore, an attempt has been made to analyze and evaluate the financial performance of Life Insurance Corporation of India. The study attempts to identify the working capital position of LIC of India. The study also attempts to find the impact on claims outstanding and funds for discontinued policies of LIC of India.

### **FINANCIAL PERFORMANCE**

Financial performance is a subjective measure of how a firm can use assets from its primary mode of business and generate revenues. The term is also used as a general measure of a firm's overall financial health over a given period. Analysts and investors use financial performance to compare similar firms across the same industry or to compare industries or sectors in aggregate. Financial performance tells investors about the general well-being of a firm. It's a snapshot of its economic health and the job its management is doing.

### **REVIEW OF LITERATURE**

Sharma and Kumar (2011) examined the effect of working capital on profitability of Indian firms. The data was collected with a sample of 263 non-financial BSE 500 firms listed at the Bombay Stock (BSE) from 2000 to 2008 and evaluated the data using OLS multiple regression. The findings of our study significantly depart from the various international studies

conducted in different markets. The results reveal that working capital management and profitability is positively correlated in Indian companies.

Ganesan (2007) analyzed the working capital management efficiency of firms from telecommunication equipment industry. The relationship between working capital management efficiency and profitability is examined using correlation and regression analyses. ANOVA analysis is done to study the impact of working capital management on profitability. Using a sample of 443 annual financial statements of 349 telecommunication equipment companies covering the period 2001-2007, this study found evidence that even though day's working capital is negatively related to the profitability, it is not significantly impacting the profitability of firms in telecommunication equipment industry.

Vishnavi and Shah (2007) studied the role of working capital management policies on profitability of a company. Conventionally, it has been seen that if a company desires to take a greater risk for bigger profits and losses, it reduces the size of its working capital in relation to its sales. If it is interested in improving its liquidity, it increases the level of its working capital. However, this policy is likely to result in a reduction of the sales volume, therefore of profitability.

Singh and Pandey (2008) made an attempt to study the working capital components and its impact on profitability of HindalCo Industries Limited for a period 1990 to 2007. Results of the study showed that receivable turnover ratios had statistically significant impact on the profitability of HindalCo Industries Limited. Jack and Matthew (1994) state in their article management of accounts receivable that the simplest means of recovering your accounts receivable is to take active steps to avoid the process entirely.

Ramachandran A and Janakiraman M (2009) analyzed the relationship between working efficiency and earnings before interest and tax of the paper Industry in Indian capital management. The study revealed that cash conversion cycle and inventory days had negative correlation with earnings before interest and tax, while accounts payable days and accounts receivable days related positively with earnings before interest and tax.

## **SCOPE OF THE STUDY**

The present study has a wide scope. Financial performance is influenced by several factors such as capital structure, cost, revenue and profit margin. The business of LIC is based on the settlement of claims and claims discontinued. This study is helpful to analyze the impact

of working capital, trends on claims outstanding and funds for discontinued policies of LIC of India.

### **OBJECTIVES OF THE STUDY**

1. To compare the trends in working capital position in the performance efficiency of Life Insurance Corporation of India.
2. To study the trends on claims outstanding for the years 2020 and 2021.
3. To examine the impact on funds for discontinued policies
4. To summarize the findings and to suggest measure for financial efficiency of Life Insurance Corporation of India.

### **METHODOLOGY**

#### **DATA COLLECTION PROCESS**

The study is entirely based on secondary sources of data related to Life Insurance Corporation of India (LIC). The data has been collected from the Annual reports, Notes to Accounts, Schedule of Accounts from LICs Official Website for the years from 2016-2017 to 2020-2021. Analytical research has been used to undertake in-depth study and evaluation of available information to explain complex phenomenon.

### **HYPHOTHESIS**

To analyze and compare the financial performance of Life Insurance Corporation of India (LIC) working capital and trend analysis were used in the study.

### **FINANCIAL TECHNIQUES USED IN THE STUDY**

- Trend Analysis

### **LIMITATIONS OF THE STUDY**

- The study is mainly based on the secondary sources of information.
- The study is confined to Life Insurance Corporation of India (LIC).
- The study is related to the financial performance of Life Insurance Corporation of India (LIC).
- The Annual reports of LIC for five years period from 2016-2017 to 2020-2021 are taken in to account for analyzing the data.
- The reliability of the study depends upon the information published in the annual

reports.

### PART - I

In this part, an attempt has been made to study the working capital position of Life Insurance Corporation of India for this purpose trend analysis has been used.

#### TREND ANALYSIS ON WORKING CAPITAL OF LIFEINSURANCE CORPORATION OF INDIA

(IN LAKHS)

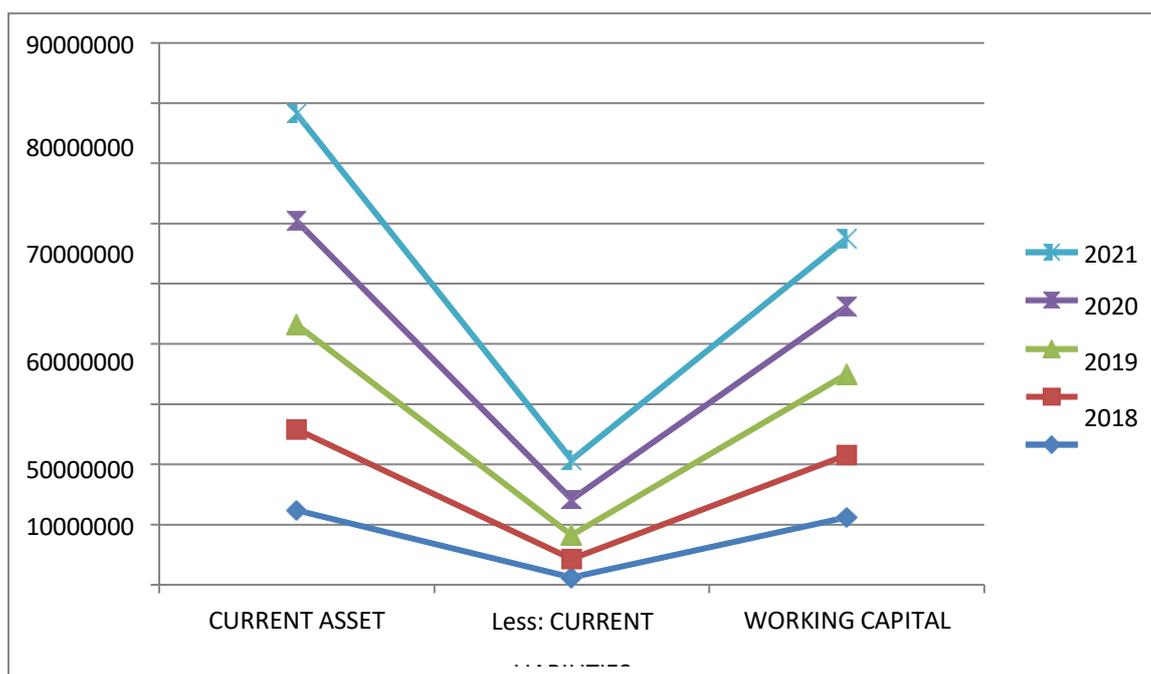
PARTICULARS	2017	2018	2019	2020	2021
<b>Current Assets</b>	12370106.74	13436349.47	17394260.98	17217232.72	17829691.30
<b>Less: Current Liabilities</b>	1195048.86	3073533.11	3959521.81	5959987.12	6555323.48
<b>Working Capital</b>	11175057.88	10362816.36	13434739.17	11257245.6	11274367.82

Source: Annual Report

#### INTERPRETATION

From the above table it can be observed that the Current Assets in the year 2017 is 12370106.74 rupees in lakhs, in the year 2018 is 13436349.47 rupees in lakhs, in the year 2019 is 17394260.98 rupees in lakhs, in the year 2020 is 17217232.72 rupees in lakhs and in the year 2021 is 17829691.30 rupees in lakhs. The Current Liabilities in the year 2017 is 1195048.86 rupees in lakhs, in the year 2018 is 3073533.11 rupees in lakhs, in the year 2019 is 3959521.81 rupees in lakhs, in the year 2020 is 5959987.12 rupees in lakhs and in the year 2021 is 6555323.48 rupees in lakhs. The Working Capital in the year 2017 is 11175057.88 rupees in lakhs, in the year 2018 is 10362816.36 rupees in lakhs, in the year 2019 is 13434739.17 rupees in lakhs, in

the year 2020 is 11257245.6 rupees in lakhs, and in the year 2021 is 11274367.82 rupees in



**lakhs.TREND ANALYSIS ON WORKING CAPITAL OF LIFE INSURANCE CORPORATION OF INDIA**

**INTERPRETATION**

From the above chart it can be observed that trend analysis shows positive impact on working capital for all the five years. The current asset is increasing from the year 2017 to 2021 except in the year 2020. The current liability is increasing from the year 2017 to 2021. Therefore, the working capital is fluctuating every year from 2017 to 2021

**PART – II**

In this part, an attempt has been made to compare for the two years period 2020 and 2021 of life Insurance Corporation of India for this purpose Trend analysis has been used.

**TREND ANALYSIS ON CLAIMS OUTSTANDING OF LIFEINSURANCE CORPORATION OF INDIA**

**(IN LAKHS)**

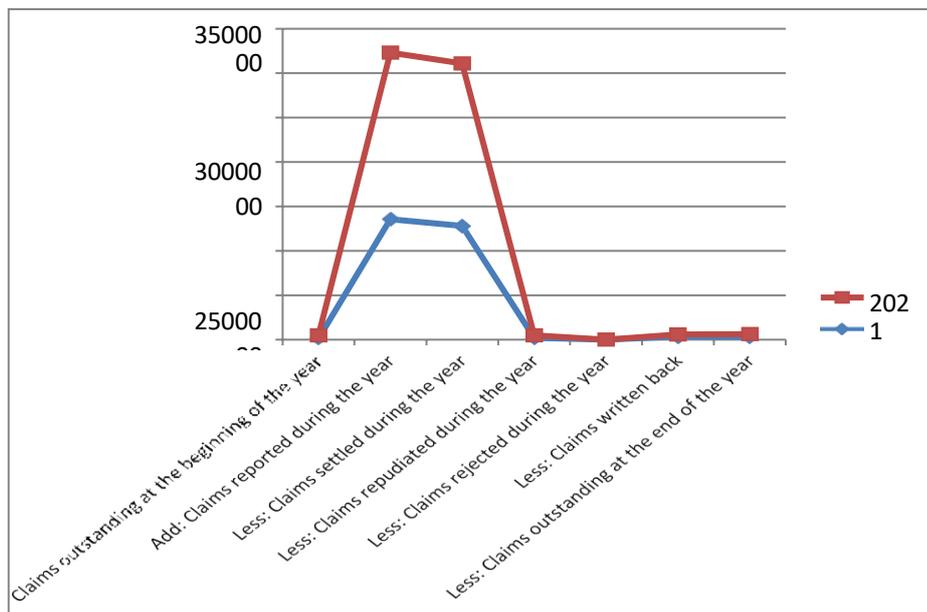
<b>PARTICULARS</b>	<b>2020</b>	<b>2021</b>
<b>Claims outstanding at the beginning of the year</b>	13592.00	34969.00

<b>Add: Claims reported during the year</b>	1355842.00	1875565.00
<b>Less: Claims settled during the year</b>	1279785.00	1829558.00
<b>Claims repudiated during the year</b>	20502.00	27693.00
<b>Claims rejected during the year</b>	208.00	392.00
<b>Claims written back</b>	33970.00	23649.00
<b>Claims outstanding at the end of the year</b>	34969.00	29242.00

Source: Annual Report

**INTERPRETATION**

From the above table it can be observed that the Claims outstanding at the beginning of the years 2020 and 2021 is 13592.00 and 34969.00 rupees in lakhs. The Claims reported during the years 2020 and 2021 is 1355842.00 and 1875565.00 rupees in lakhs. The Claims settled during the years 2020 and 2021 is 1279785.00 and 1829558.00 rupees in lakhs. The Claims repudiated during the years 2020 and 2021 is 20502.00 and 27693.00 rupees in lakhs. The Claims rejected during the years 2020 and 2021 is 208.00 and 392.00 rupees in lakhs. The Claims written back in the years 2020 and 2021 is 33970.00 and 23649.00 rupees in lakhs. The Claims outstanding at the end of the years 2020 and 2021 is 34969.00 and 29242.00 rupees in lakhs.



**TREND ANALYSIS ON CLAIMS OUTSTANDING OF LIFEINSURANCE  
CORPORATION OF INDIA**

**INTERPRETATION**

From the above chart it can be observed that trend analysis shows positive impact on claims of Life Insurance Corporation of India in the years 2020 and 2021. The claims were outstanding at the end of year 2020 is higher than the year 2021. Therefore, it can be concluded that Life Insurance Corporation of India is settled more claims to the policyholders in the year 2021

**PART – III**

In this part, an attempt has been made to examine the fund for discontinued policies for this purpose trend analysis has been used. Time series for three yearly moving average method has been used for the Policy holders and chain base index method has been used for premium of Life Insurance Corporation of India. It is presented in the following tables and suitable interpretation has been made.

**TREND ANALYSIS ON FUND FOR DISCONTINUED POLICIES OF LIFE  
INSURANCE CORPORATION OF INDIA**

**(IN LAKHS)**

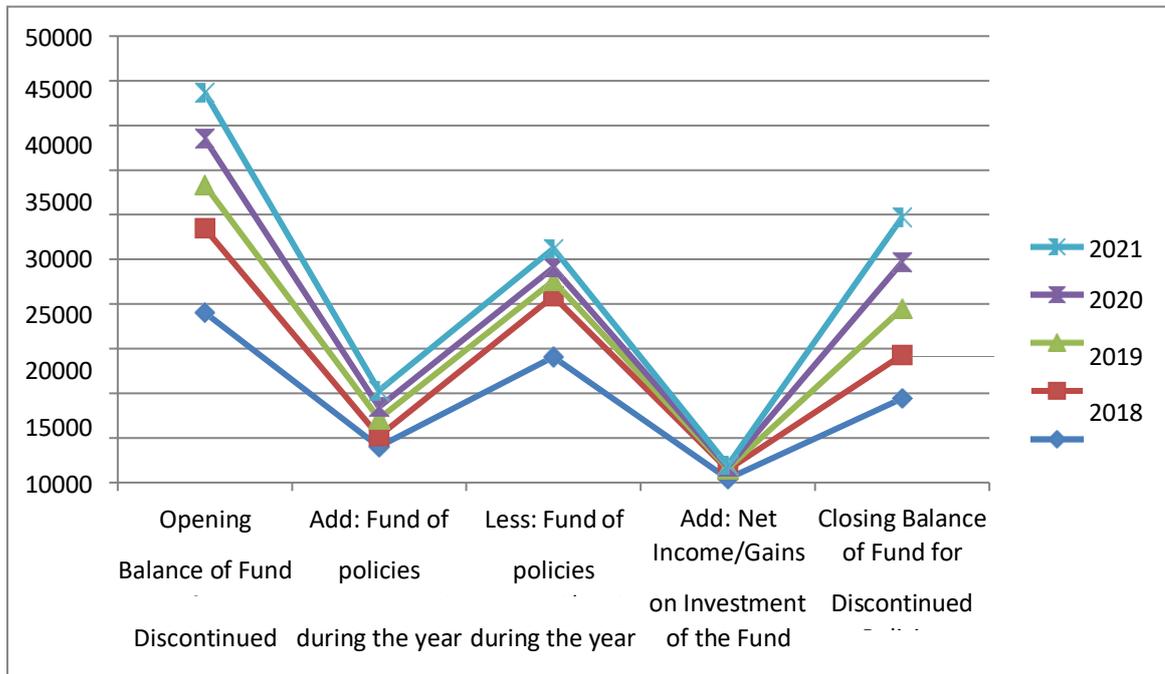
<b>PARTICULARS</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>
<b>Opening Balance of Fund for Discontinued Policies</b>	19037.68	9433.41	4844.34	5178.00	5185.91
<b>Add: Fund of policies discontinued during the year</b>	4010.07	1191.47	1942.16	1326.41	1821.79

<b>Less: Fund of policies revived/Paid during the year</b>	14052.16	6792.71	1717.13	1486.16	2129.35
<b>Add: Net Income/Gains on Investment of the Fund</b>	437.82	1012.17	108.63	167.66	187.99
<b>Closing Balance of Fund for Discontinued Policies</b>	9433.41	4844.34	5178.00	5185.91	5066.34

### INTERPRETATION

From the above table it can be observed that the Opening Balance of Fund for Discontinued Policies in the years 2017, 2018, 2019, 2020, and 2021 is 19037.68, 9433.41, 4844.34, 5178.00, and 5185.91 rupees in lakhs respectively. The Fund of policies discontinued during the years 2017, 2018, 2019, 2020, and 2021 is 4010.07, 1191.47, 1942.16, 1326.41, and 1821.79 rupees in lakhs respectively. The Fund of policies revived/Paid during the years 2017, 2018, 2019, 2020, and 2021 is 14052.16, 6792.71, 1717.13, 1486.16, and 2129.35 rupees in lakhs respectively. Net Income/Gains on Investment of the Fund in the years 2017, 2018, 2019, 2020, and 2021 is 437.82, 1012.17, 108.63, 167.66, and 187.99 rupees in lakhs respectively. Closing Balance of Fund for Discontinued Policies in the years 2017, 2018, 2019, 2020, and 2021 is 9433.41, 4844.34, 5178.00, 5185.91, and 5066.34 rupees in lakhs respectively.

## TREND ANALYSIS ON FUND FOR DISCONTINUED POLICIES OF LIFE INSURANCE CORPORATION OF INDIA



### INTERPRETATION

From the above chart it can be observed that trend analysis shows fluctuation on fund for discontinued policies for all the five years. The fund for discontinued policies were high in the year 2017, it started to decrease in the year 2018. It started to increase in the years 2019 and 2020, and again it started to decrease in the year 2021. Therefore, it can be concluded that fund for discontinued policies were fluctuating from the year 2017 to 2021.

### FINDINGS

- Trend analysis has been used to find out the working capital of the Life Insurance Corporation of India it was observed that working capital of the Life Insurance Corporation of India is fluctuating every year from 2017 to 2021. To increase the working capital the Life Insurance Corporation of India should decrease the current liabilities.
- Trend analysis has been used to find out the claims outstanding of the Life Insurance Corporation of India it was observed that Life Insurance Corporation of India is settled more claims to the policyholders in the year 2021, also the claims were outstanding at the

end in year 2020 is higher than the year 2021.

- Trend analysis has been used to find out the fund for discontinued policies. It was observed that the fund for discontinued policies were high in the year 2017. The fund for discontinued policies is fluctuating from the years 2017 to 2021.

## SUGGESTION

- From the calculation of trend analysis on working capital it could be suggested that to increase the working capital of the Life Insurance Corporation of India it should decrease the current liabilities and it should increase the current assets.
- From the calculation of claims outstanding, it could be suggested that to decrease the outstanding of claims the Life Insurance Corporation of India should decrease the repudiation of claims which as having no authority to claim or not covered under the policy conditions.

## CONCLUSION

In this study, an attempt has been made to analyse the financial performance of the Life Insurance Corporation of India for the five years periods from 2016-2017 to 2020-2021. Trend analysis of working capital is fluctuating every year from the financial years 2016-2017 to 2020-2021. The Life Insurance Corporation of India has settled more claims to the policy holders in the year 2021. Trend analysis of fund for discontinued policies is 16-2017 to 2020-2021.

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## AN INSIGHT OF ONLINE MARKETING TOOLS AND TECHNIQUES USED BY BUSINESS ENTERPRISES TO ATTAIN THE MARKET SHARE

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**Abstract** – Introduction to Online Marketing. Online Marketing is the term which is quite popular nowadays to succeed in market , to compete with competitors. It is a powerful tool used invariably by different nature of companies to succeed in market, to pass information , to increase market share etc. Online Marketing is less expensive tool used to promote the business enterprise products and services and is faster means of transmission of information to a mass group of people. Different Techniques of Online Marketing is available and business enterprises choose the techniques depends upon their need and purpose.

### INTRODUCTION

Online marketing is also known as internet marketing, web marketing, or digital marketing. Online marketing is a set of tools and methodologies used for promoting products and services through the internet. Online marketing includes a wider range of marketing elements than traditional business marketing due to the extra channels and marketing mechanisms available on the internet. Electronic commerce is increasing day by day all over the world. Perspective of offline marketing is vanishing and is being taken over by online marketing. Online marketing has multiple wings such as advertisement, promotion, selling, banner ads, emails, search engine marketing optimization, blog marketing, article marketing, information management of customers, customer relationship, customer service, social media, chat forums, reminders and after sale services, etc., of goods and services.

### IMPORTANCE OF ONLINE MARKETING

- Effective online marketing programs leverage consumer data and customer relationship management (CRM) systems. Online marketing connects organizations with qualified potential customers and takes business development to a much higher level than

traditional marketing. It also helps a company raise its brand awareness by establishing its online presence across the Internet.

- Number of Internet users is an important indicator of online marketing development. Open access of Internet has been available to masses for about 30 years, and every day, prospective development is taking place in technology of Internet. People are doing almost everything with their computers, iPods, palm tops, tablets or mobiles, for example, shopping, ordering, booking, travelling, locating using locators, positioning, communicating using different types of communications and conducting research.
- Online marketing proffers enormous amount of possibilities for companies, however, to remain in the race, it is essential to constantly develop different types of strategies to meet the ongoing challenges and threats. In this process, one of the important aspects is to understand the consumers' behaviour in choosing a particular brand from the market flooded with numerous products.
- A successful strategy is to understand the prospective buyer's behaviour and measures that a firm takes to satisfy consumers' expectations. The psychoanalysis of online marketing is multifaceted; however, to facilitate different kinds of analyses, web controlling tools are available.

## ONLINE MARKETING TECHNIQUES AND TOOLS

"People no longer want a lot of information about the products or brands in the advertisements they watch," says Teixeira, an assistant professor at Harvard Business School who has spent the last four years figuring out the factors that make or break online ads. "In the past, when a company launched a new product, the advertisement would include all the information about the product so people could discover whether they wanted to buy it. But now they have all the information about all the new products available to them online. Now, they want ads to entertain them." But making an ad go viral requires more than mere entertainment.

According to Teixeira's research, successful viral advertising requires four key steps: attracting viewers' attention, retaining that attention, getting viewers to share the ad with others, and persuading viewers. "The issue is that some content is better at the first stage, some is better at the second stage, some is better at the third, and some is better at the fourth," says Teixeira. "The challenge lies in getting the best mix of all four ingredients and baking them into the ad."

Online Marketing includes several branches such as,

1. Search Engine Optimization (SEO)
2. Pay-per-click advertising (PPC)
3. Social media marketing (SMM)
4. Content marketing
5. Mobile marketing and
6. E-mail marketing.

### **1. SEO stands for “search engine optimization.”**

In simple terms, it means the process of improving the site to increase its visibility when people search for products or services related to the business in Google, Bing, and other search engines. The better visibility the pages have in search results, the more likely they are to garner attention and attract prospective and existing customers to their business.

#### **SEO PROCESS-**

Search engines such as Google and Bing use bots to crawl pages on the web, going from site to site, collecting information about those pages and putting them in an index. Think of the index like a giant library where a librarian can pull up a book (or a web page) to help you find exactly what you're looking for at the time. Next, algorithms analyze pages in the index, taking into account hundreds of ranking factors or signals, to determine the order pages should appear in the search results for a given query. In our library analogy, the librarian has read every single book in the library and can tell you exactly which one will have the answers to your questions. The Periodic Table of SEO Factors organizes the factors into six main categories and weights each based on its overall importance to SEO. For example, content quality and keyword research are key factors of content optimization, and crawlability and speed are important site architecture factors.

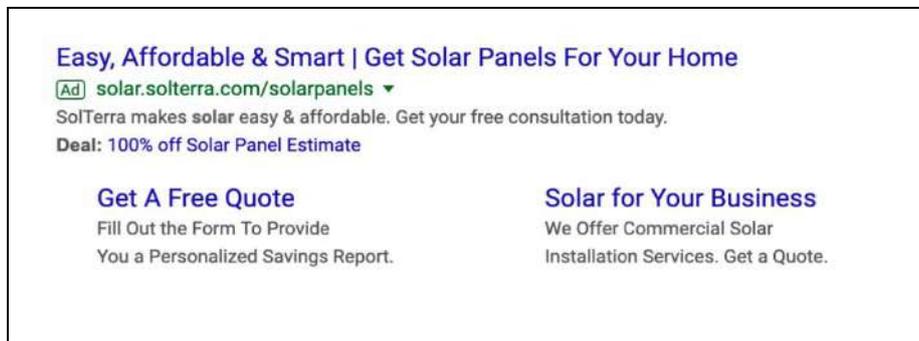
### **2. Pay Per Click marketing –**

PPC is a model of advertising that allows marketers to pay only when their ad is clicked by an online user. Search engines like Google and Bing make pay per click advertising available on an auction basis. To show an ad on a search engine results page (SERP)

The most common PPC ad format appears on search results pages of search engines like Google or Bing. Advertisers have the opportunity to place their brand, product, or service front and center in the form of an ad that targets a specific keyword or behavior. Most PPC ads appear in search results, but not all.

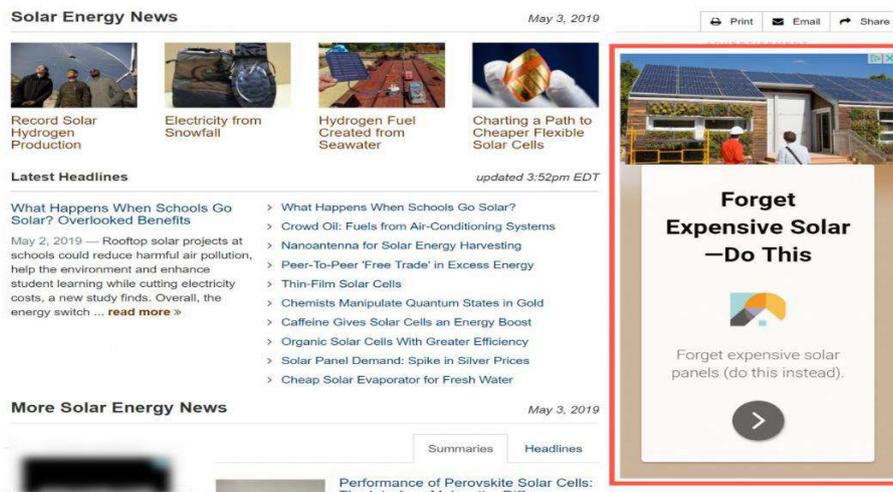
There are three main types of pay-per-click marketing ads.

a) **Text Ads - A text ad is composed of a written copy by the advertiser. Format and character limits are dependant on the PPC platform. Text ads are most commonly triggered through the Search Network- when users search on Google or Bing for a keyword held within the PPC campaign. For example –**



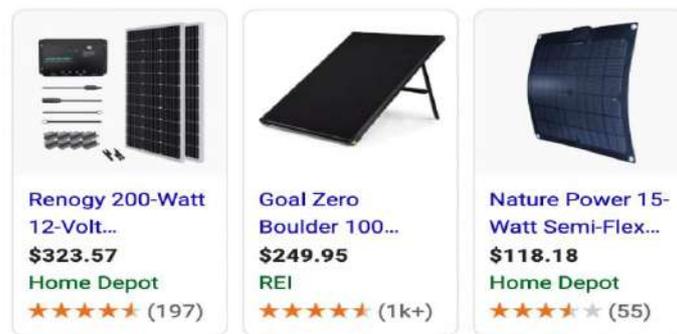
b) **Display Ads - A display ad is typically delivered in a format of an image or motion graphic. PPC platforms that offer display advertising often have size and content requirements advertisers must comply with when creating their visual creative.**

Here is an example of a display ad:



c) **Shopping Ads** - A shopping ad is typically delivered after a searcher submits a query through a search engine or shopping engine. Shopping ads typically contain an image of the product, the price of it, and any pertinent specifications like size, color, dimensions, etc.

This is what a typical shopping ad looks like:



Countless platforms offer text, display, and shopping PPC ad placement but there are three core platforms that businessmen can't ignore. They are Google Ads, Microsoft advertising formally Bing Ads and Amazon advertising.

**3.Social Media Marketing** - SMM is the use of social media websites and social networks to market a company's products and services. Social media marketing is the process of creating tailored content for each social media platform to drive engagement and promote your business.

Social media marketing is all about connecting with the audience or customers and helping them understand the brand better. It is incredibly beneficial to the business growth. The social media marketing success largely depends on the ability to find and make the target audience happy so that they like the brand and share the stories with others.

Today's consumers rush to browse social media when they want to know more about an organization or product because that's where they'll find others talking about that business. Social media is an ideal place for brands looking to gain insights into their audience's interests and tastes. The way experts see it, smart companies will continue to invest in social media to achieve sustainable business growth.

**4.Content Marketing** – It is the process of creating and distributing digital assets, such as blog posts, videos, ebooks, technical and solution briefs, and a variety of other digital content to

provide information to your audience. Content marketing is essential to search engine optimization (SEO) success.

There are typically five goals when it comes to content marketing:

- 1 Increase marketing conversions by driving traffic to key landing pages
- 2 Expand brand awareness
- 3 Build and enhance customer relationships
- 4 Bring in revenue
- 5 Boost SEO efforts

**5.E-mail Marketing** - Email marketing is a powerful marketing channel, a form of direct marketing as well as digital marketing, that uses email to promote your business's products or services. It can help make your customers aware of your latest items or offers by integrating it into your marketing automation efforts.

Email marketing works to support your organization's overall marketing strategy. This is done through email campaigns. A campaign typically coordinates with a marketing promotion and includes a specific call to action. They're often sent through email service providers such as Mailchimp, Campaign Monitor, Constant Contact, and Cakemail.

#### **Steps to create a e-mail marketing campaign-**

##### 1. Build a List

To reach a big audience you need to grow a big audience. This means building an email list.

##### 2. Send Quality Content

The goal of email is to communicate something important to the readers. However, if the content and delivery aren't quality, chances are the message will never get opened. Content should add value, enticing subject line, mobile friendly, clear objective and brand guidelines to gain brand familiarity.

##### 3. Utilize Automation

With email automation, you can create a series of emails that are automatically sent to your subscribers. For example, emails can be action triggered, so if someone subscribes to your list, a thank you message can be immediately sent to their inbox. This means you spend less time manually scheduling and sending emails, which can help maximize your team's marketing efforts. Given the time-saving benefits of email automation, it's no surprise 75% of marketers use at least one automation tool.

#### 4. Understand Analytics

To get the most out of the email marketing efforts, they need to know what's working and what's not, so they can make improvements along the way. Email analytics gives the information to do just that.

Most email marketing tools use tracking features to automatically gather data for each campaign they send. As soon as an email hits the subscriber's inbox, information such as click-through rates, conversions, opens rates, and unsubscribes are collected for the review.

**6.Mobile marketing-** It is a way to promote products or services through mobile devices. With this strategy, target consumers access location and time-sensitive customized content that promotes certain products, services, or ideas.

#### Types of Mobile Marketing

- a. Mobile app marketing
  - b. In-game advertisements
  - c. Quick-response barcode
  - d. Mobile banner ads
  - e. Proximity or Bluetooth marketing
  - f. Voice Marketing
  - g. SMS
- **Mobile app marketing.** Mobile apps allow businesses to include ads in specific mobile application designs. Facebook is an excellent example of ads in an app.
  - **In-game advertisements.** This approach refers to all advertisements on mobile devices that pop up when certain games are opened or in progress. These ads can appear as full-image ads, banner pop-ups, or video ads that show up during loading screens.
  - **Quick-response barcode (QR codes).** These barcodes are scanned using the camera of a phone, and then the customers are redirected to the linked site from where they can see more information regarding a particular brand.
  - **Mobile banner ads.** These banners are pretty much the same as the ones on the desktop, only that they are adequately smaller to fit on the screens of mobile devices.

- **Proximity or Bluetooth marketing.** With this approach, consumers get location-specific ads enabled from the Bluetooth on their devices.
- **Voice marketing.** This is when businesses use computer produced and automated calls to promote their goods or services. It is up to the customer to decide whether to hang up or listen to the phone call.
- **SMS marketing.** This method of mobile marketing is, by far, the most common. Marketers use this medium to reach out to customers with offers and other relevant information via their mobile gadgets.

### Conclusion

Online Marketing paves way to both largescale and smallscale companies in their own method to get success in their respective business. The business enterprise which develops creative and innovative method of online marketing reaps the benefit of success. Usage of various techniques of online marketing is depends upon how creatively they utilise this opportunity to get attention of customers and people. Technical Skills is very important to get success while using this method of online marketing by the business enterprises.

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## A STUDY ON POSITIVE AND NEGATIVE EFFECTS OF SOCIAL MEDIA ON EDUCATION

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### ABSTRACT

Nowadays Social Media possess a vital role in all the fields which includes employment, business, education, tourism, healthcare etc. The impact of social media reflects both advantages and disadvantages in each and every field. In this paper we are going to discuss about the positive and negative effects of social media on education. Education is one of the important ladder for each and every student, because education not only educates them, it also shows the right path for their future development. Yes we shall discuss about the various effects of social media on education.

**KEYWORDS:** Social Media, Education, Effects, Students.

### INTRODUCTION

Social media helps to exchange ideas and information through virtual communities like whatsapp, Instagram, face book, tiktok, you tube etc. Social media helps us to get information about various prospects through virtual communities. During the traditional period we were depending only upon newspapers and magazines. But the latest development in technology helps us to learn many new facts and implement it in our normal course of life.

### SOCIAL MEDIA AND EDUCATION

Education system has emerged with drastic changes due to the influence of social media. In the traditional period students used to go to library for reference purposes but nowadays the whole library is brought to us with the help of online facilities. When we are using a specific link we can get the whole information regarding the books or journals which we want to refer. Mainly it is useful for the students who does research or goes for higher education. We can segregate the usage of students into various categories such as students from kindergarten, middle school, higher secondary, UG, PG, Research, employment, business, healthcare, tourism etc. Yes once they get educated about the usage they can use it for may purposes according to their flexibility.

## POSITIVE EFFECTS OF SOCIAL MEDIA

Our life is full of hurdles, we should cross all the difficulties we face as that of a challenge. So we should take all the challenges with positivity. Now let us discuss about the positive effects of social media.

- Encourages online learning
- Inculcates creative knowledge
- Helps to develop academic performance.

### ENCOURAGES ONLINE LEARNING

Online learning helps students to broaden their mind in a specific subject or skill oriented activities. In spite of the knowledge they gain in their schools or colleges they need more guidance which they receive from the social media .If they are searching any information in Google they can get an elaborate explanation through clear videos or notes .This helps students to get updated. We can take the example of various online coaching providers like BYJUS, YOUTUBERS etc.

### INCULCATES CREATIVE KNOWLEDGE

Learners always search for many new information. Rather than the information they get through books and classroom activities, they need some knowledge gaining facilities. Those facilities are provided by way of social media. They can do research in their specific interest and gain more outcomes which helps them to expose their talent and enrich their knowledge with creative ideas and thoughts.

### HELPS TO DEVELOP ACADEMIC PERFORMANCE

Academically if any guidance is needed for a student means they can use the potentials which they get from social media .Even if they are poor in mathematics or English they can go through various online facilities and gain their knowledge most effectively. It also helps them to learn independently. They can grasp more information about the subject of information they are in need.

## NEGATIVE EFFECTS OF SOCIALMEDIA

It is well known to us that even when most of the things we were discussing about the social media were positive we also come through negative aspects such as

- Causes Distraction
- Reduces learning and research capability
- Affects Health

#### CAUSES DISTRACTION

If students are using social media even for good purpose some videos or pictures will affect the mind of each and every student which leads to distraction. If distraction occurs the student will not be able to show concentration in studies as that of before and it will lead to so many problems such as getting low marks,, less concentration in day to day activities, some students also disobey parents.

#### REDUCES LEARNING AND RESEARCH CAPABILITY

When a student searches for any new information in the website, he crosses through various unwanted information which spoils their career a lot. For example if a student gets addicted to games while he was searching for new information, they will be showing most of their involvement in games rather than studies. It will spoil their knowledge and leads to poor performance in academics.

#### AFFECTS HEALTH

There is so much of difference between online and offline learning habits. In offline students will be learning through blackboard, lectures, books and notes. But on the other side in online they will be engaged with mobiles and laptops, which spoils their eyesight, mental health etc.

#### CONCLUSION

Thus we shall conclude that social media is one of the wonderful facility which helps us to get economic development, business development, social development, technological development, educational development etc. Even though it possess both the positive and negative effects in education, we should always concentrate on positivity and try to avoid the negativity by way of certain principles. If we are following certain policies like that of do's and don'ts in usage of social media surely our knowledge, health etc will be safeguarded.

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- <https://www.google.com/search?q=social+media+means&oq=SOCIAL+MEDIA+MEANS&aqs=chrome.0.0i20i263i512j0i512j0i10i512l8.5981j0j7&sourceid=chrome&ie=UTF-8>

## A STUDY ON EMPLOYEES RETENTION STRATEGIES USING DESIGN THINKING WITH RESPECT TO IT INDUSTRIES

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### **Abstract**

The study reveals about the Retention Strategies followed in IT industries, particularly during the past two years there are more number of attrition rates, in this regards it is decided to know the exact problem in IT industries and suggest to reduce the attritions rate. Sample of 140 samples were collected through survey method from different IT sector employees and analysed using various statistical tools.

### **Introduction:**

In the competitive business scenario, employee retention turns into a major issue in every organization. For instance, if an employee leaves the organization, the management needs to incur additional expenses on recruiting, hiring and training a new employee. Therefore, it is essential for any organization to implement an employee retention strategy to hold their top talents for a prolonged period of time in the organization. It is also to be noted that most of the organization invests time and money to prepare a brand-new joiner, build him/her to confront the corporate workplace at equivalence with the prevailing employees to accomplish the organizational goals (Sri, Krishna and Farmanulla, 2016). So, the formulation of a right retention strategy enables the management to save cost as well as helps in developing a sustainable competitive advantage.

Design problems are understood from different perspectives, thus a collection of differently skilled designers can, in principle, go beyond individual knowledge and reach new concept ideas. For this reason, manufacturing companies often embrace collaborative approaches in product design processes

by involving experts from different disciplines in sharing knowledge, performing the design tasks and organizing resources. This approach assumes relevance and importance in the early stages of the product design process (otherwise known as the concept design phase<sup>2</sup>) where intensive collaboration among designers is necessary to create a shared understanding of the product concept. This then creates a formal description of the form, function and features of the product.

Human capital is considered as one of the essential component in sustainable competitive advantage (Bassi and McMurrer, 2007; Memon et al., 2009) in any business circumstances. It is also to be noted that organizational success depends upon competitiveness (El Toukhy, 1998; Olckers and Du Plessis, 2015). This presumes that the competitiveness intensively relies on the ability of the organization to attract, develop and retain psychologically connected employees from all demographical segments with the defined skill set and capability (Torrington et al., 2009; Olckers and Du Plessis, 2015).

### **Research Problem**

The major focus of this study is to determine the impact of retention of the talented workforce in the organization. Indian IT industry is facing acute shortage of skilled IT professionals. Now large numbers of domestic as well as multinational Companies are setting up their development centres in India for creating several job opportunities.

### **Need for the study**

The objective of this study is to identify different factors that affect the retention of employees in an organization.

### **Objectives of the study**

1. To find out the factors influencing employee retention strategies in the IT industry
2. To assess the influence of employee retention strategies of organization on the personal factors of the employees
3. To measure the relationship between organizational factors on the perception of employees' retention strategies
4. To examine the impact of employee retention strategies on the organizational and individual employee effectiveness

**Review of Literature:**

The present research study is focused on identifying the impact of employee retention strategies on the organizational and individual employee effectiveness in the Information Technology (IT) industry.

Saravanan and Vasumathi (2017) identified and encouraged a learning culture, leadership engagements, career advancements, employee-engagement drives, increasing the level of satisfaction, and work-life balance initiatives, etc. HR experts should focus on and decrease attrition levels through a wide range of rewards and recognition programs, counseling, mentoring programs, the creation of a positive and friendly work environment, promoting employment involvement, participation, and generating and retaining a talented workforce in the organization.

Sathyanarayana et al., (2017) studied the determinants of employee engagement in the Indian IT sector. The study highlighted that the challenge is not only on recruitment, and also on retention to make the employee happy or satisfied in the assigned roles and tasks.

Ansari and Bijalwan (2017) studied the impact of demographic factors such as gender, qualification, experience, and tenure on employee retention (ER) and team effectiveness in Uttarakhand state across the different organization. The results indicated that the employee tenure influenced positively on employee decisions to stay in the organization. Furthermore, the study highlighted that employee retention strategy helps to enhance and develop team effectiveness in the service sector. Moreover, the study shed light on the need for retaining valuable employees to increase organizational and individual effectiveness.

**Research Methodology:**

The study has adopted analytical and descriptive type of methodology, the descriptive methodology, focus on defining the conceptual issues, whereas the analytical methodology used to ascertain various factors influencing employees retention strategies in the IT industries and to measure the organisational effectiveness of the determinants. The main purpose of the research is to investigate the impact of employees retention strategies on organisational in the IT industry using design thinking.

**Method of study:**

Primary data is collected from the employees working in the IT industry, Chennai using structured questionnaire. The secondary source of information was collected from Journals magazines,

publications, reports, books, dailies, websites and company publications. The area of study was conducted in and around Chennai IT employees.

### **Sampling Size and Design:**

Around 50 samples has been collected for the IT employees who is working in and around Chennai. Convenience sampling method is used to collect the samples from the IT industries employees.

### **Data Analysis and Interpretation**

#### **Chi - Square Analysis**

1. Analysis of Employees Opinion about Gender of Employees and workload is equal among all members of the team.

Step 1:

Null Hypothesis (H<sub>0</sub>) : There is no significance relationship between gender of employees and their workload is equal among all members of the team.

Alternative Hypothesis (H<sub>1</sub>) : There is significance relationship between gener of employees and their workload is equal among all members of the team.

Result of Calculation

Factor	Calculated Chi Square	Tabulated Value	Degree of Freedom	Remarks
Gender/Workload	21.35	9.488	4	H1 Rejected

Conclusion:

There is significance relationship between gender of employees and their workload is equal among all members of the team.

2. Analysis of Supervisors is supportive and encouraged and the relationship between employees are quite good.

(Using Rank Correlation)

Rank correlation:

$$= 1 - \frac{6 \sum d_i^2}{N(n^2 - 1)}$$

$$= 1 - \frac{121.5}{120}$$

$$= 1 - 1.0125$$

$$= -0.025$$

$$R = -0.025$$

Conclusion:

Therefore there is a positive correlation between Supervisors is supportive and encouraged and the relationship between employees are quite good.

Analysis of Talents are recognized well in the workplace and Flexible working hours and working conditions are provided by the organizations

Rank correlation:

$$= 1 - \frac{6 \sum d_i^2}{N(n^2 - 1)}$$

$$= 1 - \frac{13.5}{120}$$

$$= 1 - 0.1125$$

$$= 0.888$$

$$R = 0.888$$

**Conclusion:**

Therefore there is a positive correlation between talents are recognized well in the workplace and Flexible working hours and working conditions are provided by the organizations.

**Findings**

64% of the respondents are male, 36% of the respondents are female. 68% of the respondents are from fresher's, 28% of the respondents are from 2 to 3 years of experience, 2% of the respondents are 5 years of experience 68% of the respondents are getting salary between 20-30 LPA, 28 % of the respondents are getting salary between 31–40 LPA. 46% of the respondents are agree with Career Development is encouraged within the organization, 36% of the respondents are Strongly agree with that, 12% of the respondents are neutral, and 6% of the respondents are not satisfied. 44% of the respondents are agree with improve the skills in the workplace, 46% of the respondents are Strongly agree with that. 4% of the respondents are neutral. 54% of the respondents are agree with Talents are recognized well in the workplace, 30% of the respondents are Strongly agree with that. 58% of the respondents are agree with Teams are Supportive and encouraging.

**Suggestion:**

Retention has three major stake holders with In the organization. HR managers, line managers and employees. However HR managers have to act as catalyst and ensure all the stake holders are communicated right expectations of their roles and also facilitate all the support from all the stake holders. Top management have to give importance to employee retention and ask for regular reports like attrition rate, critical attrition, early attrition and attrition costs, voluntary attrition reason, retention benefits. The focus appears to be create fear at work and main act of the box ingredients are a family, friendly culture and innovative way of involving work enthronement.

**Conclusion:**

The research on employee retention can be catagarised into five areas.

Like Measuring turnover rates, finding out reasons for leaving, finding out factors influencing retention, measuring the impact of attrition on productivity performance, examining and evaluating the retention strategies of companies using design thinking. The organization has to redesign their HR priorities and enhance employee. Retention. Conduct interviews with long tenure employees which can give deeper insights in to why employees stay with the company and inputs can be retaining other talent as well.

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## APPLYING NEW ICT TOOLS FOR BUSINESS

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**Abstract:** The application of ICT in business facilitates the services and transactions, productions, money saving, improvising the expertise with client dealing, communications channelizing, streamlining the controls, effective decision making and accessing the data wherever and whenever. ICT globalization and digitalization has changed the business scenario of the organisation in the present market. It is considered as the life wire of the updated civilization which speeds up the globalization and the increasing complexities with reference to the local context and global developments. The objectives of the study are Analyse the role of ICT, Advantages of ICT in business, and Implementation of appropriate ICT infra structure and manage the various technologies of IC to expand the business in the global scenario. Favourably competing in the global scale the company has to improvise its developments globally not only depending on the local content but also understanding the better business practices and culture that pin the present status.

Keywords: ICT, Business environment, Digital , Tools.

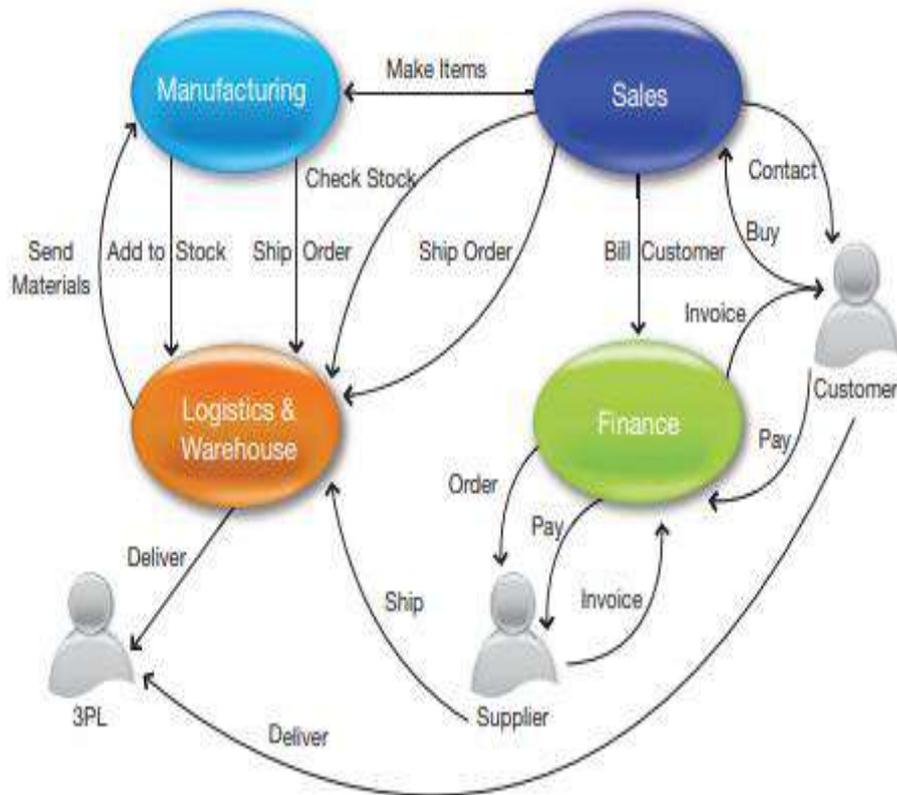
### 1. Introduction

Information Communication tools are widely applied in everyday's internal communication of industries and business for the quality and better outputs of the production. It has its importance in the post covid period where the remote work and meeting in online gained momentum. It changes the social, ecological issues in the business and helps us to attain our targets and goals. ICT tools also improvise the social entrepreneur internal communication, workplace and public outreach issues in a better way. Networking technology is a need for our daily lives. ICT packed

with the digital technology rule over the entire globe caring the storage, retrieval and transmission off the digital knowledge. ICT helps in the activities together with research and development, together with the sales and feedback.

## **2. Literature Survey**

The impact of different competitive strategies like industry, environment was identified by Wade et al. [1] for the change in the product life cycle, distribution channel, geographic market and economic policies with the impact of ICT to balance the forces to compete with consumers and suppliers in market place. Menon et al. [2] analysed the impact of ICT in healthcare by the longitudinal sample data collected from hospital from 1976 to 1994 and classified the production inputs into two categories as labour and capital. The capital was classified into three components as medical IT capital; medical capital and IT capital whereas the labor is classified into two components as medical labour and IT labor. The experiment analysed that the IT contributes positively to the production of services in the healthcare industry. Using the disproportionate stratified purposive approach, the sample of 900 employees was taken from the universities to analyse the performance practices with ICT adoption for the goal setting to achieve the performance. The result build the positive relation with the employer and employee in achieving then targets under the crucial circumstances with ICT adoption in quality of service, reducing the cost and improving the delivery methods by James et al. [3]. Bharadwaj et al. [4] analysed the resource based view of the financial performance to optimize the resource available in the organization. The ICT develop the capability of the organization together with the ICT tools. The firm utilizes the IT resources as infrastructure, human and intangibles. The assessment done with the matched sample comparison group and ratings from the public for profit and cost based measure of performance evaluation. The business centric portfolio addressed with the cost reduction and value addition with the IT incorporation by applying the portfolio strategy to insist on the value of IT and create a room for the investment to achieve the target to great extent by Strassman [5]. The role of Information and communication technology had been widely discussed by the researchers [8-12].



**Figure1. Role of ICT**

### 3. Role of ICT TOOLS in Business

The role of ICT in various channels of production and distribution like manufacturing, logistics, warehousing, finance and sales are given in Figure 1. IMM (Impact Measurement and Management tools) Impact Reporting & investment standards (IRIS+) - It is an online system for measuring, optimising the social impact.

- ✓ Mobenzi- To measure and maximise the impact by digitising the fieldwork and data collection
- ✓ B Impact assessment – It is the complete free interactive online tool to measure the business activities in the different scenario. It includes the stakeholder, workers, suppliers, and the coverage entitled to the mission, governance and measurement on the growth of the business
- ✓ Clear Platform - Assessing the business automated for planning the custom visualisations and project management for advertising the impact.
- ✓ Social Value UK - An excel spreadsheet with predefined formulae for impact calculation using the value map.

- ✓ Global reporting Initiative (GRI) & SDG Compass - Upload the individual report for the social entrepreneurs and helps them to browse on the required detail regarding sustainability and impact ideas.
- ✓ The Impact management project (IMP) - For measuring and assessing the environmental and social impacts on the business, a forum is formed to build the consensus on it.
- ✓ Sustainable Livelihoods (SL) - The SL helps to find how a stake holder's range of assets has the impact on their livelihood and to find out the requirement on the positive and sustainable outcomes.
- ✓ Higg Index - The product sustainability performance to measure and score the brands, retailers and facilities of all the sizes and brands.
- ✓ Planetly – Helps to analyse the company's carbon footprint to fight or the effective planet to rewards.

Many researchers studied on the ICT with the coverage of computerized information and communication technology including the services for desktop computers, wireless intranet, text editor, spreadsheet, data storage and security. Barlow analysed the ICT with the sample date of 120 industrial libraries with 96% responders for the questionnaire to use the computerized system. ICT was applied in the offices with the rank order, email, word processing, spread sheets, packages, database types with World Wide Web, protocol of file transfer and telnet. Standard stabilization, evaluation, hardware and software developments, key elements to design the innovative systems are analysed. To meet the economic downturn and loss occurring in business scenario of every day, cloud computing is a good and innovative technology explore the enrichment or benefit of business profit by ICT techniques. It is a dynamic development of the software fragments for the interactive support, user friendly and user facing like web applications. The applications can be accessed with the browsers form the desktops, retrieving the fragments in the libraries as it is a component based applications by Abdulaziz et al.[6]. The software can be accessed from the cloud by the employees at any time and improvise the capacity of memory storage, compatibility between operating systems. The organisation can utilise the computing power of the cloud technology to enhance the internal computing resources. Cloud computing offers a reliable service at flexible rate.

### **3.1 Factors affecting the ICT Tools in business**

The tools of ICT in business environment are measured by the following factors.

- Organization context

- Technological context
- Technological context
- Firm size and scope
- Technological investment and managerial beliefs
- Environment context

Mediator variables denote the front and back end functionalities together with integrations. The e-Commerce is a variable of moderator type result in the competency of technology in size, firm scope, web technology, intensity for pressure variable etc., The digital era with the technology finds ICT allocations in all the areas including computer, inter and intra net, mobile telephony and different electronic applications applying the e-commerce, e-governance, software applications, editors, data security, wire/wireless net e-banking and smooth broad band technology. Philip et al. [7] analysed the study of small and medium enterprise in Bangladesh to explore the factors affecting success in the business as characteristics of organisation, skill management, variety of products and services, conducting business studies, financial status, cooperating, optimising the resources and the external environment. He also analysed the ways of doing the business to develop the phase in the market place, increasing the international market, cost reduction, improving the strategic position, knowledge gain of new technology and impact of the dynamic technology.

### **3.2 ICT tools for optimizing the daily routine**

#### **3.2.1 Project management tools/work driven tools**

It is mandatory for the organisation to work in remote environment improvising the work force with tracking by superiors and allows the team members to organise the work for efficient way explained in Figure 2.

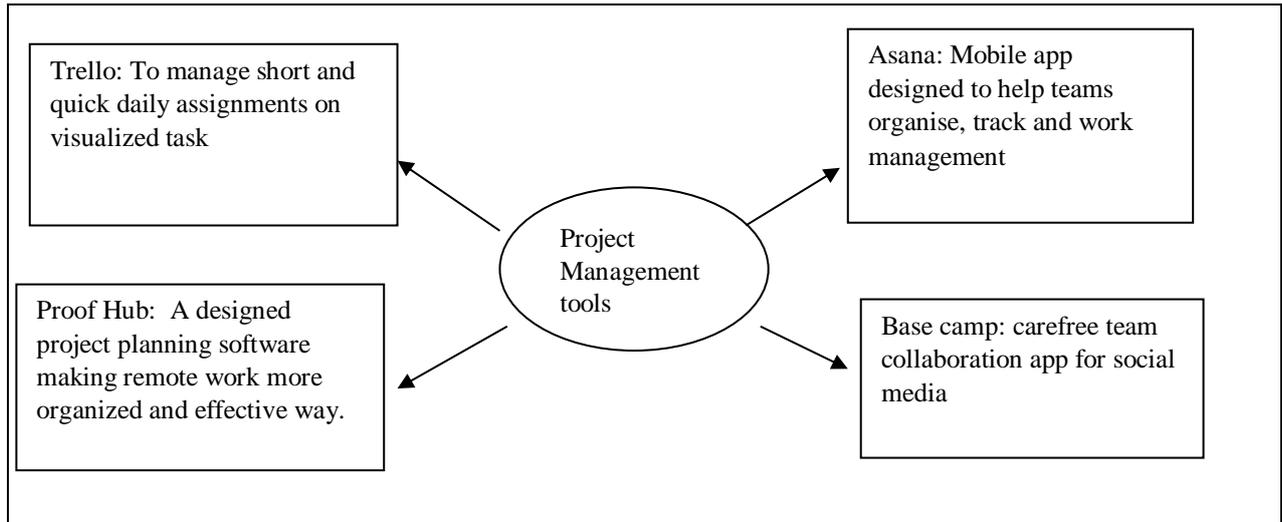
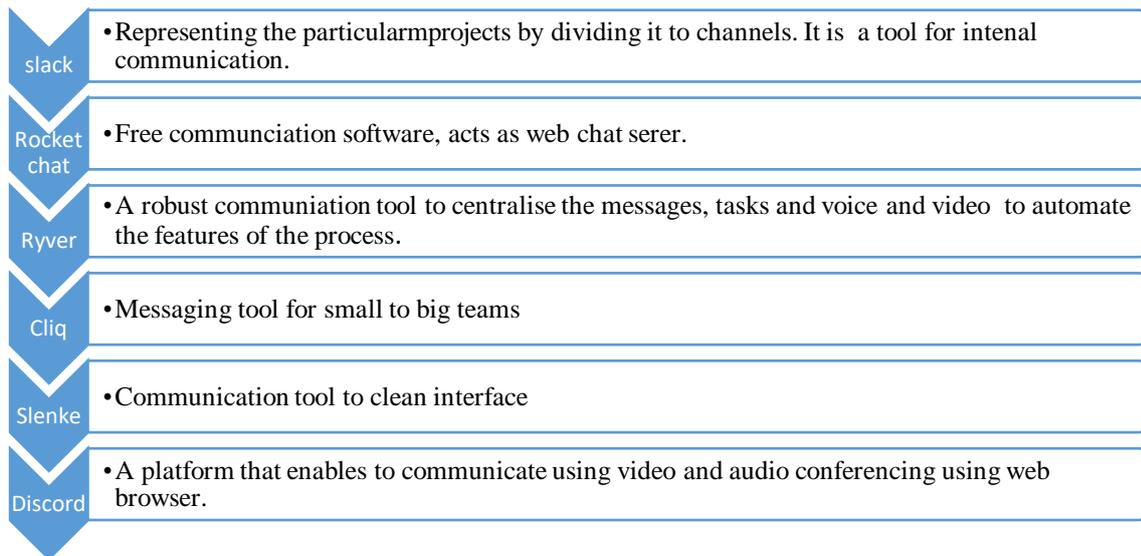


Figure 2 Project management Tools

### 3.2.2 Internal Communication Tools

The internal communication tools are given in the following list .



### 3.2.3 External communication tools

The following diagram in Figure 3 represents the external communication tools used by the public in the present global scenario. It had its origin in the covid 19 pandemic period as the need for the market in the globe. Based on the requirement of the meeting or the conference type, the entrepreneurs can utilise the following services.

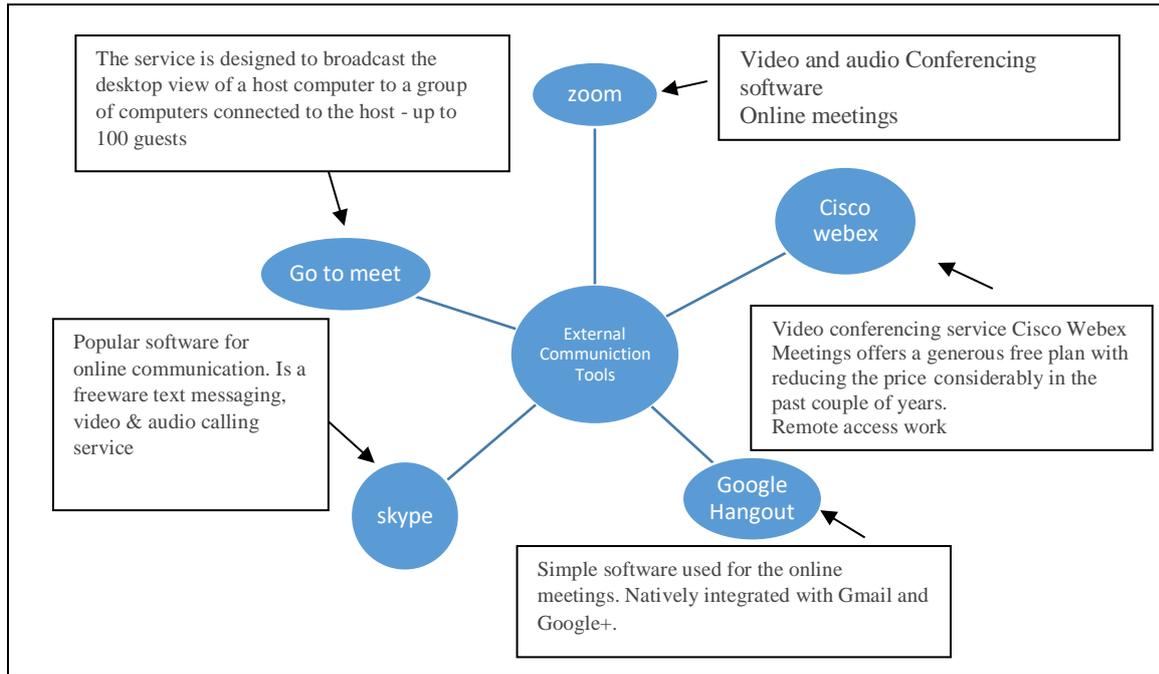


Figure 3. External Tools of ICT

### 3.3 Tools applicable for social and altruistic entrepreneurs

Deep analysis of ICT on various aspects of business development and growth covers the topics for the economic, financial and stress on the importance of ICT facilitation through the authenticable methods for the channelizing the developments. It plays a vital role for promoting various aspects of development.

Tools	Description
Team Viewer	Workspace for team’s discussions, decisions
Chrome Remote Desktop	Extended for Google chrome can be accessed with desktop or laptop/mobile/tablet
MindMeister	To brainstorm the team for mind map
AwwMap	External/internal communication tool with brain storming online whiteboard.
Tricider	Crowd sourcing, idea generation, online tool for collecting ideas and voting trend

SAP Ariba	A direct connection between the business and suppliers
MS Global Social Entrepreneur Ship	Social start-ups for the technology, connection focus n the big vision to the life for betterment
The Do-school	NGO's, governments. Business to catalyse the innovative potential.
Atlas of social Innovation	Social Innovation for the new practices for better future with SI Drive, interactive for the global picture was highlighted.
Lumen 5	To enhanced the brand in the social media within minutes to promote marketing with the content of video.- <a href="#">Canva</a> - one of the most popular online photo & video editing software known
Blender	3D modelling open software. It helps to support the 3D pipeline with animation, simulation, rendering, composite and tracking together with the editing.
Canva	Popular for photo and video editing software in online
Google Suite	It is a suite of cluster of computing, tools collaborated for targeting the tasks. Most useful for collaborative work are Google Drive, Google Docs, Sheets and Slides and Google Forms

### 3.4 Sustainability tools of Business

The sustainability and canvas tools of Business are discussed below:

- Design Kit – Procedural step by step tools and videos to support the entrepreneurs in design, implement and sustaining the impact in the business.
- DIY (Development, Impact and You) - Templates designed to support the innovation for marketing, design and business development.
- SDG Compass - Inventory tools use to achieve sustainable development goals.
- The canvassing models of business are given as
- Strategyzer – Free software to model the business in canvas online.
- Business model inc - Free tool to provide the canvas, target persona, customer journey with procedural steps and instructions.
- BM tool box - Designed for social enterprisers.
- Inventing Green Tool - The social environmental practices identified for online improvement.
- Social Innovation Tool Kit – Help change each and step of the business cycle according to consortium of the partners with the influence.
- Any idea.ai - Future innovative platform to get idea generation with potentiality.
- MaRs Startup Tool – it is a archive of video, templates and tools and aims of the technology of health, finance, enterprise and clean with the potential to build the global and ecological challenges.
- Crowd funding Guidebook - Envisioned the entrepreneurs to raise the awareness in the online mode.

### 3.5 Technical terms in ICT

- Communication: It relates with the workers, suppliers and customers with e-mail, video chat and website.
- Inventory Management: To check the stock demand with the corporation to maintain the associate degree of order of the client demand with the inventory.
- Management information systems: Sharing the information of knowledge is the part of strategic set of the demand to reach the mission to trace profit.
- Customer relationship Management: To design and manage the relationship with the customer with ICT tools. Responding the call of the customer and report with the shipping information on time.

- ERP Software: Informed decisions with the software on online dashboard with the organisation finance, sales, marketing, inventory with supply and material orders.
- Mobile Solution: Google's algorithms create mobile websites with the facet of victimising smart phones.
- Increased client segmentation: Analytic services areas increase with each day focus the Google account will grasp the business in the user form.
- Increased property: It makes the individuals to remain in contact with the video chat having the constant innovation attained with the hyper realism.
- Decreasing prices and increasing utility: Solutions are made cost effective and utility of technology to outreach the public.

### 3.6 Social & Networking Tools

The given below are the tools applicable for social and networking for the enhancement of ICT in business.

Tools	Description
Face book	Information about people connected by Facebook
Social bakers	Buyer persona template to know about the customer
Co Schedule	Marketing calendar integrating the blog, mail and collaborate with social media posts contents and tasks
Creator studio	It is a content creation tools to manage the content and messages to measure the instagram accounts
Hoot suite	It is a content curation tool. Manage multiple media across the platforms in providing real time analytics.
Buffer	Share content and scheduler via twitter
Academies 1.Acumen Academy	Platform conduct the online workshops, seminars for entrepreneurs on the topic mentioned

2.IN SITU Social Entrepreneurial Skills and Competences training (TTT)	Free online workshops conducting training crowd funding assessment to shape the ideas.
3.Red Workshop	For US social entrepreneurs accessible for interested participants across the world with logs and podcasts.

#### 4. Conclusion

The revolution in industries create the economical and productivity process in thousand fold The use of technology in business speed the exponential rate and prepare the globe for the era of technology. Technology has modified facet of business in an effective manner and increase the productivity in a couple of ways. Rapid development in info technology increases the digital methodologies in the workspace facilitating the productivity, exchange of documents, gathering the information and efficient work environment.

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## FOREIGN EXCHANGE STUDY ON THE IMPACT OF MACRO ECONOMIC FACTOR IN RELATION TO CROSS CURRENCY RATES.

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Abstract:

Purpose

In this study, empirical analyses are performed to study the effects of oil price changes on inflation in two groups of countries, namely the high versus low oil dependency groups. In addition, we also compare the relative effect of oil price such as real exchange rate. Our results reveal that oil price change has its direct effect on domestic inflation in low oil dependency group but its impact is indirect on affecting the domestic inflation in the high oil dependency group through changes in the exchange rates. The gross domestic product (GDP), the consumer price index (CPI) and the oil price have been selected to test the correlation, association, and the significant of it with the exchange rate. The data were taken on a quarterly basis after verification with Kuwait central bank data.

Objectives

The exchange of products with international partners is facilitated through the exchange rate of the currency. The fluctuation in the currency exchange rate can be due to certain uncontrolled factors, creating a risk due to the unpredicted exchange rate volatility. The economic situation locally and at the international level can impact the exchange rates. There are certain macroeconomic factors that impact the exchange rate. This study covers three important macroeconomic factors which can affect the exchange rate. These are the oil prices, CPI, and GDP.

Research Methodology

Secondary data were obtained from <https://www.boursakuwait.com.kw/en/data-and-research/economic-indicators/economic-indicators>; :  
<https://www.indexmundi.com/commodities/?commodity=crude-oil&months=120&currency=kwd>; and <https://www.exchangerates.org.uk/KWD-USD-spot-exchange-rates-history-2020.html>.

Data were verified by direct comparison with other data published by Kuwait Central Bank. Data at the end of each quarter were selected for analysis. The analysis includes quarter one 2016 to

quarter four 2020. The GDP of quarter four 2020 is an estimate based on previous two quarters for the lack of published data by the central bank of Kuwait specific to that quarter. The Excel's regression analysis was used to analyse the secondary data.

#### Findings/Conclusion

The result of the research revealed that there is a significant impact of Hypothesis to be tested at 5% significance level.

Showing Quarterly KWD/USD Exchange Rate (Y) and Oil Price in Kuwait(X)

Regression Analysis KWD/USD vs. Oil Prices

Showing Quarterly KWD/USD Exchange Rate and Consumer Price Index (CPI) in Kuwait (X1)

Regression Analysis KWD/USD (Y) vs. CPI of Kuwait (X1)

Foreign Exchange study on the Impact of Macro Economic Factor in relation to Cross Currency Rates.

The extent for the international trade is affected by the currency exchange rate. There are several macroeconomic factors that determine the KWD to USD exchange rate. This study tests the association and its significance between specific macroeconomic factors and the KWD to USD exchange rate. The gross domestic product (GDP), the consumer price index (CPI) and the oil price have been selected to test the correlation, association, and the significant of it with the exchange rate. The data were taken on a quarterly basis after verification with Kuwait central bank data. Analysis was done using Excel's regression analysis. Results show significant between both associations between the exchange rate and oil prices and CPI but not with GDP. The overall association between the exchange rate and the collectively all variables is significant. Therefore, these variables must be considered by policy makers because they can impact the exchange rate and consequently the trade balance.

#### Introduction:

The exchange rate is the number of units which can be exchanged for a unit of domestic currency. The exchange of products with international partners is facilitated through the exchange rate of the currency. The fluctuation in the currency exchange rate can be due to certain uncontrolled factors, creating a risk due to the unpredicted exchange rate volatility. The economic situation locally and at the international level can impact the exchange rates. There are certain macroeconomic factors that impact the exchange rate. This study covers three important macroeconomic factors which can affect the exchange rate. These are the oil prices, CPI, and GDP.

Fixed exchange rate system:

This exchange rate is maintained within a narrow limit beyond which the government intervenes to control exchange rates. This fixed exchange rate was followed by governments as recommended by Bretton Woods Conference between 1944 and 1971. In contrast, the freely floating exchange rate system has exchange rates changing without interference by the government to maintain the rates. The third system is the managed float exchange rate system in which the supply and demand of currency determines the policy to be followed to benefit from these fluctuations.

The relationship between the exchange rate and the CPI is negatively correlated, whereas GDP and oil prices have positive correlation with exchange rate (Kashif 2000), (Chit et al 2010).

Methodology:

Secondary data were obtained from <https://www.boursakuwait.com.kw/en/data-and-research/economic-indicators/economic-indicators>; <https://www.indexmundi.com/commodities/?commodity=crude-oil&months=120&currency=kwd>; and <https://www.exchangerates.org.uk/KWD-USD-spot-exchange-rates-history-2020.html>.

Data were verified by direct comparison with other data published by Kuwait Central Bank. Data at the end of each quarter were selected for analysis. The analysis includes quarter one 2016 to quarter four 2020. The GDP of quarter four 2020 is an estimate based on previous two quarters for the lack of published data by the central bank of Kuwait specific to that quarter. The Excel's regression analysis was used to analyse the secondary data.

Results and Analysis:

Table 1: Showing Quarterly KWD/USD Exchange Rate (Y) and Oil Price in Kuwait(X)

Regression Analysis of KWD/USE vs. Oil Price

Quarter	1KWD=USD (Y)	Oil Prices (KWD per barrel) (X)
Mar-16	3.3109	11.24
Jun-16	3.3127	14.37
Sep-16	3.3136	13.58
Dec-16	3.2693	16.08
Mar-17	3.2762	15.53
Jun-17	3.2862	14.00
Sep-17	3.3081	15.97
Dec-17	3.313	18.47

Mar-183.3341 19.23  
 Jun-18 3.2989 21.76  
 Sep-183.2945 22.81  
 Dec-183.2929 16.39  
 Mar-193.285 19.36  
 Jun-19 3.2938 18.13  
 Sep-19 3.2835 18.24  
 Dec-193.2954 19.22  
 Mar-203.1847 9.89  
 Jun-20 3.2454 12.91  
 Sep-20 3.2626 12.42  
 Dec-203.283 14.82

Source

1. Exchange Rate: <https://www.exchangerates.org.uk/KWD-USD-spot-exchange-rates-history-2020.html>
2. Oil Prices: <https://www.indexmundi.com/commodities/?commodity=crude-oil&months=120&currency=kwd>

Hypothesis -1

H<sub>0</sub> = There is no association between dependent variable (Y)– KWD/USD exchange rate and independent variable (X) – oil prices in Kuwait

H<sub>1</sub> = There is an association between dependent variable (Y)– KWD/USD exchange rate and independent variable (X) – oil prices in Kuwait

Hypothesis to be tested at 5% significance level. (this means 95% confidence level i.e., we are true about our results in 95% the cases and there is a chance of 5% of our results being out of range or due to randomness)

Table 2: Regression Analysis KWD/USD vs. Oil Prices

(KWE/USE is dependent variable (Y) and Oil Prices is independent variable (X))

Regression Statistics

Multiple R 0.4847792

R Square 0.2350109

Adjusted R Square 0.1925115

Standard Error 0.0283277

Observations 20

ANOVA

	df	SS	MS	F	Significance F
Regression	1	0.004437396	0.004437	5.529748	0.030285
Residual	18	0.014444262	0.000802		
Total	19	0.018881658			

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%	Lower 95.0%	Upper 95.0%
Intercept	3.2148256	0.031418325	102.3233	2.4E-26	3.148818			
	3.280833	3.14881815	3.2808331					
Oil Prices (KWD per barrel) (X)		0.0044612	0.001897119	2.351542	0.030285			
	0.000475	0.008447	0.00047546	0.0084469				

Interpretation

R square = 0.2350 indicates that about 23.50% of the variation in the dependent variable (Y) are explained by the independent variable (X) . Further significance F value = 0.030285 is less than the 0.05 (5%) this shows that the association between dependent variable (Y) and independent variable (X) is statistically significant.

The regression equation is as follows.

$$Y = 3.2148256 + 0.0044612X$$

Here the intercept value = 3.2148256 shows that when value of independent variable (X) is zero then the value of dependent variable = 3.2148256. The slope of the curve i.e., regression coefficient of X = 0.0044612, this shows a positive association between these two variables. A one unit increase in the independent variable (X) will lead to 0.0044612 increase in the dependent variable (Y).

The P-value of independent variable (X) is less than the significance level (0.05) which is the strong evidence that the null hypothesis is invalid, hence null hypothesis is rejected and we accept the alternate hypothesis - There is an association between dependent variable (Y) – KWD/USD exchange rate and independent variable (X) – oil prices in Kuwait.

Table 3: Showing Quarterly KWD/USD Exchange Rate and Consumer Price Index (CPI) in Kuwait (X1)

Quarter	1KWD=USD(Y)	CPI (X1) Base 2010=100
Mar-16	3.3109	110.10
Jun-16	3.3127	110.80

Sep-16 3.3136 112.20  
 Dec-16 3.2693 111.80  
 Mar-17 3.2762 111.70  
 Jun-17 3.2862 112.30  
 Sep-17 3.3081 112.80  
 Dec-17 3.313 113.00  
 Mar-18 3.3341 112.40  
 Jun-18 3.2989 112.90  
 Sep-18 3.2945 113.20  
 Dec-18 3.2929 113.50  
 Mar-19 3.285 113.30  
 Jun-19 3.2938 114.10  
 Sep-19 3.2835 115.00  
 Dec-19 3.2954 115.20  
 Mar-20 3.1847 115.50  
 Jun-20 3.2454 116.10  
 Sep-20 3.2626 117.30  
 Dec-20 3.283 118.60

#### Source

1. Exchange Rate: <https://www.exchangerates.org.uk/KWD-USD-spot-exchange-rates-history-2020.html>
2. CPI of Kuwait: <https://www.boursakuwait.com.kw/en/data-and-research/economic-indicators/economic-indicators>

#### Hypothesis -2

$H_0$  = There is no association between dependent variable (Y) – KWD/USD exchange rate and independent variable (X1)– Consumer price index (CPI) of Kuwait

$H_1$  = There is an association between dependent variable (Y) – KWD/USD exchange rate and independent variable (X1)– Consumer price index (CPI) of Kuwait

Hypothesis to be tested at 5% significance level.

Table 4 : Regression Analysis KWD/USD (Y) vs. CPI of Kuwait (X1)

#### Regression Statistics

Multiple R 0.49627344  
 R Square 0.24628732  
 Adjusted R Square 0.2044144  
 Standard Error 0.02811815  
 Observations 20

ANOVA

	df	SS	MS	F	Significance F
Regression	1	0.00465031	0.00465	5.88178	0.02604005
Residual	18	0.01423134	0.000791		
Total	19	0.01888166			

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%	Lower 95.0%	Upper 95.0%
Intercept	4.11718811	0.34229142	12.02831	4.86E-10	3.39806053			
	4.83631569	3.39806053	4.83631569					
CPI (X1)	-0.007307	0.00301289	-2.42524	0.02604	-0.0136368	-		
	0.0009771	-0.0136368	-0.0009771					

Interpretation

R square = 0.24628732 indicates that about 24.63 % of the variation in the dependent variable (Y) are explained by the independent variable (X1). Further significance F value = 0.02604005 is less than the 0.05 (5%) this shows that the association between dependent variable (Y) and independent variable (X1) is statistically significant.

The regression equation is as follows

$$Y = 4.11718811 - 0.007307X1$$

Here the intercept value = 4.11718811 shows that when value of independent variable (X1) is zero then the value of dependent variable = 4.11718811. The slope of the curve i.e., regression coefficient of X1 = -0.007307, this shows a negative association between these two variables. A one unit increase in the independent variable (X1) will lead to -0.007307 decrease in the dependent variable (Y).

The P-value of the independent variable (X1) is less than the significance level (0.05) which is the strong evidence that the null hypothesis is invalid, hence null hypothesis is rejected and we accept the alternate hypothesis - There is an association between dependent variable (Y) – KWD/USD exchange rate and CPI of Kuwait (X1).

Table 5: Showing Quarterly KWD/USD Exchange Rate and GDP at Market Value of Kuwait (X2)

Quarter	1KWD=USD (Y)	GDP at Market Value (Million KWD) (X2)
Mar-16	3.3109	10281.30
Jun-16	3.3127	10101.20
Sep-16	3.3136	10141.00
Dec-16	3.2693	10419.40
Mar-17	3.2762	9885.90
Jun-17	3.2862	9885.30
Sep-17	3.3081	9839.90
Dec-17	3.313	10158.20
Mar-18	3.3341	9747.70
Jun-18	3.2989	9673.90
Sep-18	3.2945	9731.60
Dec-18	3.2929	10109.70
Mar-19	3.285	9845.20
Jun-19	3.2938	9845.10
Sep-19	3.2835	9742.90
Dec-19	3.2954	9997.50
Mar-20	3.1847	9744.40
Jun-20	3.2454	8522.90
Sep-20	3.2626	8622.20
Dec-20	3.283	8600.00

Source

1. Exchange Rate: <https://www.exchangerates.org.uk/KWD-USD-spot-exchange-rates-history-2020.html>
2. GDP of Kuwait: <https://www.boursakuwait.com.kw/en/data-and-research/economic-indicators/economic-indicators>

Hypothesis -3

H0 = There is no association between dependent variable (Y) – KWD/USD exchange rate and independent variable (X2) – GDP at market value of Kuwait.

H1 = There is an association between dependent variable (Y) – KWD/USD exchange rate and

independent variable (X2) – GDP at market value of Kuwait.

Hypothesis to be tested at 5% significance level.

Table 6 : Regression Analysis KWD/USD (Y) vs. GDP at Market Value of Kuwait (X2)

Regression Statistics

Multiple R 0.366629

R Square 0.134417

Adjusted R Square 0.086329

Standard Error 0.030133

Observations 20

ANOVA

	df	SS	MS	F	Significance F			
Regression	1	0.002538007	0.002538	2.795222	0.11183857			
Residual	18	0.016343651	0.000908					
Total	19	0.018881658						

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%	Lower 95.0%	Upper 95.0%
Intercept	3.078477	0.125017992	24.62427	2.59E-15	2.81582417			
	3.34113	2.815824	3.34113					
GDP at Market Value (Million KWD) (X2)	2.14E-05	1.28106E-05	1.671892	0.111839	-5.496E-06	4.83E-05	-5.5E-06	4.83E-05

Interpretation

R square = 0.134417 indicates that about 13.44 % of the variation in the dependent variable (Y) are explained by the independent variable (X2) . Further significance F value = 0.11183857 is more than the 0.05 (5%) this shows that the association between dependent variable (Y) and independent variable (X1) is statistically not significant.

The regression equation is as follows.

$$Y = 3.078477 + 2.14E-05 X2$$

Or

$$Y = 3.078477 + 0.0000214X2$$

Here the intercept value = 3.078477 shows that when value of independent variable (X2) is zero

then the value of dependent variable (Y) = 3.078477. The slope of the curve i.e., regression coefficient of X2 = + 0.0000214, this shows a positive association between these two variables. A one unit increase in the independent variable (X2) will lead to + 0.0000214 increase in the dependent variable (Y).

The P-value of the independent variable (X2) is more than the significance level (0.05) which is the strong evidence that the null hypothesis is valid, hence null hypothesis is accepted and we reject the alternate hypothesis - There is a no association between dependent variable (Y) – KWD/USD exchange rate and GDP of Kuwait (X2).

Disclosure Note:

The GDP of the 2020, quarter 4 was not published by the central bank of Kuwait. Data accessed on April 17th, 2021. Therefore, the value of GDP for quarter four was estimated using data from quarter two and three of the same year.

Table 7: Showing Quarterly KWD/USD Exchange Rate and Oil Price in Kuwait(X), CPI of Kuwait (X1), GDP at Market Value of Kuwait (X2)

Quarter	1KWD=USD (Y)	Oil Prices (KWD per barrel) (X)	CPI (2010=100) (X1)	GDP at Market Value (Million KD) (X2)
Mar-16	3.3109	11.24	110.10	10281.30
Jun-16	3.3127	14.37	110.80	10101.20
Sep-16	3.3136	13.58	112.20	10141.00
Dec-16	3.2693	16.08	111.80	10419.40
Mar-17	3.2762	15.53	111.70	9885.90
Jun-17	3.2862	14.00	112.30	9885.30
Sep-17	3.3081	15.97	112.80	9839.90
Dec-17	3.313	18.47	113.00	10158.20
Mar-18	3.3341	19.23	112.40	9747.70
Jun-18	3.2989	21.76	112.90	9673.90
Sep-18	3.2945	22.81	113.20	9731.60
Dec-18	3.2929	16.39	113.50	10109.70
Mar-19	3.285	19.36	113.30	9845.20
Jun-19	3.2938	18.13	114.10	9845.10
Sep-19	3.2835	18.24	115.00	9742.90
Dec-19	3.2954	19.22	115.20	9997.50
Mar-20	3.1847	9.89	115.50	9744.40

Jun-20 3.2454 12.91 116.10 8522.90  
 Sep-20 3.2626 12.42 117.30 8622.20  
 Dec-20 3.283 14.82 118.60 8,600.00

Hypothesis -4

H0 = There is no association between dependent variable (Y) – KWD/USD exchange rate and three independent variables Oil Price in Kuwait(X), CPI of Kuwait (X1), GDP at Market Value of Kuwait (X2)

H1 = There is an association between dependent variable (Y) – KWD/USD exchange rate and three independent variables Oil Price in Kuwait(X), CPI of Kuwait (X1), GDP at Market Value of Kuwait (X2)

Hypothesis to be tested at 5% significance level.

Table 8: Regression Analysis between dependent variable (Y) - KWD/USD Exchange Rate and three independent variables - Oil Price in Kuwait(X), CPI of Kuwait (X1), GDP at Market Value of Kuwait (X2)

Regression Statistics

Multiple R 0.678198603  
 R Square 0.459953345  
 Adjusted R Square 0.358694597  
 Standard Error 0.02524502  
 Observations 20

ANOVA

	df	SS	MS	F	Significance F			
Regression	3	0.00868468	0.002895	4.542357	0.017395525			
Residual	16	0.01019698	0.000637					
Total	19	0.01888166						
	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%	Lower 95.0%	Upper 95.0%
Intercept	4.487825637	0.69005606	6.503567	7.28E-06	3.024972139			
	5.950679	3.02497214	5.950679135					
Oil Prices (KWD per barrel) (X)	0.004311301	0.00173154	2.489868	0.024162				

	0.000640604	0.007982	0.0006406	0.007981998		
CPI (2010=100) (X1)	-0.009836319	0.00470386	-2.09112	0.052828	-0.01980805	
	0.000135	-0.019808	0.000135409			
GDP at Market Value (Million KD) (X2)	-1.57276E-05	1.8923E-05	-0.83115			
	0.41812	-5.5842E-05	2.44E-05	-5.584E-05	2.43867E-05	

Interpretation

R square = 0.459953345 indicates that about 45.99 % of the variation in the dependent variable (Y) is explained by these three independent variables (X, X1 and X2) collectively. Further significance F value = 0.017395525 is less than the 0.05 (5%) this shows that the association between dependent variable (Y) and these three-independent variable (X, X1 and X2) are statistically significant.

The regression equation is as follows.

$$Y = 4.487825637 + 0.004311301X - 0.009836319X1 - 1.57276E-05X2$$

Or

$$Y = 4.487825637 + 0.004311301X - 0.009836319X1 - 0.0000157X2$$

Here the intercept value = 4.487825637 shows that when value of these three independent variables (X, X1 and X2) is zero then the value of dependent variable (Y) = 4.487825637. The regression coefficient of X = +0.004311301 this shows a positive association between Y and X. Whereas regression coefficient of X1 = -0.009836319 and X2 = -0.0000157, this shows that both of these independent variables have negative association with the dependent variable (Y).

The P-value of the independent variable X = 0.024162 is less than the significance level (0.05), this is the strong evidence that null hypothesis is not valid, and we reject the null hypothesis. whereas P-value of X1 = 0.052828 and of X2 = 0.41812 is more than the significance level (0.05) which is the strong evidence that the null hypothesis is valid, hence null hypothesis is accepted and we reject the alternate hypothesis - There is a no association between dependent variable (Y) – KWD/USD exchange rate and independent variable X1 – CPI of Kuwait and X2 - GDP of Kuwait. Whereas there is an association between Y and X.

Autoregression of Oil Prices, CPI, and GDP

Table 9: Autoregression of oil prices (X) and the oil prices X(t-1), X(t-2) and X(t-3)

Regression Statistics

Multiple R 0.531514

R Square 0.282507  
 Adjusted R Square 0.116932  
 Standard Error 3.173487  
 Observations 17

ANOVA

	Df	SS	MS	F	Significance F
Regression	3	51.54996	17.18332	1.706214	0.214783
Residual	13	130.9233	10.07102		
Total	16	182.4732			

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%
Intercept	8.100764	4.931595	1.642625	0.124416	-2.5533	18.75483
Lag 1	0.4605	0.274013	1.680576	0.1167	-0.13147	1.05247
Lag 2	0.175031	0.301196	0.58112	0.571098	-0.47566	0.825725
Lag 3	-0.11717	0.268022	-0.43718	0.669157	-0.6962	0.461853

Interpretation

R square = 0.282507 indicates that about 28.25 % of the variation in the dependent variable (X) is explained by these three independent variables X(t-1), X(t-2), and X(t-3) collectively. Further significance F value = 0.214783 is more than the 0.05 (5%) this shows that the association between dependent variable (X) and these three-independent variable X(t-1), X(t-2), and X(t-3) are statistically insignificant.

The regression equation is as follows.

$$X = 8.100764 + 0.4605X(t-1) + 0.175031X(t-2) - 0.11717X(t-3)$$

Here the intercept value = 8.100764 shows that when values of these three independent variables (X(t-1), X(t-2) and X(t-3)) are zero then the value of dependent variable (X) = 8.100764. Positive

associations from regression coefficients of  $X(t-1) = 0.4605$ ;  $X(t-2) = 0.175031$ , whereas the regression coefficient of  $X(t-2) = -0.11717$ , showing negative associations.

The P-value of the independent variables of  $X(t-1)$ ,  $X(t-2)$ , and  $X(t-3) = 0.1167$ ,  $0.571098$ ,  $0.669157$ , respectively. These p-values show insignificant associations between the dependent variable and each of the independent variables.

Table 10: Autoregression of the dependent variable of CPI and the  $X1(t-1)$ ,  $X1(t-2)$ , and  $X1(t-3)$

Regression Statistics

Multiple R	0.984562
R Square	0.969363
Adjusted R Square	0.962293
Standard Error	0.381452
Observations	17

ANOVA

	Df	SS	MS	F	Significance F
Regression	3	59.8496	19.94987	137.107	4.34E-10
Residual	13	1.891575	0.145506		
Total	16	61.74118			

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%	Lower 95.0%	Upper 95.0%
Intercept	-26.6086	7.504231	-3.54581	0.003585	-42.8205	-	10.3967	-42.8205
Lag 1	1.004133	0.181106	5.544433	9.47E-05	0.612876	1.395389	0.612876	1.395389
Lag 2	-0.23619	0.268261	-0.88043	0.39461	-0.81573	0.343357	-0.81573	0.343357
Lag 3	0.47172	0.195384	2.414321	0.031236	0.049618	0.893822	0.049618	0.893822

Interpretation

R square = 0.969363 indicates that about 96.93 % of the variation in the dependent variable ( $X1$ ) is explained by these three independent variables  $X1(t-1)$ ,  $X1(t-2)$ , and  $X1(t-3)$  collectively.

Further significance F value = 4.34E-10 is less than the 0.05 (5%) this shows that the association between dependent variable (X1) and these three-independent variable X1(t-1), X1(t-2), and X1(t-3) are statistically significant.

The regression equation is as follows.

$$X1 = -26.6086 + 1.004133X1(t-1) - 0.23619X1(t-2) + 0.47172X1(t-3)$$

Here the intercept value = -26.6086 shows that when values of these three independent variables (X1(t-1), X1(t-2) and X1(t-3)) are zero then the value of dependent variable (X1) = -26.6086. Positive associations from regression coefficients of X1(t-1) = 1.004133; X1(t-3) = 0.47172, whereas the regression coefficient of X1(t-2) = -0.23619, showing negative associations.

The P-value of the independent variables of X1(t-1), X1(t-2), and X1(t-3) = 9.47E-05, 0.39461, 0.031236, respectively. These p-values X(t-1) and X1(t-3) show significant associations with the dependent variable X1, whereas the p value of X1(t-2) shows insignificant association with the dependent variable.

Table 11: Autoregression of GDP (X2) and the X2(t-1), X2(t-2), and X2(t-3)

Regression Statistics

Multiple R	0.752629168
R Square	0.566450664
Adjusted R Square	0.466400817
Standard Error	402.7176247
Observations	17

ANOVA

	Df	SS	MS	F	Significance F
Regression	3	2754661.188	918220.3959	5.661684468	0.010492
Residual	13	2108359.308	162181.4852		
Total	16	4863020.495			

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%	Lower 95.0%	Upper 95.0%
Intercept	-2311.83309	4779.140493	-0.48373407	0.636620963	-12636.5			

	8012.872	-12636.5	8012.872			
Lag 1	0.816151828	0.268218741	3.042859066	0.009428641	0.2367	1.395603
	0.2367	1.395603				
Lag 2	-0.04813011	0.344561676	-0.13968503	0.891049773	-0.79251	0.69625
	-0.79251	0.69625				
Lag 3	0.451193749	0.492314125	0.916475328	0.376106151	-0.61239	1.514774
	-0.61239	1.514774				

Interpretation

R square = 0.566450664 indicates that about 56.64 % of the variation in the dependent variable (X2) is explained by these three independent variables X2(t-1), X2(t-2), and X2(t-3) collectively. Further significance F value = 0.010492 is less than the 0.05 (5%) this shows that the association between dependent variable (X2) and these three-independent variable X2(t-1), X2(t-2), and X2(t-3) are statistically significant.

The regression equation is as follows.

$$X1 = -2311.83309 + 0.816151828X2(t-1) - 0.04813011X2(t-2) + 0.451193749X2(t-3)$$

Here the intercept value = -2311.83309 shows that when values of these three independent variables (X2(t-1), X2(t-2) and X2(t-3)) are zero then the value of dependent variable (X1) = -2311.83309. Positive associations from regression coefficients of X2(t-1) = 0.816151828; X2(t-3) = 0.451193749, whereas the regression coefficient of X2(t-2) = -0.04813011, showing negative associations.

The P-value of the independent variables of X2(t-1), X2(t-2), and X2(t-3) = 0.009428641, 0.891049773, 0.376106151, respectively. The p-value X2(t-1) show significant association between X2(t-2) and the dependent variable X2, whereas the independent variables X2(t-2), and X2(t-3) show insignificant associations between the dependent variable X2 and the independent variables X2(t-2) and X2(t-3).

Conclusion

The regression analysis leads to the following conclusion:

1. Dependent variable (Y) – KWD/USD exchange rate has a positive association with the independent variable(X) – Oil prices in Kuwait Regression coefficient of X is positive and it is statistically significant at 5% significance level.
2. There is a negative association between dependent variable (Y) – KWD/USD exchange

rate and independent variable (X1) – CPI of Kuwait. And regression coefficient of X1 is negative and it is statistically significant at 5% significance level.

3. Dependent variable (Y) – KWD/USD exchange rate has a very low positive association with the independent variable(X2) – GDP of Kuwait. Regression coefficient of X2 is positive and it is statistically not significant at 5% significance level.

4. Result of hypothesis of association between the dependent variable – KWD/USD exchange rate and independent variables when considered individually show that the independent variable X – Oil Price in Kuwait, and X1 – CPI of Kuwait have significant association with the KWD/USD exchange rate. Whereas, independent variable GDP of Kuwait has no association with the KWD/USD exchange rate.

5. Result of multiple regression analysis show that all these three independent variables collectively explain about 45.99 % of the variation in the dependent variable ( KWD/USE exchange rate) but the interpretation of P-value of ANOVA strongly support that the association of independent variable X1 – CPI of Kuwait and X2 – GDP of Kuwait is not significant statistically, whereas association of independent variable X – Oil Prices in Kuwait has low P-value indicating statistically significant association between KWD/USD exchange rate and Oil price in Kuwait.

6. Result of autoregression analysis show significant associations between the dependent variables and the independent variables of each of CPI and GDP, but not the oil prices.

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**A COMPARATIVE STUDY OF BALANCE SHEET AND INCOME STATEMENT PREPARED UNDER IND AS AND IFRS WITH SPECIAL REFERENCE TO INFOSYS LTD.**

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**Purpose**

The wave of globalization has brought drastic changes in the business environment across the world. India followed accounting standards from Indian Generally Acceptable Accounting Principle (IGAAP) prior to adoption of the Ind AS.

Since the companies were operating globally, it was becoming quite difficult to prepare set of accounts as per the need of every country. Hence a new set of accounting method known as International Financial Reporting Standards (IFRS) was developed by the International Accounting Standards Board (IASB) to bring consistency and integrity in accounting standards and practices, regardless of the company or the country.

As Indian Companies are also operating globally, they took the step of convergence of IFRS i.e. local standards instead of direct adoption of IFRS. The converged form of IFRS or the Indian version of IFRS is termed as Indian Accounting Standards (or Ind AS). India implemented Indian Accounting Standards from 1st April 2016. Various studies reveal that European countries that have adopted International Financial Reporting Standards in phases are still facing difficulties. Therefore, it is important to have an understanding of Indian Accounting Standards and International Financial Reporting Standards.

**Objective**

The objective of the study is to explore Liquidity Ratio, Profitability Ratio, Activity Ratio, Leverage Ratio and Cash Flow Statement of Infosys Ltd and to identify differences in the Accounting Ratios and Cash Flow Statement of Infosys Ltd., on IndAS and IFRS by considering Income Statement and Balance Sheet Items.

**Research Methodology**

The study is based on secondary data. The data has been collected from the annual reports of Infosys Ltd. The Study period is 6 financial years starting from 1<sup>st</sup> April 2016 to 31<sup>st</sup> March 2022.

**Findings/Conclusion**

The result of the research revealed that there is no significant difference in Accounting Ratios and Cash Flow Statement of Infosys Ltd., on IndAS and IFRS by considering Income Statement and Balance Sheet Items.

**Importance of the Study**

The study will be beneficial to national and international authorities, regulatory bodies, policy makers, professionals, and academicians.

**Keywords:** Indian Accounting Standards (Ind AS), International Financial Reporting Standards (IFRS), Convergence, India, Ratio Analysis, Infosys Ltd.

**INTRODUCTION**

Globalization has brought sensational changes in the business climate across the world. The International Accounting Standards Board (IASB), which operates under the purview of the IFRS Foundation has achieved a landmark achievement by developing International Financial Reporting Standards (IFRS). “International Financial Reporting Standards (IFRS) is a set of globally acclaimed principle-based standards of financial reporting issued by the International Accounting Standards Board (IASB)”. (T.P. Ghosh)

The objective of the IASB and the IFRS Foundation is to develop a global financial reporting standard so that companies get relieved from the burden of preparing two sets of financial statements when operating in different countries. IFRS is developed with the motive to bring transparency, accountability, and efficiency to financial markets around the world. Having a common standard throughout the world will help to build public interest by fostering trust, growth, and long-term financial stability in the global economy. These standards follow a principal-based approach, due to which they give more scope/discretion to management in selecting a particular accounting policy. Therefore, International Financial Reporting Standards (IFRS) have gained momentum across the world.

The Government of India along with ICAI recognized the need for a global standard. They decided not to follow IFRS the way they are, but to prepare their own Financial Reporting Standards. Hence the Accounting Standard Board (ASB) of the ICAI formulated Indian Accounting Standards, popularly known as Ind AS. At present, there are 41 Ind AS in India.

Ind AS was introduced to enhance the acceptability and transparency of the financial information communicated by Indian corporate through their financial statements throughout the globe. This move towards IFRS was subsequently accepted by the Government of India and was announced by the Hon'ble Finance Minister of India, Arun Jaitely, in his Budget Speech in July 2014.

Ind AS or Indian Accounting Standards govern the accounting and recording of financial transactions as well as the presentation of statements such as profit and loss accounts and the balance sheet of a company. Ind AS is framed keeping in mind the economic environment and disclosure requirement of Indian government.

Ind AS has evolved as a compromise formula that tries to harmonize Indian accounting rules with the IFRS. The IFRS, on the other hand, is made keeping global standards and the environment in mind.

### **Review of Literature**

**Vafaei and Taylor (2011)** have taken a sample of 150 randomly selected firms listed on three Stock Exchanges (i.e. London, Hong Kong, and Singapore) for the year of adoption of IFRSs

(2005). The major objective of the research was to investigate whether the quality of accounting figures (earnings per share and book value of equity) has improved after the adoption of IFRS in the UK, Hong Kong, and Singapore. The results indicate that there is no improvement in the value relevance of accounting figures as a result of the adoption of IFRS. Also, they came to the conclusion that the costs of transition incurred in the UK for the first-time adoption of IFRS are greater than the adjustments made and the costs incurred in Hong Kong and Singapore.

**Achalapathi and Bhanusireesha (2015)** analyzed the impact of IFRS on the financial ratios of 10 Indian companies for 6 years and found a statistically significant increase in liquidity, profitability, and valuation ratios from the adoption of IFRS. The stability ratios also increased under IFRS, but the increase was not statistically significant.

**Das, S., & Saha, T. R. (2017)** analyzed the beneficial factors of mandatory IFRS adoption in India from an investor's point of view. For this purpose, the researcher approached 91 share broking firms and after collecting data one sample t-test and chi-square test is applied. The survey revealed that IFRS brings several benefits for investors for their investing purpose.

**Ombati, R., & Shukla, A. (2018)** measured the relation between profitability and Market capitalization amongst IFRS-adopted selected companies and analyzed the challenges faced by Listed Firms of various Countries concerning the implementation of International Financial Reporting Standards. For the purpose of study, 15 companies were selected from 5 countries including India, China, Germany, Russia, and Kenya. The secondary data is collected from website of companies. The correlation between profitability and market capitalization were analyzed to calculate the correlations. The primary data regarding the managers' perceptions were analyzed with multiple regression methods using SPSS-19 software. After analysis, the researcher concluded that a high degree of positive correlation between profit and market capitalization in selected companies is seen because of IFRS adoption.

**Singh, R., & Srivastava, S. K. (2019).** identified the challenges, remedies, and benefits due to IFRS. They highlighted the main benefits of IFRS adoption. They also recommended to countries the various prerequisites that are necessary for effective application and conformance

with IFRS to store full benefits. This paper also reflects on the challenges faced in implementing the converged phase.

**Rao, N., Bedia, D. D., & Shrivastava, K. (2020)** highlighted to analyze the quantitative impact of IFRS and Ind AS on the accounting figures and financial ratios of selected listed Indian companies and the effect of IFRS and Ind AS on the relevance of financial reporting of these companies. The researcher selected 10 listed companies. The research revealed that there is a significant positive quantitative impact of IFRS and Ind AS on some of the selected accounting figures and ratios.

### **Research Problem**

There is a huge disparity between financial reporting in India and at the International level. India takes it slowly when it comes to either changing the law or adopting a new one.

Many countries are replacing their national standards with IFRSs while some other countries have adopted this approach of first reviewing the IFRSs, ensuring their suitability with their economic, political, and social conditions, and then adopting these IFRSs with minor changes. India also adopted the Second approach of convergence, in place of converting full at a stretch.

Past Literature showed that researchers have studied about need and significance of IFRS. But it is important to find out why Indian companies are not able to adopt IFRS. Accounts prepared under Ind AS are seen with doubts and foreigners are not able to rely on the quantum of profits shown by Indian companies. They are not getting adequate information which is required to make investment decisions. The problem does not end here fully, as global investors have a feeling that India may not in reality change over to IFRS.

Many companies are preparing two sets of accounts i.e., one on IndAS and the other one on an IFRS basis. Hence, it becomes essential to study and compare the accounting Ratios considering Balance sheet and Income Statement prepared under Ind AS and IFRS of a company to find out what is more beneficial, convergence or adoption in full. For this, Infosys Ltd., an IT sector company is selected, as they are preparing their accounts on both sets since 2009.

Hence, we need an answer to the following question→

1. Whether there is any significant difference in the Balance Sheet and Income Statement prepared under Ind AS and IFRS of Infosys Ltd.?

### Objective

On the basis of above question, following objective can be drawn:

1. To explore Liquidity Ratio, Profitability Ratio, Activity Ratio, Leverage Ratio and Cash Flow Statement of Infosys Ltd.
2. To identify differences in the Balance Sheet and Income Statement prepared under Ind AS and IFRS of Infosys Ltd.

### Hypothesis

Based on the extensive literature review and the objectives mentioned above, the following hypothesis were formulated:

#### Hypothesis 1:

**H<sub>01</sub>:** There is no significant difference in the Balance Sheet and Income Statement prepared under Ind AS and IFRS of Infosys Ltd.

**H<sub>a1</sub>:** There is a significant difference in the Balance Sheet and Income Statement prepared under Ind AS and IFRS of Infosys Ltd.

### Research Methodology

Research Design is briefly described as under:

- Population: Indian IT Company-Infosys Ltd.
- Period of the Study: The Study period is 6 financial years starting from 1<sup>st</sup> April 2016 to 31<sup>st</sup> March 2022.
- Areas of Study: The Quantitative areas that are considered for study are:

AREA	RATIO
<b>Liquidity Ratio</b>	Current Ratio
<b>Profitability</b>	Gross Profit Ratio
	Operating Profit Ratio
	Net Profit Ratio
	Return on Capital employed
<b>Activity Ratio</b>	Working Capital Turnover Ratio
	Asset Turnover Ratio
<b>Leverage Ratio</b>	Debt Ratio
	Proprietary Ratio
<b>Cash Flow Statement</b>	Cash Flow Position

- Sources of Data: The study is based on secondary data. Financial data is manually collected from their annual reports of the Financial Year 2016-17 to 2021-22. The comprehensive consolidated Income Statement and comprehensive consolidated Balance Sheet is attached here in the Annexure 1.
- Statistical Tools for Data Analysis: Statistical tools used for the study is Independent Samples T-test.

## RESULT ANALYSIS AND INTERPRETATION

**Table 1: Liquidity Ratios**

Quantitative Area	31-03-2017		31-03-2018		31-03-2019		31-03-2020		31-03-2021		31-03-2022	
	Ind	IFRS										
	AS		AS		AS		AS		AS		AS	
<b>Current Ratio</b>	3.74	3.74	3.34	3.34	2.68	2.68	2.03	2.03	1.92	1.92	1.59	1.59

Source: Annual Report of Infosys.

It can be observed from the table 1 that there are no differences in Current Ratio of the company under Ind AS and IFRS. When considering 3 or 4 decimal places slight differences have been found in the current ratios of the company.

**Table 2: Profitability Ratios**

Quantitative Area	31-03-2017		31-03-2018		31-03-2019		31-03-2020		31-03-2021		31-03-2022	
	Ind	IFRS										
	AS		AS		AS		AS		AS		AS	
<b>Gross Profit Ratio</b>	36.84	36.85	36.01	36	34.84	34.85	33.11	33.08	34.89	34.90	32.59	32.59
<b>Operating Profit Ratio</b>	24.68	24.69	24.32	24.31	22.84	22.85	21.34	21.31	24.51	24.52	23.03	23.02
<b>Net Profit Ratio</b>	20.96	20.96	22.73	22.73	18.64	18.65	18.33	18.29	19.33	19.34	18.21	18.20
<b>Return on Capital employed</b>	0.29	0.28	0.31	0.31	0.32	0.31	0.31	0.33	0.32	0.31	0.36	0.37

Source: Annual Report of Infosys.

It is seen from the table 2 that there are very little differences in Gross Profit Ratio, Operating Profit Ratio, Net Profit Ratio and Return on Capital Employed of the company under Ind AS and IFRS. If someone considers only one or two decimal points, then they will not get any much difference between Ind AS and IFRS. But taking 3 and 4 decimal points there are differences.

**Table 3: Activity Ratio**

Items Considered	31-03-2017		31-03-2018		31-03-2019		31-03-2020		31-03-2021		31-03-2022	
	Ind AS	IFRS										
<b>Working Capital Turnover Ratio</b>	1.73	1.67	1.96	1.99	2.41	2.38	2.69	2.87	2.73	2.69	3.62	3.68
<b>Asset Turnover Ratio</b>	0.52	0.50	0.56	0.57	0.64	0.63	0.65	0.70	0.60	0.60	0.70	0.71

Source: Annual Report of Infosys.

It is found from the table 3 that there are differences in the Working Capital Turnover Ratio and Asset Turnover Ratio of the company under Ind AS and IFRS.

**Table 4 : Leverage Ratio**

Items Considered	31-03-2017		31-03-2018		31-03-2019		31-03-2020		31-03-2021		31-03-2022	
	Ind AS	IFRS										
<b>Debt Ratio</b>	0.17	0.17	0.19	0.19	0.23	0.23	0.29	0.29	0.29	0.29	0.36	0.36
<b>Proprietary Ratio</b>	0.83	0.83	0.81	0.81	0.77	0.77	0.71	0.71	0.71	0.71	0.64	0.64

Source: Annual Report of Infosys.

From the table 4, it can be interpreted that there are almost no differences between Ind AS and IFRS regarding the Debt Ratio and the Proprietary Ratio of the company for all 6 years.

**Table 5: Cash Flow Statement**

Items Considered	31-03-2017		31-03-2018		31-03-2019		31-03-2020		31-03-2021		31-03-2022	
	Ind AS	IFRS      Ind AS	IFRS									
Net cash provided by operating activities	11,531	13,610	13,218	14,689	14,841	15,705	17,003	19,679	23,224	23,851	23,885	25,364
Net cash (used) generated in investing activities	(14,542)	(16,514)	4,452	3137	(575)	(1,562)	(239)	(1,824)	(7,456)	(8,265)	(6,416)	(7,621)
Net cash (used) in financing activities	(6,939)	(6,691)	(20,505)	(20,807)	(14,512)	(14,393)	(17,591)	(18,940)	(9,786)	(9,641)	(24,642)	(25,213)

Source: Annual Report of Infosys.

It is found from the table 5 that there are differences in the Cash flow Statement of the company under Ind AS and IFRS.

### **Hypothesis Testing Results**

For analyzing the data collected from annual reports, Independent Samples T test is most suitable to be applied. For testing the validity of the hypothesis, independent samples t-test at 5% level of significance is used.

**Table 6: Liquidity Ratio**

		Levene's Test for Equality of Variances		t
		F	Sig.	
Current Ratio	Equal variances assumed	.000	1.000	.000
	Equal variances not assumed			.000

**Table 7: Profitability Ratio**

		Levene's Test for Equality of Variances		t
		F	Sig.	
Gross Profit Ratio	Equal variances assumed	.000	.987	.002
	Equal variances not assumed			.002
Operating Profit Ratio	Equal variances assumed	.000	.985	.004
	Equal variances not assumed			.004
Net Profit Ratio	Equal variances assumed	.000	.995	.005
	Equal variances not assumed			.005
Return on Capital Employed	Equal variances assumed	.357	.564	.000
	Equal variances not assumed			.000

**Table 8: Activity Ratio**

		Levene's Test for Equality of Variances		
		F	Sig.	t
Working Capital Turnover Ratio	Equal variances assumed	.035	.855	-.059
	Equal variances not assumed			-.059
Asset Turnover Ratio	Equal variances assumed	.209	.657	-.158
	Equal variances not assumed			-.158

**Table 9: Leverage Ratio**

		Levene's Test for Equality of Variances		
		F	Sig.	t
Debt Ratio	Equal variances assumed	.000	1.000	.000
	Equal variances not assumed			.000
Proprietary Ratio	Equal variances assumed	.000	1.000	.000
	Equal variances not assumed			.000

**Table 10: Cash Flow Statement**

		Levene's Test for Equality of Variances				
		F	Sig.	t	df	
Operating Activity	Equal variances assumed	.001	.980	-.523	10	
	Equal variances not assumed			-.523	9.979	
Investing Activity	Equal variances assumed	.000	.994	.334	10	
	Equal variances not assumed			.334	9.994	
Financing Activity	Equal variances assumed	.059	.813	.072	10	
	Equal variances not assumed			.072	9.968	

The Independent Samples T test is used to measure the statistically significant difference of accounting ratios under Ind AS and IFRS. The tool evaluated the significant difference in various accounting ratios (Liquidity Ratio, Profitability Ratio, Activity Ratio, Leverage Ratio and Cash Flow Statement). A p value less than 0.05 is considered to be statistically significant, in which case the null Hypothesis is rejected.

As per the above results, the p value is greater than 0.05 in all cases, hence the null hypothesis is accepted, and hence we can say that there is no significant difference of accounting ratios under Ind AS and IFRS.

### **Findings, Suggestions and Conclusions**

Disclosure of financial information is among the fundamental function of accounting department of a company. For disclosure of financial information, company follows the guidelines prepared by the regulatory authorities. Indian companies are presenting their financial statement on Ind AS basis, whereas IFRS is considered as a widely accepted set of accounting standard.

IT companies in India are already publishing their financial statements under Ind AS to meet Indian regulations and IFRS voluntarily since 2001 to meet the overseas regulations. The present study analyzed the various accounting ratios and cash flow statement of Infosys Ltd., on IndAS and IFRS by considering Income Statement and Balance Sheet Items. The final conclusion that can be drawn is:

- That in case of IT Sector Companies, it can be concluded that government should remove the requirement of preparing accounts on Ind AS basis. As the result shows that there is no significant difference in Accounting Ratios and Cash Flow Statement under Ind AS and IFRS, so preparing 2 sets of Financial Statement is just leading to wastage of time and money.
- Indian government can remove Ind AS and implement IFRS for IT Sector Companies.

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Annexure 1

**Comprehensive Consolidated Income Data**

(in ` crore)

Items Considered	31-03-2017		31-03-2018		31-03-2019		31-03-2020		31-03-2021		31-03-2022	
	Ind AS	IFRS	Ind AS	IFRS	Ind AS	IFRS	Ind AS	IFRS	Ind AS	IFRS	Ind AS	IFRS
<b>Value of Dollar as on 31<sup>st</sup> March</b>		64.8386		65.0815		69.4300		75.3677		73.2065		75.8278
<b>Revenues</b>	68484	66187	70522	71193	82675	81920	90791	96,320	100472	99,275	121641	1,23,683
<b>Cost of sales (COGS)</b>	(43253)	(41795)	(45130)	(45564)	(53867)	(5,3370)	(60732)	(64,455)	(65413)	(64,627)	(81998)	(83,380)
<b>Gross profit</b>	<b>25231</b>	<b>24392</b>	<b>25392</b>	<b>25629</b>	<b>28808</b>	<b>28,550</b>	<b>30059</b>	<b>31,865</b>	<b>35059</b>	<b>34,648</b>	<b>39643</b>	<b>40,303</b>
<b>Operating expenses:</b>												
<b>Selling and marketing expenses</b>	3591	3469	3560	3592	4473	4430	4711	5,004	4627	4,568	5156	5,247
<b>General and Administrative expenses</b>	4739	4584	4684	4732	5455	5402	5974	6,331	5810	5,739	6472	6,582

<b>Total operating expenses</b>	<b>8330</b>	<b>8053</b>	<b>8244</b>	<b>8324</b>	<b>9928</b>	<b>9832</b>	<b>1068</b>	<b>11,335</b>	<b>10437</b>	<b>10,307</b>	<b>11628</b>	<b>11,829</b>
<b>Operating profit (Gross Profit-Total Operating Expense)</b>	16901	16339	17148	17305	18880	18,7184	1937	20,530	24622	24,341	28015	28,474
<b>Other income, net</b>	3080	2976	3311	3339	2882	2,854	2803	2,977	2201	2174	2295	2,335
<b>Finance cost</b>	—	0	—	0	—	—	(170)	(181)	(195)	(190)	(200)	(205)
<b>Reduction in the fair value of asset held for sale/ Disposal Group held for sale</b>	—	0	(118)	(2)	(270)	(271)	—	—	—	—	—	—
<b>Adjustment in respect of excess of carrying amount over recoverable amount on reclassificat</b>	—	0	—	0	(451)	(451)	—	—	—	—	—	—

ion from "Held for Sale"												
Share in net loss of associate including impairment of associate	(30)		(71)		—	—		—		—		
Profit before income taxes	1995 1		2027 0		2104 1	20,850 7	2200	23,326	26628	26,325	30110	30,604
Income tax expense	5598	(5408 )	(4241 )	(4276 )	(5631 )	(5,575 )	(5368 )	(5705 )	(7205 )	(7,123 )	(7964 )	(8,098 )
Net profit after Tax	1435 3		1602 9		1541 0	15,275 9	1663	17,621	19423	19,202	22146	22,506
Profit attributable to:				0								
Owners of the company	1435 3		1602 9		1540 4	15,268 4	1659	17,568	19351	19,129	22110	22,468
Non- controlling interests	—		—		6	7	45	53	72	73	36	38

Adjusted for September 2018 bonus issue, wherever applicable.

**Comprehensive Consolidated Balance Sheet**

Items Considered	31-03-2017		31-03-2018		31-03-2019		31-03-2020		31-03-2021		31-03-2022	
	Ind AS	IFRS										
<b>Value of Dollar as on 31<sup>st</sup> March</b>		64.8386		65.0815		69.4300		75.3677		73.2065		75.8278
<b>Current assets excluding cash and cash equivalent(A) (Balancing figure)</b>	31080	31,077	30199	30,146	33310	33,431	35927	35,777	36019	36,069	49713	49,743
<b>Cash and cash equivalents (B)</b>	22625	22,622	19818	19,791	19568	19,642	18649	18,578	24714	24,744	17472	17,478
<b>Total Current Assets(A+B)</b>	53705	53,699	50017	49,937	52878	53,073	54576	54,355	60733	60,813	67185	67,221
<b>Non-current assets</b>	29650	29,644	29873	29,820	31860	31,993	38192	38,046	47653	47,716	50700	50,729

<b>Total assets</b>	<b>83355</b>	<b>83,3430</b>	<b>79890</b>	<b>79,7578</b>	<b>84738</b>	<b>85,0668</b>	<b>92768</b>	<b>92,4016</b>	<b>108389</b>	<b>1,08,525</b>	<b>117885</b>	<b>1,17,950</b>
<b>Current Liabilities</b>	14013	14,0125	14105	14,0848	18638	18,6986	20856	20,7796	23865	23,895	33603	33,614
<b>Non-current liabilities</b>	360	363	861	853	1094	1,104	6068	6,044	7739	7,753	8546	8,553
<b>Total liabilities (debt)</b>	<b>14373</b>	<b>14,3756</b>	<b>14966</b>	<b>14,9372</b>	<b>19732</b>	<b>19,8024</b>	<b>26924</b>	<b>26,8233</b>	<b>31604</b>	<b>31,648</b>	<b>42149</b>	<b>42,167</b>
<b>Total equity</b>	68982	68,9684	64924	64,8206	65006	65,2644	65844	65,5784	76782	76,881	75736	75,783
<b>Total Liabilities and equity</b>	<b>83355</b>	<b>83,3430</b>	<b>79890</b>	<b>79,7578</b>	<b>84738</b>	<b>85,0668</b>	<b>92768</b>	<b>92,4016</b>	<b>108389</b>	<b>1,08,525</b>	<b>117885</b>	<b>1,17,950</b>

**Quantitative Areas**

AREA	RATIO	FORMULA
<b>Liquidity Ratio</b>	Current Ratio	$\frac{\text{Current Assets}}{\text{Current Liabilities}}$
<b>Profitability</b>	Gross Profit Ratio	$(\text{Gross Profit} / \text{Net Sales}) \times 100$
	Operating Profit Ratio	$(\text{Operating Profit} / \text{Net Sales}) \times 100$
	Net Profit Ratio	$(\text{Net Profit} / \text{Net Sales}) \times 100$
	Return on Capital employed	$\text{EBIT} / \text{Capital Employed}$

<b>Activity Ratio</b>	Working Capital Turnover Ratio	Net Sales / Working Capital
	Asset Turnover Ratio	Cost of goods Sold / Total Assets
<b>Leverage Ratio</b>	Debt Ratio	Total Debt/Total Assets
	Proprietary Ratio	Shareholders Fund/ Total Assets
<b>Cash Flow</b>	Cash Flow Position	Operating Activities
		Investing Activities
		Financing Activities

## IMPACT OF FOREIGN DIRECT INVESTMENT ON ECONOMIC GROWTH IN INDIA

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### **Abstract:**

India would do better by concentrating on improving infrastructure, and human resources, cultivating local entrepreneurship, creating a stable macroeconomic framework, and creating conditions favorable for productive investments to accelerate the process of development if it wanted FDI to be a notable provider of economic growth. This paper is an attempt to analyse the causal relationship between Foreign Direct Investment (FDI) and economic growth in India and tries to analyse as well as estimate the effects of FDI on economic growth in India for 2020-23.

**Keywords:** Development, Economic Growth, FDI, India

### **INTRODUCTION:**

Foreign Direct Investment (FDI) is a cross-border investment that refers to a purchase of a particular organization's interest by another foreign organization in which the organization or investor is located in a different country. This investment not only brings money it also brings skills, knowledge, technology, and employment. The History of FDI in India was traced back to the establishment of the East India Company of Britain. During the colonial era the British capital came to India and after World War II, Japanese companies traded with India. Furthermore, the MNCs after Independence brought foreign capital, skills, and technologies

into India. Foreign Direct Investment provides access to International Market, technological transfer, and export growth and skills to improve the Balance of Payment and stability in inflows of funds in India. FDI acts as a bridge to fulfil the gap between investment and saving. To develop the economy, foreign capital plays a vital role to cover the domestic saving constraint and provide access to superior technology which provides and promotes efficiency and productivity to the existing production capacity and generate new production opportunity.

### REVIEW OF LITERATURE:

1. In the paper titled "**Impact of FDI and FII on Indian Economy,**" **Mohammad Zain Khan (2022)** states that FDIs have a more profound and long-lasting effect on the Indian economy and are therefore more important for the nation's economic development. The author refers to FDI as the "Engine of Growth" and states that it is more important than ever for the growth of the economy.
2. According to **Niharika Mehta (2022)** in the study titled "**Impact of Foreign Direct Investment on economic growth: Evident from Indian Economy**", states that domestic investment, government spending, and FDI have all had an impact on economic growth. However, the combined variable of human capital and FDI has the most substantial impact, while trade liberalization appears to be a minor factor. These findings show that capital is brought in by both domestic and international money in the form of FDI, which quickens the pace of economic expansion.
3. In the paper titled "**Impact of FDI on Indian Economy,**" **Dr. B.M. Hiremath (2021)** lists greater global competitiveness, the creation of substantial employment possibilities, and widespread growth in culture, trade, and technical know-how as some of the benefits of FDI in India. The author also believes that required steps should be undertaken to avoid the negative effects and suggests that the government should oversee every step.
4. **Vinodini Verma (2019)** conducted a study titled "**Impact of FDI on India's Economic Growth**". This study concludes that FDI and GDP are positively and highly correlated and FDI has a greater impact on India's Economy and its growth.
5. **Bhavya Malhotra (2014)** conducted the study under the title "**Foreign Direct Investment: Impact on Indian Economy**". The study found that the FDI has a positive

impact on the growth of the Indian economy. The inflow of Foreign Capital supplements domestic capital and the technology and skills of existing companies.

### RESEARCH GAP:

Review of Literature reveals that many number of studies have been conducted to evaluate the Impact of Foreign Direct Investment on Economic Growth in India between different timelines, for example **1990 to 2012**, but there were no research studies based on Impact of FDI on Economic Growth in India between **2018 to 2022**. Hence this is the area and timeline covered in this research study.

### OBJECTIVES:

The research paper covers the below given objectives:

- i. To study and to evaluate the impact of FDI on the Indian Economy.
- ii. To evaluate the flow of investment in India.
- iii. To study and analyse the trend of flow of FDI.

### RESEARCH METHODOLOGY:

The study on the Impact of Foreign Direct Investment on Economic Growth in India is fully based on the **collection of secondary data** that covers the inflow of foreign direct investment in India and the trend of the flow of FDI in recent times.

### DATA ANALYSIS AND INTERPRETATION:

Reserve Bank of India provides the Annual Report on Foreign Direct Investment flows to India in Country-wise and Industry-wise;

<b>Foreign Direct Investment Flows to India: Industry-wise</b>					
<b>(US\$ billion)</b>					
<b>Source/Industry</b>	<b>2017-18</b>	<b>2018-19</b>	<b>2019-20</b>	<b>2020-21</b>	<b>2021-22 (P)</b>
<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>

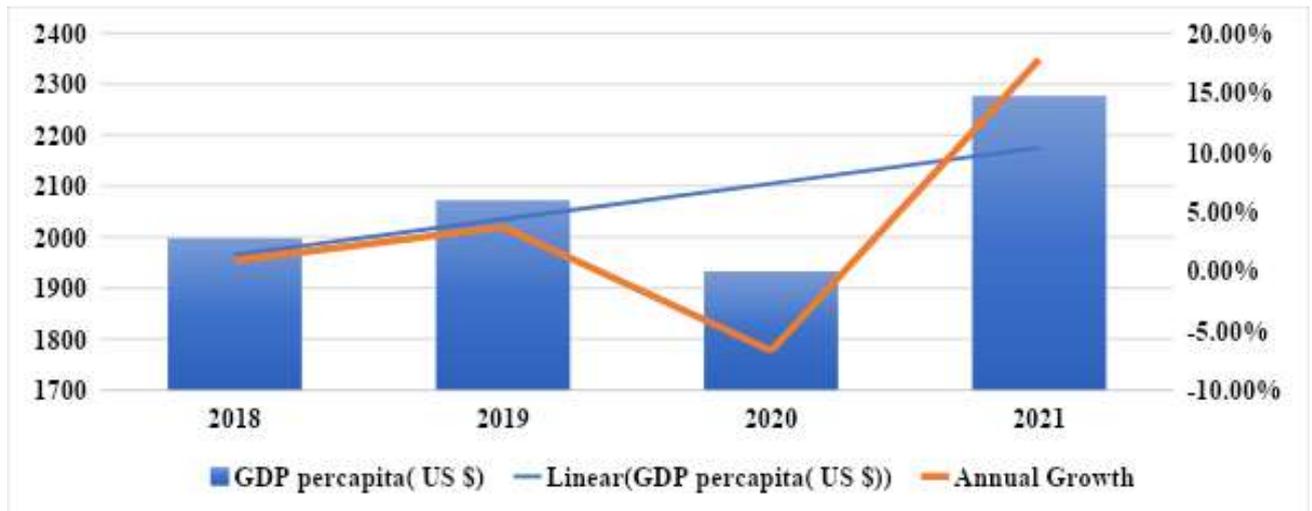
Total FDI	44.9	44.4	50	59.6	58.8
<b>Sector-wise Inflows</b>					
Manufacturing	9	9.6	9.6	9.3	16.3
Computer Services	3.4	3.7	5.1	23.8	9
Communication Services	9.1	6.5	7.8	2.9	6.4
Retail & Wholesale Trade	4.6	4.9	5.1	3.9	5.1
Financial Services	4.6	7.2	5.7	3.5	4.7
Others	13.8	12.6	16.7	16.1	17.4

**Source: Extracted from Reserve Bank of India (Compiled by the authors)**

This Data shows that Foreign Investment increases from 44.9 to 58.8 during the year 2017-18 to 2021-22. Further, India has been emerging as a preferred country for foreign investment in the manufacturing sector. FDI inflow in the manufacturing sector has increased by 76% in the financial year 2021-22. Followed by the data showing India's GDP per capita from 2018 to 2021:

#### **INDIA GDP PERCAPITA**

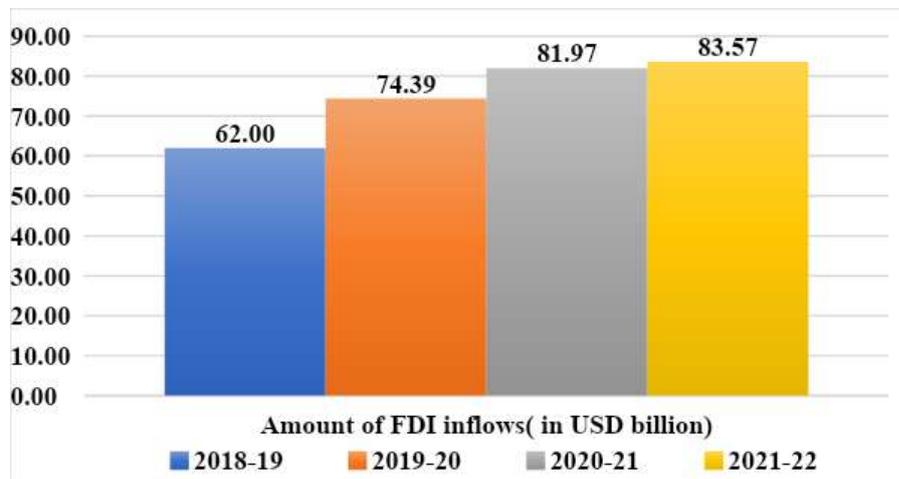
<b>Year</b>	<b>GDP per capita (US \$)</b>	<b>Annual Growth</b>
2018	1998	0.89%
2019	2072	3.70%
2020	1933	-6.71%
2021	2277	17.81%



Source: Extracted from World Bank (Compiled by the authors)

This data is collected from the RBI website regarding the inflow of FDI in India resulted in the growth of GDP during the years from 2018 to 2021, and the trend line shows stable growth in India’s GDP due to an increase in the Inflow of Foreign capital. The details of total FDI inflows reported during the four financial years from 2018-19 to 2021-22 are as under:

S.No.	Financial year	Amount of FDI inflows (in USD billion)	Percentage %	Rank
1	2018-19	62.00	20.54	4
2	2019-20	74.39	24.63	3
3	2020-21	81.97	27.15	2
4	2021-22	83.57	27.68	1
	TOTAL	301.93		



**Source: Extracted from Ministry of Commerce and Industry (Compiled by the authors)**

The analysis of the data on the inflow of FDI shows that there is a **7.14% increase in its flow from the period 2018-19 to 2021-22**, and from the trend line it is found to be a stable and continuous increase of foreign investment in India and also results in the **increase in GDP from 0.89% to 17.81% between the period 2018 to 2021**. From the trend line, it could be understood that there is a positive relationship between the Inflow of FDI into India, both increases in a positive direction imply a **Direct relationship**.

#### **FINDINGS OF THE STUDY:**

Foreign Direct Investment is Directly proportional to the Economic growth in India and it has the positive impact on the economic growth in India. When there is more inflow of FDI into India it results at increase in GDP of India during the financial year from **2019 to 2021**. The increase in GDP shows that **India has managed to attract good amount of FDI during this period**.

#### **CONCLUSION AND RECOMMENDATION:**

Hereby to conclude that FDI and Economic Growth in India (annual growth and GDP) are found positively or directly proportional to each other and there is an existence of linear relation between FDI inflows and GDP per capita. FDI would lead to a more widespread

integration of India with the worldwide market. The recommendation for the Government is to take all initiative to implement more liberal policies to attract foreign investment in India and to promote it with certain precautions but at the same time without ignoring its limitations. The Government should focus on FDI's favourable impact and utilize all kinds of assistance from various sources for India's economic growth and development.

### SCOPE FOR FURTHER RESEARCH:

This study analyses and evaluates the trend of flow of FDI and its impact on the economic growth in India during the year 2019 to 2022 but the detailed study on the opportunities created by FDI is remaining untouched and also the further study on FDI and its impact on the economy in India in the upcoming years are all the scope for further research.

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## **BRAND AWARENESS OF CUSTOMER ON THE PURCHASE OF SELECTED BRANDS OF MIXER'S IN CHENNAI CITY**

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### **Abstract:**

Brands in the initial consideration pool may be three times more likely to be acquired in the end than brands not included in it. Brand awareness has a greater impact on brand equity development than advertising promotion. More conscious brands grow faster. There is a strong positive correlation between brand awareness, perceived quality and brand equity. The present study aims at understanding the impact of brand awareness of customer on the purchase of selected brands of Mixer's in Chennai City. The study was carried out using 650 samples collected across Chennai. The collected data was analyzed using SPSS software and the results were interpreted. The Findings and suggestion will be useful for academicians, marketers, industries in understanding the impact of consumer awareness on customer satisfaction and purchase intention of selective brands of mixers.

**Keywords: Brand Awareness, Mixers**

**Introduction:**

Marketing research reveals that it is five to ten times costlier to create a customer than to retain them. The academic subject like marketing management and customer relationship management teaches the importance of retaining the customer over a longer period of time so that the company can cut down its cost on promotion and can have huge market share. If the company wants the customer to remember the products, then company must make the brand strong. Aakar (1991) has given the various dimensions of brand equity. The first and the foremost is the Brand Awareness. Brand Awareness is used by manufacturers, wholesaler and the retailers that connotes the level of awareness or knowledge the consumer have on a product when they see or hear its name.

Building Brand Awareness is stepping stone in promoting a new goods or services or bring back to life an older known brand. In brand awareness the producer, marketer or the intermediaries tries to differentiate the product from that of the competitors. So, Brand awareness is important and the present study analyzes the sustainability and brand awareness and its impact on customer satisfaction and purchase intentions of Home Appliances with reference to Chennai.

**Review of Literature:**

**Aakar (1991)** emphasized how the brand awareness is not taken crucially in brand equity building.

**Cobb-Walgren et al (1995)**, Brand awareness is most commonly used by customer for selecting the products.

**Aaker (1996)** defines brand awareness as the durability of a brand that embedded in the customer memory.

**Keller (1998)**, Brand awareness is built on a strong connection with consistent visibility, increased awareness and related offers and shopping experiences..

**Keller (2005)** identified that Branding awareness has become one of the essential management concepts for creating brand for all types of organizations. A small effort has been made to examine the financial, feasibility and implications of the business experience.

**Draganska et al (2009)** revealed that Advertising costs have a positive effect on brand sales but do not have a significant effect on positive sales. The main effect of advertising for a brand is to increase public awareness about a product.

**Subhani et al (2009)** studied that awareness has no relationship with perceptions in the case of milk brand. Other studies have shown that there is no direct relationship between labels for all types of milk.

**Wang (2012)** studied the company's brand image has a significant impact on customer satisfaction and customer awareness, and customer satisfaction has a strong impact on customer awareness.

**Ali (2012)** Studies have shown that customers want to see improvements in service and support Management should have a clear idea of what the customer wants and needs, the market environment, what they need to do to satisfy their customers, how to create their own brand identity, image and product awareness.

**Gupta et al (2013)** revealed that there is a growing awareness among people in rural areas about the different brands of everyday consumer products. People in rural areas are becoming more aware of their health and other aspects of life.

**Ehsan (2013)** studied the development of a brand awareness and brand loyalty as an essential thing. Managers around the world should actively promote and enhance customers' brand awareness and brand loyalty to enhance their purchase intentions.

**Nagasaki et al (2014)** Studies have shown that the economic aspects of green marketing should not be ignored because environmental issues are the focal point of green marketing decisions..

#### **Objectives of the study:**

1. To study the brand that is popularly used by customers in mixers
2. To analyse the variables that help in understanding the brand awareness of Mixers users
3. To make conclusion based on the research

**Research methodology:**

To study the above objectives data was collected from around 650 respondents in Chennai region who uses various brands of mixers in their Households. Convenience sampling was used in collecting the data through semi structured questionnaire. The data was collected and it was analysed using SPSS software and the results were interpreted.

**Analysis and Interpretation:****1. MIXER (Kitchen-ware Product)**

(Sample Size = 650)

VARIABLES	OPTIONS	FREQUENCIES	(%)
Name of the Brand	Preethi	287	44.20
	Butterfly	212	32.60
	Philips	100	15.40
	Bajaj	18	2.80
	Others	33	5.10
Years of Usage	1 – 3 Years	Open ended Question Variable)	30.30
	4 – 6 Years		46.00
	7 – 11 Years		23.70

Source: Primary Data

**INTERPRETATION**

- ❖ Majority of the respondents used the Mixer (Home Appliance), Preethi (287, 44.20%) followed by Butterfly (32.60%, 212), Philips (15.40%, 100) Bajaj (2.80%, 18) and other brands (33, 5.10%).
- ❖ In terms of Years of Usage of Mixer, 30.30% of the respondents used 1 – 3 Years, 46% of them used 4 – 6 Years and 23.70% of them used 7 – 11 Years.

## 2. BRAND AWARENESS (BAW)

**Table 1. Descriptive Statistics**

	N	Mean	SD
<b>I am very close with this brand</b>	650	4.17	.634
<b>I easily identify this brand among other brands available</b>	650	3.87	.810
<b>I have the enough information about this brand</b>	650	3.68	.718
<b>I can easily identify this brand with logo</b>	650	3.66	.810
<b>I want to purchase this brand rather than any other brand in stores</b>	650	4.02	.631
<b>BRAND AWARENESS (BAW)</b>	650	19.39	2.518

Source: Primary Data

### INTERPRETATION

- ❖ From the above table, it is found that the mean score (**M=4.18**) of the variable - “**I am very familiar with this brand**” is more than other variables.
- ❖ It is also found that the respondents have more Brand Awareness (BAW) with respect to the Home Appliances since the mean score of all the variables are above 3.5 (70%) out of 5.

### 3. HYPOTHESIS 1

**H<sub>0</sub>: There is no significant difference between the Male and Female respondents with respect to the various dimensions of Consumer Brand Equity of Home Appliances.**

VARIABLES	GENDER						t - value	p - value
	MALE			FEMALE				
	N	Mean	SD	N	Mean	SD		
I am very familiar with this brand	280	3.79	0.791	370	3.79	0.858	0.980	0.002
I easily recognize this brand among other competing brands	280	3.88	0.399	370	3.54	0.462	0.719	0.016
I have the sufficient knowledge about this brand	280	3.88	0.640	370	3.81	0.653	0.874	0.010
I can quickly recall the symbol or logo or jingles of this brand	280	3.78	0.610	370	3.72	0.643	0.385	0.046
This is the brand name that first comes to top of my mind when the name of the product is presented	280	3.81	0.762	370	3.45	0.882	0.698	0.033
<b>BRAND AWARENESS</b>	<b>280</b>	<b>19.14</b>	<b>2.367</b>	<b>370</b>	<b>18.31</b>	<b>2.726</b>	<b>0.747</b>	<b>0.045</b>
VARIABLES	t - Value	P - Value	Level of significance	RESULT				
				Significance	Null Hypothesis			
I am very familiar with this brand	0.980	0.002	0.01	Significant	Rejected			

I easily recognize this brand among other competing brands	0.719	0.016	0.05	Significant	Rejected
I have the sufficient knowledge about this brand	0.874	0.010	0.05	Significant	Rejected
I can quickly recall the symbol or logo or jingles of this brand	0.385	0.046	0.05	Significant	Rejected
This is the brand name that first comes to top of my mind when the name of the product is presented	0.698	0.033	0.05	Significant	Rejected
<b>BRAND AWARENESS</b>	<b>0.747</b>	<b>0.045</b>	<b>0.05</b>	<b>Significant</b>	<b>Rejected</b>

## INTERPRETATION

As the P value is lesser than Sig. Value (0.05 and 0.01) in Brand Awareness (BAW), Scores, the Null Hypotheses are rejected. Hence, it is concluded that there is a statistically significant difference between male and female respondents with respect to the Brand awareness of Mixers with respect to customers using mixers

### Results:

- (i) Among the various brands of mixers, majority of the respondents used the Mixer (Home Appliance), Preethi (287, 44.20%) followed by Butterfly (32.60%, 212), Philips (15.40%, 100) Bajaj (2.80%, 18) and other brands (33, 5.10%).
- (ii) Out of five variables used for finding the brand awareness, it is found that the mean score (M=4.18) of the variable - "I am very familiar with this brand" is more than other variables.
- (iii) It is found that there is no significance difference between the male and the female consumers of mixers with regards to Brand Awareness.

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**GREEN TECHNOLOGY – A GLOBAL REACH OUT TOWARDS  
SUSTAINABILITY**

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**INTRODUCTION**

**“The great challenge of the 21st century is to raise people everywhere to a decent standard of living while preserving as much of the rest of the life as possible”**

**Edward O. Wilson**

Development of a country takes place by exploiting its natural resources. Why should development be sustainable? Does it mean that economies are now growing at an unsustainable rate? Unsustainable development is the development that happens at the expense of the future. It is generally a result of faulty planning, lack of foresight into the future leading to environmental degradation and damage of ecosystems. But unfortunately, development cannot

happen without degrading the environment, at least some extent. Extracting the natural resources, setting up of industries and manufacturing of goods, etc. leads to environmental degradation. Thus degradation becomes inevitable. Classical economist like Jevons, Malthus and few others were able to foresee the result of unsustainable growth of economies over a period of time and raised alarm about the ill-effects of sustainability.

Was the environment clean and pollution free before the advent of industries? The answer is “no”. Pollution occurred even before human species came into existence. As long as the pollutants are biodegradable and falls within the assimilating capacity of the environment, pollution is permitted. As the population has been increasing rapidly, technology also had to evolve leading to increased pollution. The environment starts deteriorating when the pollution exceeds the assimilating capacity of the environment.

The industrial revolution has unleashed unprecedented economic growth over the last two and half centuries, mobilising massive resources and improving the standard of living in many parts of the world. After the industrial revolution the so called “developed countries” developed only at the cost of environmental degradation. Hence forth, the developing countries should rightfully be given, “right” to pollute. But the environment has been degraded to an extent that the developing countries have to grow and eventually develop using a technology that degrades the environment to its minimum and utilises the resources to its maximum. This can be made possible by the adoption of “green technology”. This technology is eco-friendly it should eventually replace the existing technology

### **WHAT IS GREEN TECHNOLOGY?**

Technology can be termed as the application of knowledge for practical purposes. “Green technology” helps addressing the emerging issues of sustainability because of the advancement in science and technology. This technology should meet the needs of society in ways that can continue indefinitely into the future without damaging or depleting natural resources. In short green technology is defined as “the technology that meets the present needs without compromising the ability of future generations to meet their own needs”. (United Nations Environmental Programmes Report, 2006). Green technology is known as

“environment healing technology” as it reduces the environmental damages caused by products and technologies.

### **WHY SHOULD WE GO GREEN?**

Rapidly increasing population and the impact it has made on the resources has led to global environmental concerns like global warming, climate change depleting energy resources, etc. It is believed that execution of sustainable [green] technological changes will have assured results. While the perspectives of green technology look promising, it is also sustainable and cost effective. This results in assured markets for green technological instruments. Moreover green technology predominantly makes use of renewable energy resources, which makes it more environment friendly and also helps in the preservation of non-renewable resources. Green technology can be adopted as the norm of the present and the future.

### **LITERATURE REVIEW ON GREEN TECHNOLOGY**

The term “green technology” is closely associated with “sustainable development”. Sustainable development can be achieved through the adoption of green technology. According to Anderson (2009), for several years, the importance of the management of green innovations has been growing, both in practice and in academia. According to Coriolanus (2002) eco/ecological and environmental innovation are used largely synonymously, while the notion of sustainable innovation broadens the concept and includes a social dimension. According to Arun del and Kemp (2009), adoption of green technology leads to reduction in use of resources, pollution control and waste management, etc. Adoption of green technology has recognised global acclaim. The success was measured using metrics like profitability and market share. According to Ultra and Saint Jean (2009) green technology involves including the innovation in technologies that are involved in energy saving, pollution prevention waste recycling, green product designs and corporate environmental management.

The field of green technology comprises of continuously evolving group of environmental friendly methods and materials from techniques for generating non conventional energy source such as solar power to management tools that help in auditing greenhouse gas emissions. Green technology development must be sustainable, meaning “balancing the fulfilment of human needs with the protection of natural environment and resources so these needs can be met not only in the present, but in the indefinite future” (Burtland Commission report, 1987).

### **GREEN TECHNOLOGY- AN INSIGHT**

Harnessing the usefulness of non-conventional energy plays a major role in achieving the goal of sustainable development. Conventional energy sources include coal, petroleum, fossil fuel, etc. These resources are exhaustible or non-renewable by nature. Technically no resource is non-renewable. In case of coal, for example, takes thousands of years to get formed as coal. In other words the time taken for harvesting the resource is indefinitely long and the process is extremely slow. Their availability is also localised by nature. That is, they are available only at specific places and not universally available.

On the other hand, non-conventional resources are ubiquitous in nature. Examples of non-conventional resources include solar energy hydel power wind energy tidal energy, biogas, etc. The energy from the sun can be harnessed by setting up of solar panels where the photovoltaic batteries convert the sunlight into energy. Hydroelectricity is obtained from the force of falling water. Multipurpose dam projects play a vital role in generating hydroelectricity. Huge windmills are used in converting the force of wind into electricity. Netherlands is the country that pioneers in the production of energy from wind. Tides release huge energy while they come in contact with the shores. Unfortunately India, which has got a huge coastline, has not been focusing much in harnessing tidal energy. Biogas is obtained from the organic waste. India is the leading country in the production of biogas followed by China. Implementation of biogas technology has been largely successful in meeting the domestic fuel requirements of the rural areas. Non-conventional sources of energy emit very low or nil levels of emissions and effluents. This makes them environmentally safe and friendly.

At present, green technology has been widely used in the treatment of waste water treatment, air pollution control, environmental remediation, waste treatment and management and energy conservation.

1. **WATER TREATMENT:** Water treatment is the process of removing chemical physical and biologically undesirable components from water. The purpose is to make water suitable for specific purpose. Water treatment may be designed for variety of applications including requirement for human consumption (portable water), medical and pharmacological requirements or chemical and industrial applications. Conventional filtration methods which include chlorination, filtration, sedimentation, etc. In recent days many water treatment plants have been resorting to ozonation procedure as it promises removal of bacteria and harmful pathogens, thus making water portable
2. **WASTE WATER TREATMENT:** Wastewater treatment is the process of removing contaminants from wastewater that are released from household sewage and the industrial effluents. Before discharging the water back into the water bodies, waste water has to be purified to some extent to protect the public health and environmental quality. The waste water treatment plants are designed to: reduce biodegradable organics, remove most of suspended solids and destroy pathogenic microorganisms. Disinfection is predominantly done with chlorine, which destroys most of the pathogens.
3. **AIR POLLUTION CONTROL:** Air pollution is the introduction of chemical or particulate matter into the natural environment and causes harm or damaged humans or any living organism. Pollution in the air has been escalating over a period of time. Many reasons for this can be attributed to rapid urbanization and industrialization. This has led to the greenhouse effect. To control air pollution and reduce greenhouse gases the emissions have to be treated before they get released into the environment. Air pollution devices are generally used to remove the harmful emissions. Constant lookout for replacing the conventional polluting fuels by non-conventional renewable and least polluting resources has been taken up.

4. **WASTE MANAGEMENT:** Waste management involves is the purification and treatment of solid waste. Waste management techniques differ from developed to developing countries, rural urban areas and residential to industrial areas. Waste management should be done separately for metallic and non metallic waste. Waste management has been integrated and practiced along with recycling processes.
5. **ENVIRONMENTAL REMEDIATION:** Environmental remediation is the removal of contaminants or pollutants for the general protection of the environment. Various remediation methods have been used. They can be brought broadly classified as ex-situ and in situ methods. Ex-situ method involves excavation of the affected soil and treating the surface. In situ method involves treating the surface, without removing the soil. In this method solidification and stabilization has been used extensively.
6. **ENERGY EFFICIENCY:** Energy efficiency refers to the efforts taken to reduce the amount of energy required to provide the goods and services. It involves the use of green technology and devices that require lesser amounts of energy in order to reduce the consumption of electricity. Energy efficiency can result in increased financial capital, environmental equity, national security and personal security, etc. Reducing the use of electricity results in burning of less fossil fuel and results to less contribution to greenhouse gases.

### **BARRIERS IN ADOPTING GREEN TECHNOLOGY AND SUGGESTIVE MEASURES**

The main factors that impose barriers in adopting green technology are:

- lack of institutional support lack of financial support and
- lack of time to learn new technologies
- The government should make sure that it establishes the necessary institutional support and create awareness through educational and research institutions.
- Revamping the whole production technology is expensive in both real and monetary terms.
- Expanding the banking network will enable the producers to adopt green technology.

- Low interest loans, tax holidays, etc. can be announced to encourage the adoption of green technology.
- The equipment that promote green technology should be user friendly in case of small investors and in case of large industrial establishments, proper technical education should be offered.
- Moreover the government of the developing countries should mandate the adoption of green technology.

**CONCLUSION:** Owing to the environmental and ecological damages the current technology has created, there is an urgent need to switch over to green technology. Stricter laws and policy changes are required to enable this change. Unless green technology has been adopted as the norm of the day the goal of sustainability can never be reached. Hence that arises an urgent need for both developed and developing country to switch over to green technology.

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## PERFORMANCE AND EFFICIENCY OF BANK APPLICATIONS WITH RESPECT TO DIGITAL TRANSFERS

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### Abstract

The immense change in the technology has led the banking sector to have a varied services competing with technological innovation with the other industries. The performance plays a key role in the banking sector with regard to its applications. The customer's thoughts and views towards the digital banking have changed drastically. The important factor to be considered while having the banking applications is its efficiency in performing with the customers. Data was collected by using a structured online questionnaire that was designed using standard variables from the usage of banking applications. Principal component analysis was used to identify and score these factors for the subsequent categorical regression analysis. The key factors highlighted are the application makes banking quick, application makes bank efficient, application is user friendly, application is easy to learn, application is easy to navigate, it is safe to use the mobile application, transactions are confidential, trust that privacy would be maintained, mobile transactions are legally secure, receive information of benefits of mobile application, information is relevant to my need, bank provides adequate information and reliable internet connectivity. The study was carried out with 120 samples and the statistical tools used to analyse the data are one way Anova and Correlation analysis. The concluding observation is that the use of digital payments has an drastic effect on the performance of the banking applications.

**Keywords: Confidential, Efficiency, Navigate, Performance, Safe.**

## **IMPACT AND EVOLUTION OF TRADITIONAL RETAILER'S BEHAVIOR AFTER THE ARRIVAL OF ONLINE SHOPPING**

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### **Abstract**

The word 'Retailer' means "to cut again." Retailing means to cut a small part from a huge piece of commodities. The study objective is to determine the offline retailers behavior after arrival of online shopping. The Research method is the precise communication or procedure use to classify, choose conduct, and investigate information on a subject. The research method use in my study includes both primary and secondary sources. The primary Data were in created by the investigator himself, the survey discussion, the experimentation, especially intended to accept and solve the research trouble. Secondary data was collected via journal, magazines', books, theses, etc., A Convenience sampling method was used. The information for the study have been composed from main sources like straight individual Interview with the owner of diverse retail stores. The world composed of 100 preferred retailers. To accomplish the survey study a sample of 100 retail stores was preferred facilitated lasted. The study finds that 76% of retailers aware about online shopping, 76% of retailers agreed that the online offers time the sales volume is less, and 68% of retailers strongly agreed that the technology affected the offline business is more. The study concluded that the retailers are changing the business activity on now a days and also some losses faced with the arrival of online shopping. This paper identified and endorsed the retailer's behavior, The researchers suggests that the retailers change sales and buying behavior, the researcher suggest that the retailers change the sales and buying behavior.

**Keywords: Retailers, Online shopping, Offline shopping, Technology**

### **1.1. Introduction**

The whole Indian markets have two types, they are online and an offline market .online market plays a large role in the market place today. In Online store may probably healthy as well be called e-website store, e-shopping, e-store, website-shopping, online shop, convenient store etc. Online shopping means buy and sell the goods with e-commerce. Since online and offline shopping be alive on at the equal occurrence and are connected with everyone, there control be a possibility that consumers are complicated for a contact in Traditional retail shopping comparable to the single that happen in electronic tailing. In fact certain a few authors like Floridi (2007) claim that “the entrance way among online and offline motivation quickly disappear”. Additionally, Baym (2009) persist that “online and offline are not diverse thing that require to live difference” and “what happen through fresh talent is systematically intertwine with what happens personally face to face using other media”. In fact, as formerly referred, Chu, et al. (2010) discussion about Online and traditional retail shopping as calculation which strength mean that the restrictions between online and offline retailing are gradually more vague and in the close to expectations they resolve disappear transforming offline and online shopping into one single genuineness. With this presumption in brain, this job analysis whether citizens are accessible to have a shopping performance in traditional retail shops comparable to the individual they have in online retail shops and if company can discover it persistently.

The online shopping known as to acquire the goods and service over the internet. Online shopping has transformed the business world by construction all obtainable by the simple click of a mouse button and to search during goods are services above mobile phones, tablets, supercomputer etc.( Aniket Khatwani). But still now people are facing troubles of online shopping in the sense of quality of the product, time of delivery and defective items, etc., so the people sometimes do not prefer the online shopping, they are don't trust in online shopping.

So, people assumption where they can best the healthy again concurrence, online or in the lock by stores. Close by stores are offline stores. People wish for to do their shopping online shopping v/s traditional shopping, regularly plane have their prize and inconvenience. Online shopping supply other repayment like shameful distribution expenses, no require for product shipping, and no boundaries on shopping hours, time saving and usefulness. Still, it do not permit finger touch, feel, sample and testing with the manufactured goods and frequently earn delivery and taking expenses. When compare to online shopping, traditional shopping is a confined choice to shop. You identify from wherever do the things come, no one preserve heist

your data, even you can believe the selected excellence and can see the product as purely bearing in mind, pictures doesn't work every time. These are all the things revolution to online shopping. Also there is the difficulty that online shopping craft within a convinced area for free but lots of times when you are located external of city or area you must to pay heavy shipping cost delivery prices. So infrequently people not desire online shopping. The Benefit of online shopping is that result things are fair effortless as they are accessible just at a click of the button not ensuring the quality of the product. This is the major problem in online shopping. For example, if some shops that sell cakes in online, there is no way for you. To identify what are you purchase but when you for traditional shopping, you can fragrance and in some cases still taste the cakes. Thus the smell and touch feel is a very significant factor to purchase the product through offline.

In Tamil Nadu market online and offline stores can be submit balance since both the online and offline stores have limited features (Chu, et. al, 2010). Yet the Eletronic-commerce is increasing rapidly in terms of capacity and revenues, (Mandilas et al. (2013), pronounce that the traditional retail shops are not in likely to be entirely replace by online stores. But occasionally they are facing risk. (José Pedro Santos Ferreira,2015)

In fact, the one other usage of online shopping use the online web store decrease look for expenses and allow painless and quick access to price information as regard the rate and other generate features as well as make easy a fast connection among products. In on the other hand the offline retail shopping allow a instantly contact with the product, immediate pleasure, but it also engage high transport and search expenses, and has boundaries in shopping hours (Grewal et al., 2004). This paper evaluated both the online and offline market. Now a day the retailers touch how to make the marketplace and how to defeat these situations in business.

## 1.2. Review of literature

**Neeru Jaswal, Shobhna Gupta(2017)** Retail is the trade of goods to last consumers for use and utilization not for resale. The paper entitled factor affecting increase of organized retailing in India and their challenges and opportunities. The study focus on to know various reason distressing the add to of prepared retailing in India and to study a multiplicity of challenge face and opportunity accessible for increase of organized retailing in India. The research plan is enlightenment in natural world. Secondary data source were used. The lessons found that retail

is a highly energetic manufacturing a huge option for conjugal and global retailers, the present retailing is a not a complexity for traditional stores most consumers have said that they have never stopped visiting traditional stores, every one strongly agrees that both sectors are compulsory. In India, there is no doubt, due to lack of time and growth of the class planned sector is increasing but still people in rural and semi urban area are still prefer to buy from kirana stores due to the faithfulness and infinity.

**Raja sarkar, Sabyasa chi Das (2017)** the vigorous opposition among the web stores and traditional unit and big gun counterpart encompass usher in a latest era where consumers can pick the most convenient way to shop. The study conducted that online shopping Vs Traditional shopping a comparative study on Odisha, India. The methodology of the paper is completely based on secondary data in the sense of empirical paper. So the studies concluded that the mass of consumers in India still choose online, the real shopping experience of buying brick and mortar store in real store. Frequently the youngsters feed the amercing growth history of web based shopping in India. The idea of Omni guide procedure has continuing to come to the fore. While retailers are trying to stay here in both web shopping and traditional shopping to exploit of maximum number of customers.

### **1.3. Statement of the problem**

According to Kearney Research, India's retail industrialized is predictable to increase at a slower rate of 9% compared to 2019-2030, from US 779 billion in 2019 to US 1,407 billion by 2026 and over US 1.8 trillion by 2030. (Retail Industry in India-IBEF <https://www.ibef.org>) Today's market is very vibrant in this world. There are two ways of marketing in the current situation. All the peoples use the word online and offline. In this paper, identified the problem about the occurrence of the retailers behavior in the offline market after the arrival of online Market. After the arrivals of the online shopping the retailers have changed the business ethics in the change of the payment options, the adaptation of technology, and the customer favorite products. These types of evolutionary processes were conducted by the researcher.

### **1.4. Objective of the study**

The subsequent points are the purpose of the study

1. To establish Demographics profile of the respondents.
2. To evolution of offline retailers' behavior after arrival of online shopping

### 1.5. Research Methodology

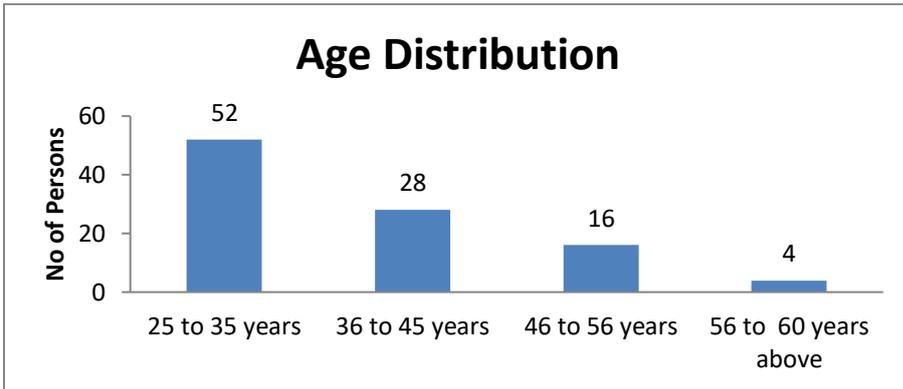
The research techniques define the overall of data collections. There are two methods generally used by investigator to gather the information are primary and secondary method. The Primary methods include such as interview and the questionnaire methods. This study used an interview method was used. The Secondary method is already gathered. The current study is based on a mixture of both qualitative and quantitative data. The qualitative data are collected through from the retailers. The sample individual is selected from diverse groups of people including the selection of products. The size of sample that is mandatory conducts a exacting part of research. For this study 100 samples sizes are in utilize for the interviews. From this example size, simple percentages for are calculated for every the convenience sampling technique was use for gather the main information. The percentage analysis, chi-square test used to work out the offline retailers.

#### Tables Personal profile of the Respondents

Age	Frequency	Percent	Valid Percent	Cumulative Percent
25 to 35 years	52	52.0	52.0	52.0
36 to 45 years	28	28.0	28.0	80.0
46 to 56 years	16	16.0	16.0	96.0
56 to 60 years above	4	4.0	4.0	100.0
Total	100	100.0	100.0	

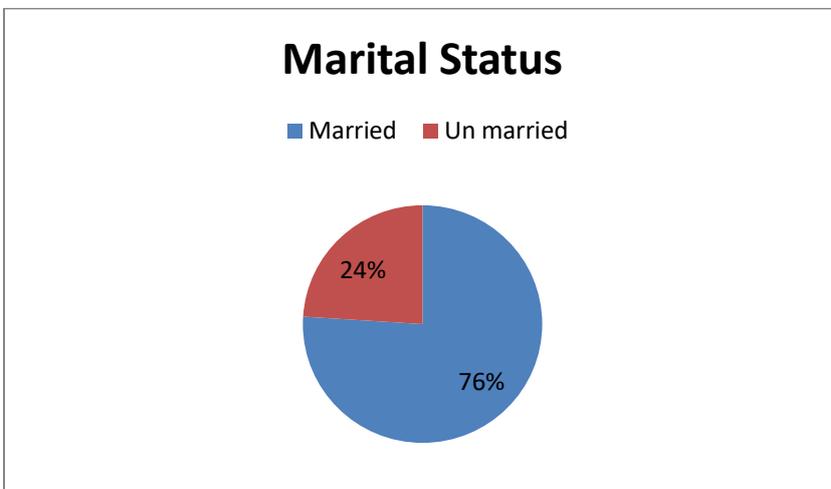
(Source: Primary Data)

The table over indicates to majority of 80% the answers are between the ages of 36 to 45 years and the at least 16% are between the ages of 46 to 56.



Matrimonial Status	Occurrence	Percent	Suitable Percent	Growing Percent
Married	76	76.0	76.0	76.0
Un married	24	24.0	24.0	100.0
Total	100	100.0	100.0	

(Source: primary data)

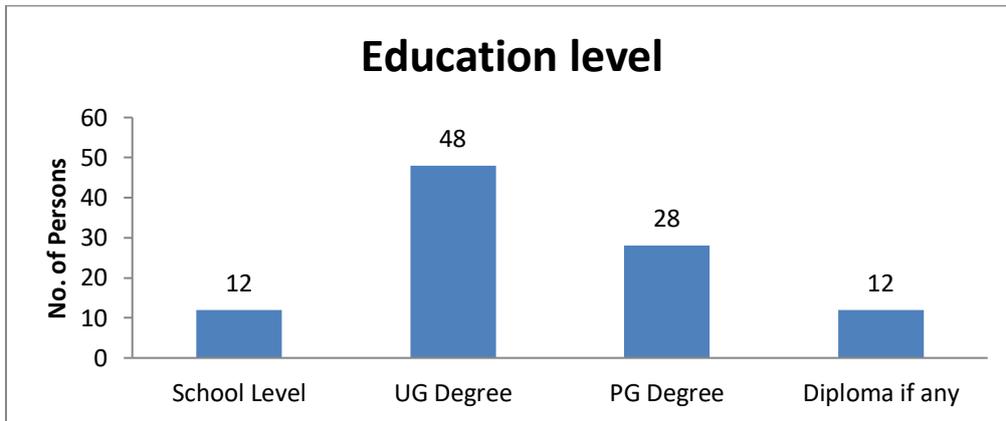


According to the on top of table shows that, majority of 76% of the respondents are matrimonial and the at least 24% of the respondents are unmarried

Education	Occurrence	Percent	Suitable Percent	Growing Percent
School Level	12	12.0	12.0	12.0

UG Degree	48	48.0	48.0	60.0
PG Degree	28	28.0	28.0	88.0
Diploma if any	12	12.0	12.0	100.0
Total	100	100.0	100.0	

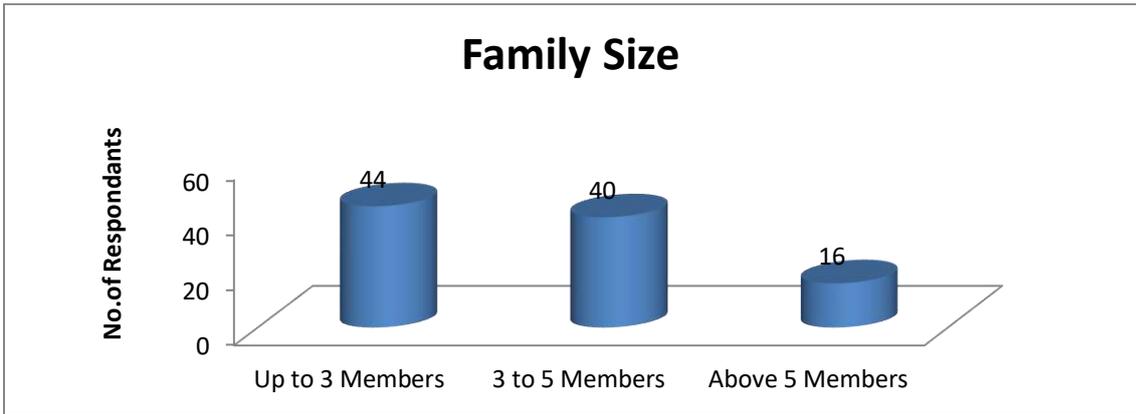
(Source: primary data)



The on top of table show that, bulk of 48% the respondents are studying UG degree and that at least 12% of the respondents are studying the school and diploma level.

Family Size	Occurrence	Percent	Suitable Percent	Growing Percent
Up to 3 Members	44	44.0	44.0	44.0
3 to 5 Members	40	40.0	40.0	84.0
Above 5 Members	16	16.0	16.0	100.0
Total	100	100.0	100.0	

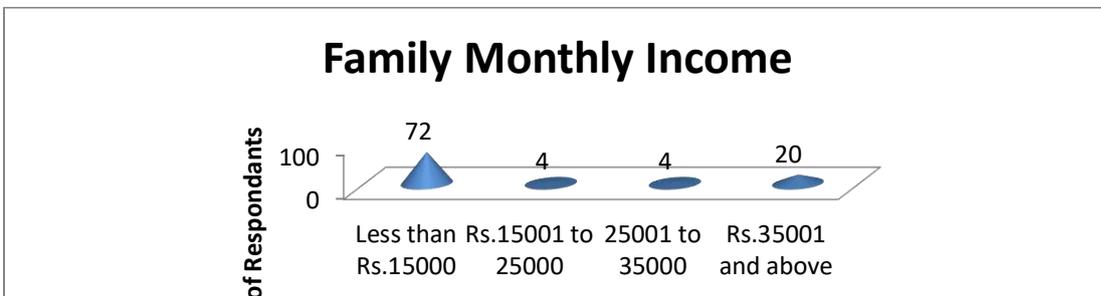
(Source: primary data)



The chart above shows that greater part has 44% of the respondents have up to 3 members and the at least 16% of them have more than 5 members.

Family Income	Monthly Occurrence	Percent	Suitable Percent	Growing Percent
Less than Rs.15000	72	72	72	72.0
Rs.15001 to 25000	4	4.0	4.0	76.0
25001 to 35000	4	4.0	4.0	80.0
Rs.35001 and above	20	20.0	20.0	100.0
Total	100	100.0	100.0	

(Source: primary data)



The over table it explained that bulk of 80% of the respondents family income is between 25000 to 35000 and that at least 72 % of the respondents are income less than 15000.

**1.6.1 Age association with five variables**

Demographic Variables	Website design	Value	df	Sig(p-value)	Remarks
Age	I Aware of online shopping trends?	17.341 <sup>a</sup>	3	.001	Significant
	Business started	31.289 <sup>a</sup>	6	.000	Significant
	Volume of sales decreased	8.242 <sup>a</sup>	3	.041	Significant
	Profit decreased last few years	14.131 <sup>a</sup>	6	.028	Significant
	Which mode of payment highly prefer by the customer	48.849 <sup>a</sup>	9	.000	Significant

(Sources: primary data)

The over table shows that the important level among the demographic factors is associated with five variables. As a result, it is finished that here is no relationship between age and five variables, Namely I know about online shopping trends, business has started, volume of sales decreased, profit decreased in recent years. The method of payment strongly preferred by the customer.

**1.6.2 Marital status association with five variables**

Marital Status	I Aware of online shopping trends?	11.704	1	.001	Significant
	Business started	19.635	2	.000	Significant
	Volume of sales decreased	1.316	1	.000	Significant
	Profit decreased last few years	19.258	2	.000	Significant
	Which mode of payment highly prefer by the customer	14.891	3	.002	Significant

(Sources: primary data)

The on tops of table indicate that the major level demographic factor linked with five variables. As a result it is concluded that there is no link between marital status and five variables namely,

that I am aware of online shopping trends, business started, volume of sales decreased, profit decreased in recent years, payment method highly preferred by the customer.

**1.6.3 Education association with five variables**

Educational	I Aware of online shopping trends?	27.684	3	.000	Significant
	Business started	27.749	6	.000	Significant
	Volume of sales decreased	5.357	1	.000	Significant
	Profit decreased last few years	30.465	6	.000	Significant
	Which mode of payment highly prefer by the customer	60.998	9	.000	Significant

(Sources: primary data)

The on top of table says momentous level among demographic factor associated with five variables. The result concluded that there is no association between Education and five variables that I am aware of online shopping trends, business started, volume of sales decreased, profit decreased in the recent years, payment method highly preferred by the customer.

**1.6.4 Family size association with five variables**

Family size	I Aware of online shopping trends?	6.100	2	.047	Significant
	Business started	25.741	4	.000	Significant
	Volume of sales decreased	11.136	2	.004	Significant
	Profit decreased last few years	17.276	4	.002	Significant
	Which mode of payment highly prefer by the customer	31.169	6	.000	Significant

(Sources: primary data)

The over table says that important level demographic factors associated with five variables. Therefore concluded that there is no association between family size and five variables I know about of online shopping trends, business started, volume of sales decreased, profit decreased last few years, payment method highly preferred by the customer.

**1.6.5 Family Monthly income and Aware of online shopping trends**

Family Monthly income	I Aware of online shopping trends?	19.505	4	.001	Significant
	Business started	20.863	8	.005	Significant
	Volume of sales decreased	21.176	4	.000	Significant
	Profit decreased last few years	42.647	8	.000	Significant
	Which mode of payment highly prefer by the customer	58.824	12	.000	Significant

(Sources: primary data)

The above table Indicates that significant level of demographic factors associated with five variables. Therefore it is concluded to present is no association among families monthly earnings and five variables namely that I aware of online shopping trends, business started, volume of sales decreased, profit decreased last few years, which mode of payment highly preferred by the customer.

**Evolutions of Online and Offline Shopping Behaviors of Customer**

The above chats told that the retailers analyzed these are all factors behavior in customers .these all the factors influenced more the customers behaviour. So the researcher evaluated the retailers attitude both online and offline. Thus the result the offline retailers have must change the business rules and develop the business in effective manner.

**1.7 Result of the study**

The lessons finds that the greater part of 80% of the answers are between 36 to 45 years age category, greater part of 76% of the respondents are matrimonial, bulk of 48% answers are

studying UG degree, majority of the 44% of the respondents are up to 3 members, and majority 80% of the respondents is between family income is 25000 to 35000. The conclusion was to present that there is no relationship between age and five variables, that I am aware of online shopping trends, business started, volume of sales decreased, profit decreased in recent years, which mode of payment is highly prefer by the customer.

### **1.8 Suggestion of the study**

This study suggests that the offline retailers have followed some techniques to run the business. But now the market is quite unique and dynamics. So retailers should be tracking the new technology to improve the customer. The retailers guard and support the customer accurately. The customer is the backbone of the business, The study suggests that the retailers completely focused on customers needs and their wants.

### **1.9 Conclusion**

This paper concludes that the offline retailers are aware of online shopping and that profit and the sales have decreased in over the last few years. They are associated with demographic factors. This evaluation therefore meaningfully accepted the business issues. In the current situation, the retailers trying to change the behavior to modify the business activities. They are trying to change the business model and adopt the new technology.

### **1.10 Future Implications**

The retailer is a middle man of the business .his role is very important in the business world. In the current era the retailers have faced some problems, on business and also changed their behavior. This paper in future can be done on how to overcome this situations and changing the behavior of retailers to run the business successfully.

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**ARTIFICIAL INTELLIGENCE FOUNDATIONS IN HIGH SCHOOLS**

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**Abstract:**

Deep understanding of artificial intelligence (AI) will be more and more crucial for jobs in research and engineering. Therefore, this article will propose an inventive educational initiative that teaches the essential ideas of AI at the high school level. We created an AI course that covers the key concepts of problem solving, search, planning, graphs, data structures, automata, agent systems, and machine learning. The course is divided into theoretical and practical sections. An empirical evaluation of a pilot project was done. According to the evaluation's findings, the participating students have become used to both those ideas and the range of subjects covered. Future studies in various schools that aim to integrate AI in secondary scientific instruction will be built on the findings and lessons acquired from this research.

**Introduction**

Artificial intelligence (AI) is already present in many aspects of our daily lives (e.g. intelligent household appliances, smart- phones, Google, Siri, AI in computer games, . . . ). Many of us are aware of the services and products based on AI, but very few of us are aware of the technology that underlies them. Therefore, it is crucial to familiarise students with the technical background and underlying ideas, such as algorithms, data structures, and programming/coding, while they are still in school. Literacy in computer science and artificial intelligence will soon become a significant problem, much like traditional literacy, which covers writing, reading, and mathematics. Additionally, students benefit from AI literacy by receiving a strong foundation for their future careers and university-level studies. Currently, there is little emphasis placed on teaching these fundamental concepts in computer science

classes. To address this issue, we created a high school AI course called "iRobot" that covers the key areas of AI and computer science (automatons, agent systems, data structures, search algorithms, graphs, problem solving, planning, machine learning). The course was broken up into seven two-hour teaching units that met once a week and included both hands-on and theoretical instruction. In a representative Austrian high school that integrates robotics into its normal curriculum, we carried out and evaluated a pilot study (e.g. participating in robotics competitions, offering robotics electives etc.).

It is uncommon to find schools that teach basic AI principles and methods (across all platforms and programming languages). Numerous strategies concentrate on undergraduate and graduate students at the university level (Torrey 2012; McGovern, Tidwell, and Rushing 2011), as well as teacher preparation programmes (Dilger 2005). Common school-level approaches, such as those in (Heinze, Haase, and Higgins 2010; Fok and Ong 1996), only cover a small portion of AI (such as history, the Turing Test, chat bots, neural networks, etc.), or they use constrained tools or platforms to illustrate AI concepts (such as in Featherston et al. 2014). The methodology (structure, content, and teaching methods), evaluation, and outcomes/conclusions of this pilot project will all be briefly discussed in the parts that follow

## Methodology

The project has been organised into seven weekly teaching units (hosted by university researchers, lasting two hours each), including theoretical and practical components based on constructionism's tenets (Papert 1993). As part of their robotics electives, nine students in grades 9 through 11 (average age 16.5 years; 1 female, 8 male; all with prior expertise in robotics but none in AI) participated in these lessons. According to the constructionism theory (Alimisis 2009), students actively participated in their education. Activities included building robots, conversations, group projects, assignments, and programming or paper-and-pencil exercises. The materials were modified to take into account the students' past knowledge of robots (which they had acquired from participating in junior robotics competitions). According to Russell and Norvig (2009), the course's major AI subjects were organised as follows:

## **Automata**

were discussed at the start of the course because they serve as a neutral foundation for explaining systems and behaviours and provide a straightforward illustration of the decision-making process. One of the practical assignments involved modelling the current robots of the students as a deterministic finite automaton.

## **Intelligent agents**

Subsequently, simple reflex, model-based reflex, goal-based, and utility-based agents) were introduced, giving the students' earlier robotics experiences a useful perspective. Agent models are useful resources to illustrate the simulation of decision-making and action. Building Braitenberg vehicles out of Lego Mindstorms NXT was one of the exercises.

## **Graphs and data structures**

In order to lay the groundwork for next modules dealing with issue solving/search, (stack, queue, trees) as well as the definition of a problem in the field of artificial intelligence (AI) were adapted. Programming a robot to navigate a small labyrinth and create the accompanying graph was a practical project.

## **Problem solving by search**

was one of the course's primary emphasis areas because it is a key approach in computer science and artificial intelligence with several applications (such as addressing planning problems, SAT problems, and constraint satisfaction problems, or CSPs). The breadth-first, depth-first, and A\* search algorithms were taught to the students by discussing the theory behind them, having them do paper-and-pencil tasks to examine each algorithm, and having them implement the A\* algorithm in C#.

### **Classic planning**

Introduced to students were propositional and predicate logic, state-space planning, and forward and backward chaining to solve this. Students had to solve a planning problem (given initial-/goal-state and actions with pre-/post-condition) among other group activities. The entire problem domain was masked (for example, changing the objective state Have(Bananas) to Eahv(Nnaaabs)) in order to imitate the "computer's view" of this problem and to obscure students' common sense.

### **Machine learning**

The lesson's conclusion served as its culmination. The emphasis was on presenting and debating various approaches to learning agents, such as logic-based learning, knowledge-based systems, reinforcement learning, decision trees, and neural networks

### **Evaluation**

Reliable qualitative and quantitative empirical research techniques were used to evaluate the project (Diekmann 2007). We used a paper-and-pencil post-questionnaire (Likert-scale, open-ended questions) for a quantitative evaluation that included comments on the design and delivery of the weekly training modules as well as a self-evaluation of gained abilities. With regard to the qualitative assessment, we conducted semi-structured interviews with each participant's student using a series of predetermined questions as a guide (Hove and Anda 2005). After transcribing all of the recorded interviews, a content analysis was carried out (Neuendorf 2002). Additional qualitative data was gathered throughout the weekly teaching units utilising participant observation approaches (field notes, discussions, and snapping images) (Jorgensen 1989). All information gathered was handled anonymously and in strict confidence.

In summary, the initiative was successful in introducing high school students to the fundamentals of artificial intelligence. The principles involved as well as the expanding significance of AI were clearly understood by the students. As a result of the weekly teaching units, they are now familiar with a variety of subjects, and they will gain from the knowledge they have gained in the future whether they compete in robotics competitions or begin their

university studies in engineering or the sciences. Data, interview- guiding questions, and questionnaires are accessible upon request.

## **Conclusion**

In this study, we described an educational initiative that teaches essential ideas in computer science and artificial intelligence (AI) to high school students (grades 9-11). In the spring of 2015, we carried out and empirically assessed a pilot experiment in a representative high school with nine willing participants. Major AI topics were covered in weekly courses taught (theoretically and practically) by university academics. According to the prior knowledge and educational background of the students, the content was modified and organised. Results showed that students have a good understanding of the range of subjects covered in the instructional units. Although the first pilot project was a success, there were several drawbacks and issues that needed to be resolved moving forward. These included insufficient instructional units, a limited sample of participating students, varying expectations of the students before to the course, and overly demanding homework assignments. Additional data analysis is currently being done, and it will be shared later along with a thorough explanation of the course's structure and contents. Results and insights from the pilot project serve as the foundation for modifying and enhancing the current AI course. In the next years, we intend to carry out the initiative in additional high schools as we work toward our long-term objective of incorporating AI into high school science curricula and promoting "AI literacy."

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## EMOTIONAL INTELLIGENCE IN LEADERSHIP: THE KEY FACTOR TO CREATING CREATIVE ORGANISATIONAL CLIMATE

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### **Abstract**

The concept of emotional intelligence has received much attention in the business literature as a factor that can help predict an individual's performance in the workplace, and understanding and using it can lead to emotional intelligence. Creating a competitive environment to achieve sustainable competitive advantage. Maintain an organizational culture that enables and actively supports creativity by incorporating emotional intelligence competencies such as employee self-awareness, commitment, optimism, interpersonal relationships, and personal integrity. Today, business organizations recognize that they are focusing on the human side, addressing the emotional side of human resources to improve organizational performance in this ever-changing and increasingly demanding business environment. We use human resources as a powerful tool to ensure effectiveness and success. Recently, some Indian business organizations have started to focus on the emotional aspects of human resources, dealing with non-cognitive human abilities and abilities that have a significant impact on different aspects of an organization's climate and effectiveness. This paper examines the power of emotional intelligence in leadership influences the creative organizational climate creation in organizations in India. This suggests that it has a lot to do with self-awareness. Commitment, resilience, and interpersonal connectivity have predictive relationships with leadership effectiveness, communication, stress management, and trust levels among organizational members.

**Keywords:** emotional intelligence, organizational climate, leadership effectiveness, communication, stress management, trust.

### **Introduction**

Businesses today no longer compete based solely on products and services, but rather on how well companies manage their employees. Employees are the key conduits for customer satisfaction. An organization's success depends on the skills and motivation its employees bring

to the workplace. Over the past two decades, the term EQ has gained much attention as a key factor in helping us understand and predict an individual's performance in the workplace. It is widely recognized that emotional intelligence deserves special attention and requires training and education. Emotional intelligence is undoubtedly an important concept, both from an individual perspective and from an organizational effectiveness perspective. The concept of emotional intelligence is to make our emotions intelligent, or use our intelligence to manage them. As Aristotle pointed out, the problem is not the emotionality, but the validity of emotions and their expression (Goleman, (1995); David Wechsler (1943) argues that non-intellectual abilities predict success in life. According to A.S. Reber (1985), a practical interpretation of intelligence is "what intelligence tests measure, i.e. IQ." If there is relevant emotional content, for example if there is a high level of interpersonal interaction, then a 'practical definition' would be a person's EQ score (Bardzil and Slaski, 2003).

The objective of the study is to develop a framework to identify the relationship between organizational climate and emotional intelligence competencies of executives in Indian banking and insurance organizations. The study conceptualized emotional intelligence and its eight dimensions, that is, self-awareness, commitment, emotional resilience, optimism, compassion, interpersonal connection, personal integrity, and emotional regulation as related to components of organizational climate that is, leadership effectiveness, communication, stress management and trust.

### **Literature Review**

An individual's ability to properly identify, recognizes, and manages their emotions to achieve their own well-being and that of others is called emotional intelligence. On the one hand, negative emotions such as anger, fear, frustration, resentment, guilt, depression, loneliness, failure, and lethargy require emotional management and regulation to reduce their negative impact on the organizational environment increase. On the other hand, positive emotions that can be used productively and beneficially to create and maintain a positive or favourable work environment are motivation, gratitude, contentment, happiness, contentment, freedom, and peace (Singh, 2001).

There is ample data to suggest that emotional intelligence is as powerful as IQ or pure intelligence, and sometimes more influential. Some scholars argue that experience and education cannot significantly change IQ. You can learn and improve important emotional skills.

According to P.T. Joseph, SJ (2007) “Our emotions are a form of direct experience. When we experience emotions, we are in direct contact with physical reality. Our emotions are a form of energy, they are physical.

BardzilandSlaski (2003) suggested that developing emotional intelligence or EQ within an organization can improve the quality of customer service experience. The result is improved employee engagement, increased productivity and profits to help you meet your company's goals.

According to P.T. Joseph, SJ (2007) “Organizations are as effective as their leaders. Emotionally Intelligent Leaders inspire employees to do more and achieve more in the marketplace”.

Forhand and Gilmer, 1964, identified four dimensions of organizational climate that is, size, structure, system complexity, leadership styles and goal direction (James and Jone, 1974).Fredrikson, 1968, proposed that “closeness and supervision” (Leadership process) and “rules and regulations”(structure and control process) as key variables of organizational climate. According to Denison, (1990), an organization climate that encourages employee involvement and empowerment in decision making predicts the financial success of the organization.

Ansari, 1990, used a modified version of Litwin and Stringer’s climate scale consisting of 30 items. A factor analysis led to the identification of three major factors or dimensions of organizational climate (Sinha, 1995);(1)Reward and Participation, (2)Structure, and(3)Warmth and Support.Those employees who rated their organization high on these dimensions were assumed to consider the organization climate favourable and those who perceived their organization low on these factors felt that the organizational climate was unfavourable (Sinha, 1995).

## **Theoretical Background**

### **Impact of Emotional Intelligence in Leadership**

Efficiency and timeliness are two paradigms on which leaders judge their employees’ performance. However, these parameters stifle the growth and productivity of employees in the long run. It also leads to employees quitting the organization and finding new opportunities that promote growth and independence.

The most effective leaders consider emotional intelligence a critical skill to recognize and solve their team members' problems. That's why emotional intelligence is an important part of many leadership styles. Emotional intelligence in leadership is referred to as the ability to understand and manage one's emotions, as well as recognize and control others' emotions and perspectives. The term is believed to be first used in 1990 by researchers John Mayer and Peter Salovey. However, it has gained popularity in the recent decade with the advent of leadership roles.

Many leaders have good technical and communication skills, but lack emotional intelligence. When a leader sets the tone for an organization, emotional intelligence becomes an integral part of her set of skills. Organizations led by executives who lack emotional intelligence cannot navigate the tides of a complex business environment. This is why emotional intelligence is important:

- Emotional intelligence develops a positive work culture in an organization that indirectly increases efficiency and productivity.
- Inspires growth, innovation and creativity in organizations and team members.
- Motivate team members and leaders to always do their best.
- Emotional intelligence helps managers and employees make the right decisions during difficult times.
- Builds strong bonds between leaders and their teams.

### **Components of emotional intelligence in leadership**

1. Self-awareness : It relates to the ability to understand one's own strengths and weaknesses. Additionally, self-awareness empowers leaders to control their emotions and helps them understand the complex emotions that affect her members on the team. Additionally, leaders should be aware of their ability to lead and control their teams. It helps you make informed and profitable decisions that bring prosperity to your company and drive the personal growth of your team members. There is no litmus test to determine if a person is confident, but 360-degree feedback is the best way to gauge a leader's confidence quotient. Additionally, being aware of your own behavior is another way to check your self-esteem index.

2. Self-management : Self-management is a key component of emotional intelligence that plays a key role in difficult business situations. This refers to a leader's ability to manage emotions in difficult situations. It also refers to the positive attitude that a leader maintains in the face of

adversity. Self-management is therefore an essential and inevitable part of leadership style. It provides leaders with ways to deal with difficult situations. Additionally, it teaches how to react to adversity with an emphasis on peace of mind and a calm demeanor.

3. Social Awareness: Business organizations do not operate in isolation. Therefore, leaders must be aware of the business environment. In addition, it helps in formulating business strategies and implementing plans to adapt employees to different market conditions. However, social perception is not limited to external factors. It also refers to a leader's ability to understand and manage the emotions of people acting within an organization. Therefore, socially conscious leaders exercise empathy. It helps you understand the perspectives and feelings of others, enabling effective communication and collaboration. Interestingly, empathy is a key leadership skill used by leaders in various industries. Experts believe that empathetic leaders are effective and influential because they understand human behavior and cognition.

4. Relationship Management: Relationship Management consists of skills embedded by a leader to assist the leader in taking an active role in conflict resolution, mentoring, influencing and mentoring her members of the team . It also refers to a leader's ability to prevent conflicts and misunderstandings within an organization. Employees prefer companies with less conflict because it increases job satisfaction and growth. Maintaining peace between all parties in an organization is therefore one of the primary responsibilities of a leader. To improve emotional intelligence, leaders must learn these elements. The Emeritus India Leadership Course helps leaders understand and practice these elements. It also equips you with the skills to tackle difficult business problems. So, to learn more about leadership emotional intelligence and other skills you need to become a great leader, enroll in our accredited courses offered in partnership with leading educational institutions.

### **Implications of Study**

Employees must be sensitized on emotional competencies and imparted with emotional intelligence training programmes to work on the competencies that are most pressing. Corporate world should lay greater emphasis on inculcating personal integrity among employees by focusing on training employees to act consistently and congruently with their moral values and principles. Interpersonal connectivity among employees must be strengthened by inculcating ability to build strong network of cooperative and mutually beneficial relationships among employees. Service orientation should be emphasized among employees

to understand needs and concerns of others to develop compassion for each other. Business organizations must focus on building high trust levels among the employees to prevent escalation of negative emotions that may cause or increase distrust among employees and lead to unfavourable organizational climate by imparting emotional intelligence abilities like optimism and compassion which are found to be significant predictors of trust levels among employees. This will improve trust levels and cooperation among employees resulting in the creation of positive organizational climate. The current study supports the proposition of incorporating emotional intelligence training and development programmes to develop and enhance leadership effectiveness. Organizations must pay immediate attention to develop effective leadership to gain sustainable competitive advantage, by incorporating competencies like self-awareness, commitment, optimism and personal integrity which are found to be significant predictors of leadership effectiveness and enable managers to deal with diverse work force, resolve conflicts, inspire employees to work towards common goals and reinforces effectiveness in decision making process. Developing and enhancing emotional intelligence competencies of interpersonal connection, self-awareness and optimism will help employees to face constant pressures, conflicts and limits and thereby making the organizational climate favourable and positive. This study suggests that emotional intelligence intervention will improve and enhance communication among employees and team learning on one hand. And by inculcating emotional intelligence competencies of interpersonal connection, resilience, optimism and self-awareness, will enable employees to communicate positive emotions through verbal and non-verbal mediums and create positive organizational climate of open and clear communication on the other hand. Today imparting emotional intelligence training as a part of continuing learning and development programme in organizations is of utmost importance. The comprehensive knowledge of emotional awareness and management must be intrinsically imbibed in the constant learning process of employees at all the levels. Regular investments in emotional training programmes will result in creating a positive service climate, in which empathy, open communication and customer consciousness proliferates among employees and this in turn will lead to better business results. And most of all, emotional intelligence competencies should be incorporated in the curriculum of business graduates to prepare them for future responsibilities and challenges.

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## METaverse AND MARKETING STRATEGIES OF LUXURY BRANDS

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**Abstract:** Metaverse is a concept of a virtual world consisting of AR & VR technology which put the virtual world, feel like a real one, Metaverse gave birth to a new type of commerce called V-Commerce (Virtual Commerce), which is very helpful for leading luxury brands, other tech giants to promote their products very easily, in metaverse a 3-D avatar of the real human will be given, along with a virtual place, where that character can play, sing, business, study, with other 3-D avatars available that time in that virtual world, leading tech giants are building this into next level using haptic touch, haptic gestures, i.e. a full body metaverse technology which will increase the user experience in the virtual world, luxury brands like, Gucci, Balenciaga, Nike, all are created their own virtual products in the metaverse for the v-Consumers (Virtual Consumers), in this paper researcher analyse how leading luxury brands using metaverse to earn real money from the virtual world, and also analyses their marketing strategies to promote their products in the virtual world. For this researcher uses secondary data collected from previously published research articles, theses, and journals. The author concludes that this emerging virtual technology will be the future of marketing technology, where the products buy and sell in the virtual world. Luxury brands strongly created their platform in the metaverse and made huge profits by selling virtual products for real money. Unlike real products, virtual products don't require raw materials and time, this is a key strategy for their huge profits, when talking about their marketing strategies, they promote their virtual products through games, and other popular metaverse platforms, where they can easily sell their virtual products.

**Keywords:** Metaverse, Virtual World, V-Commerce, Luxury Brands, Marketing Strategy.

**Introduction:**

A single, shared, immersive, permanent, 3D virtual realm where people may experience life in ways they couldn't in the real world is what many in the computer industry refer to as the "metaverse." While some of the technologies that allowed access to this virtual world, like virtual reality (VR) headsets and augmented reality (AR) glasses, are developing quickly, other essential elements of the metaverse, like sufficient bandwidth or interoperability standards, are probably years away from becoming a reality or may never become one. The idea is not brand-new, While the development of the technology that supports an internet based on virtual reality has been ongoing for decades, novelist Neal Stephenson first used the word "metaverse" in his science fiction book Snow Crash in 1992.

The term "Metaverse" gained popularity when Facebook announced intentions to invest at least \$10 billion in the idea in 2021 and changed its corporate name to Meta. Tech behemoths like Google, Microsoft, Nvidia, and Qualcomm are also investing billions of dollars in the idea in addition to Meta. By 2030, the metaverse economy, according to the management consulting firm McKinsey & Company, might be worth \$5 trillion. In addition to gaming, entertainment, education, and marketing in the metaverse, e-commerce is predicted to be the main engine. The phrase is being used by businesses to describe a wide range of improved online experiences.

These include virtual changing rooms and virtual operating rooms, as well as online video games like Fortnite and budding virtual workplaces like Microsoft's Mesh or Meta's Horizon Workrooms. The contemporary metaverse is taking the form of a multiverse, which consists of several metaverses with limited interoperability as businesses compete for market share, rather than a single common virtual place. There has been some reaction due to the naive enthusiasm for the metaverse and profound doubt about how it will turn out. Industry observers have questioned whether or not the metaverse would eventually differ significantly from the digital experiences we already enjoy, or if it will, whether or not the general public will be eager to spend hours each day in a headset traversing virtual space.

**Metaverse and its uses:**

The development of immersive virtual worlds has been a staple of the online gaming industry for decades. And to the degree that a proto-metaverse has a widespread use, the

enormous audiences that swarm to sites like Roblox, Epic Games, and Decentraland, albeit not simultaneously, imply that creating video games, virtual worlds, and real estate investing may be it. Businesses are experimenting with metaverse apps at work that expands on the virtual programmes they introduced to facilitate remote work during the epidemic. Workplace training is one of the first metaverse technologies to be used. According to TechTarget news reporter Esther Ajao, some hospitals are already employing VR and AR to teach staff members about routine medical operations.

Medivis, an AR surgical system that enables surgeons to swiftly sync with a hospital's digital imaging system, is one device that has just received FDA approval.

**Digital twin avatars:** In addition to being on computer screens, these twins will also be created as AI-powered holograms or holographic images that perform certain duties, according to Ajao. A CEO, for instance, may activate a hologram of himself powered by AI to interact with many stakeholder groups simultaneously.

**Metaverse for work collaboration:** According to Forrester researcher J.P. Gownder, businesses are beginning to employ the metaverse to give remote work situations "an aspect of reality." This includes putting up 3D spaces for teamwork among staff.

#### **NFT in Metaverse:**

The utility and appeal of the metaverse are expected to be greatly influenced by non-fungible tokens (NFTs). NFTs are a safe category of digital assets built on the same blockchain technology as cryptocurrencies. An NFT can stand in for a work of art, music, or digital property instead of money. An NFT provides the owner with a form of digital deed or ownership evidence that can be traded or purchased in the metaverse.

The first virtual real estate enterprise in the world, according to Metaverse Group. It serves as an intermediary to make land or property rentals and purchases possible in a number of metaverse virtual worlds, including Decentraland, Sandbox, Somnium, and Upland. There are business and meeting venues, art galleries, private residences, and "hangout locations" available.

Established brick-and-mortar businesses are also getting involved, even if the metaverse has opened doors for new businesses like Metaverse Group to sell digital items. For

instance, Nike recently bought RTFKT, a firm that creates unique digital artefacts and virtual footwear utilising NFTs, blockchain authentication, and augmented reality. The RTFKT website stated that the company was "founded on the metaverse, and this has shaped its vibe to this day."

### **Popular Metaverse Companies:**

**Meta:** CEO Mark Zuckerberg announced the rebranding in October 2021, saying, "From now on, we will be metaverse-first, not Facebook-first." This is a significant shift since it implies people won't eventually need a Facebook account to access other metaverse services. Among other non-Facebook goods, Meta has already sold millions of its Meta Quest VR headset units for exploring the metaverse (formerly known as Oculus). In the Meta announcement, Zuckerberg stated that the business hopes to hasten the development of the key technologies needed to "bring the metaverse to life," including social platforms and creative tools. After the rebranding announcement broke in the latter half of 2021, Meta released Horizon Worlds, a VR environment that users may explore as an avatar and which also includes tools for developers to build new virtual worlds. Investors view Meta's substantial investment in the metaverse as a risk given the company's revenue reductions and layoffs in an unsteady economic climate.

**Epic Games:** Following a \$1 billion investment round in 2021, Epic Games, the company behind the immensely successful online shooting game Fortnite (which boasts 350 million users) and the game development tool Unreal Engine, intended to establish a claim in the metaverse. \$200 million of it came from Sony Group Corp. In contrast to Meta, Epic Games seeks to create a community where users can connect with companies and one another without a news feed full of advertisements.

**Microsoft:** Microsoft Teams, the software giant's alternative to Zoom for online meetings, is getting the metaverse. Users of the new service may participate in shared, collaborative holographic experiences during virtual meetings from various physical locations. The platform comes with a number of AI-powered tools for avatars, session management, spatial rendering, user synchronisation, and "holoportation," a 3D capture technique that enables users to rebuild and transmit high-quality 3D models of individuals in real-time. The software behemoth

debuted a technology that allows users to build and utilise avatars in place of live video during Teams meetings in private preview at its October 2022 Ignite conference. Microsoft is collaborating with professional services company Accenture to develop immersive rooms that support Mesh. Every year, Accenture employs over 100,000 individuals, and Microsoft Mesh aids with the onboarding process. To learn how to establish a digital avatar and access One Accenture Park, a shared virtual environment that is part of the onboarding process, new recruits meet on Teams. A central meeting room, a virtual boardroom, and digital monorails that new employees utilise to access other displays are among the futuristic amusement park-like features of the area.

### **Benefits of Metaverse for Luxury Fashion Brands:**

We all know that the fashion business sets trends and should never be left behind as society develops. It's also not surprising to see fashion manufacturers adopting new technologies, notably non-fungible tokens, and experimenting with new mediums since the metaverse is now swiftly taking shape. Here are a few explanations for why forging a successful path into the metaverse is possible:

**Massive Margins:** To put it simply, switching to all-digital collections relieves designers of a lot of hassles. They are no longer concerned about difficulties like locating factories and skilled labour, obtaining raw materials, or storing goods. Couture designs can take weeks or even months to construct, making fashion a famously labour-intensive profession. On the other hand, digital designs may be created in a matter of minutes. Creators may drastically reduce their expenditures and more effectively concentrate their creative efforts by adopting a virtual strategy.

**Secondary Market profits:** Just as selling virtual fashion can result in large profits, there is another compelling incentive to explore the metaverse with fashion NFTs. These coins are based on smart contracts, which govern the terms and conditions of the underlying digital asset. More crucially, this implies that a brand may incorporate a royalties-related code so that they collect a piece of the transaction every time a virtual garment changes hands.

**No Inventory or Oversupply:** Overproduction, over-inventory, and end-of-season stock are all common issues for fashion firms. As a result, corporations must scurry for tactics to swiftly

dilute inventory before the start of the following season, including imposing large discounts on their products and limiting susceptibility to logistical delays such as those recently faced during the Covid-19 outbreak.

**Innovation & Creativity:** In many respects, fashion is about everything but the clothes and accessories themselves. The industry is built on creative processes, freedom of expression, personal happiness, and the message our choices give to others around us. Having said that, it's still difficult to confront real-world restrictions to innovation because designers can't precisely make items that defy gravity, fabric limitations, or material durability, which limits the sorts of things that can be manufactured.

**High Personalization:** As part of the consumer experience offered by the metaverse and the technology that enables it, we can now access fashion that is tailored to us, as individuals, rather than the masses. This personalization function offers enormous value in a market that is becoming increasingly customer-centric, with many of us yearning for one-of-a-kind clothes.

### **Top Luxury Brands using Metaverse and their Marketing strategies:**

- 1. Gucci:** Gucci, as one of the first metaverse movers, has launched a variety of projects that have catapulted the Italian luxury brand to new fashion heights. Gucci debuted its first NFT-related effort in May of last year, with a film inspired by its Aria line. The title was later auctioned as part of the Christies-led auction 'PROOF OF SOVEREIGNTY: A Curated NFT Sale by Lady Pheonix,' in partnership with digital artist Lady Pheonix. Roblox players may explore the Garden's immersive themed areas, as well as try on and purchase Gucci NFTs to wear inside the game. The engagement was so successful that a virtual version of Gucci's famed Dionysus bag sold for a record-breaking \$4,115, exceeding the real-world equivalent. Since then, the legendary luxury company has continued to explore virtual worlds, gaming, blockchain, and NFTs. It has created NFTs in partnership with toy manufacturer Superplastic and the narrative NFT project 10KTF, and it has lately revealed intentions to grow the premium brand's metaverse and gaming initiatives.
- 2. Louis Vuitton:** Last year, to commemorate the 200th anniversary of founder Louis Vuitton, the iconic French fashion brand created a smartphone game in collaboration with digital artists Beeple. In 'Louis the Game,' gamers gain insight into the historic company by

following the game's protagonist, Vivienne, around seven distinct virtual landscapes inspired by real-life prominent fashion cities like London, Paris, and Munich. Players could also personalise their avatars with a broad range of LV prints, while postcards and other artefacts popped up throughout the game, revealing the history behind the iconic luxury home. Collecting monogram candles unlocks higher levels. This mobile game originally came with 30 embedded NFTs, ten of which were developed by Beeple. Since then, Louis Vuitton has consistently given out improvements, including new non-fungible tokens, to keep its over 2 million users interested. As for the tokens, they were never supposed to be sold in the open market as indicated by Louis Vuitton's CEO, Michael Burke who noted: "This is not a commercial experience, but a pedagogical, instructive experience that must be exciting, emotive and dynamic".

3. **Nike:** Nike has gone all-in on the metaverse, launching a series of digital-only initiatives that leverage blockchain and web3 technologies. With the debut of Nikeland on Roblox last year, the sportswear giant established a virtual presence in the metaverse. This metaverse area, built like the company's real-life headquarters, comprises Nike buildings, arenas and locations where users may compete against each other in a broad assortment of mini-games, including dodgeball and 'The Floor Is Lava'. Users of Roblox may also make their own collections and games using interactive sports resources. Nike's virtual showroom features vintage clothing and footwear such as the Air Force 1, ACG, Nike Tech Pack, and Nike Blazer. According to Roblox, Nikeland has been visited by over 21 million players and has been favoured by about 118,000 gamers. Furthermore, Nike produced a collection of 20,000 NFTs nicknamed the "Cryptokicks" earlier this year, with a collector paying \$130,000 for only one pair. In addition, the sports gear company has been busy filing a flurry of patents outlining future intentions to develop and sell additional NFTs in the metaverse. The wager has already paid off. Nike Digital, which includes metaverse activities, was raking in a fourth of the brand's overall income at the start of 2022. Nike has generated \$185.3 million in income from its NFT collections because of its digital strategy, which included the acquisition of digital design company RTFKT.
4. **Adidas:** Adidas published Into The Metaverse, a 30,000-piece NFT collection in December 2021, in conjunction with the Bored Ape Yacht Club, pixel vault's PUNKS comics authors, and crypto investor Money. The tokens combined the digital and real worlds, with customers able to acquire not just the NFTs but also the tangible apparel that accompanied them. The

virtual items may be used on The Sandbox, a metaverse-like platform, alongside tangible goods such as tracksuits, hoodies, and Gmoney's characteristic orange beanie. The crypto exchange Coinbase secures all digital assets, and the venture is part of the sporting lifestyle trademark Adidas Originals.

5. **Balenciaga:** Balenciaga is bringing its signature clothing to an avatar near you, direct from Paris Fashion Week. The luxury label was the first to produce an NFT capsule collection in the videogame Fortnite, a very popular virtual environment where players may design their own games, in 2021. As a result, users may visit the Fornite x Balenciaga store and purchase virtual Balenciaga products such as the Hourglass Bag Glider and the Speed Sneaker Pickaxe. They may also select from a range of avatar skins and accessories. These virtual wearables may be utilised in a variety of gaming styles. Real-life fashionistas, however, need not fear since Balenciaga has also created a limited-edition range of actual items, such as sweatshirts, shirts, jackets, and hats with Fortnite and Balenciaga emblems. According to the company, the search traffic for Balenciaga virtually quadrupled after the publication of this collection of virtual outfits. And, as the metaverse segment becomes a more important emphasis for Balenciaga, the fashion company has announced intentions to develop a metaverse business unit in the near future.
6. **Zara:** Zara is no stranger to cutting-edge technology. In 2018, the Spanish fashion conglomerate began experimenting with augmented reality, publishing an AR app and installing AR displays in 120 locations across the world. Zara has only increased its metaverse efforts since then. It collaborated with Zepeto, a South Korean metaverse with almost 300 million members, and fashion collective Ader Error last year to present its current collection in a virtual environment. As part of its Lime Glam promotion this year, it launched a variety of virtual apparel and cosmetics. The limited-edition collection included virtual clothing and makeup that users could not only use to decorate their Zepeto avatars but also wear in real life since Zara also issued tangible items. Makeup and accessories such as jumpsuits, jackets, and trousers, as well as a nail polish range and an eyeshadow palette, were among the most popular goods. In addition to the campaign, Zara introduced a new Snapchat account where users may access exclusive AR filters.
7. **Dolce Gabbana:** Dolce & Gabbana, known for its feminine and beautiful aesthetic – as well as daring catwalks – is looking to create a mark in the metaverse with NFT collections aimed at pushing the frontiers of fashion even further. Collezione Genesi, a series of nine NFT

items inspired by the Italian luxury maker's Venice display, was published in 2021. It eventually sold for a whopping \$6 million, much above the cost of genuine Dolce & Gabbana clothes. With another Dolce and Gabbana collection replete with 20 entire looks of wearable NFTs, creators Domenico Dolce and Stefano Gabbana have kept producing part-NFT, part-physical outfits to enhance fashion aficionados' metaverse wardrobes.

- 8. Dior:** As the metaverse remains a popular issue among fashion designers, Christian Dior has chosen to test the waters in a Chinese metaverse by entering XiRang, a virtual world controlled by Chinese search engine giant Baidu. The "Meta Ziwu" interactive experience encouraged spectators to visit a virtual realm where Dior's Fall 2022 menswear collection was on show. This follows from previous explorations into the metaverse. In 2021, the Parisian fashion brand had previously cooperated with South Korean metaverse Zepeto to produce a collection of digital cosmetics styles, as well as with the platform Ready Player Me to advertise a Dior scent.

### **Conclusion:**

From the above analysis of secondary data, authors conclude that metaverse is highly efficient and it is emerging in many fields such as education, healthcare, marketing, finance and HR, luxury brands started using metaverse effectively to gain more profits with minimal efforts, and this strategy is a pioneer one and they created a path for others to involve themselves in the metaverse world, the marketing strategies followed by the major luxury fashion brands are remarkable in gaining profits and attracting consumers in various metaverse virtual world like horizon world, Fortnite and other gaming virtual world. In a nutshell, the metaverse technology is a boon for all the luxury brands to showcase themselves in a virtual world with high precision and perfection, an easy way to earn more profits with less man power, all these factors made metaverse technologies used by luxury brands a grand success in the future.

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## **THEORETICAL FRAMEWORK ON SIGNIFICANCE OF WORK PLACE DIVERSTY, EQUITY & INCLUSION**

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Theoretically DEI seems to be a very simple concept but Practical Implementation of DEI is very tedious. It has been the basis for countless obstacles for companies in the preceding years. Every day companies are struggling hard for managing to resolve the seamless implementation of DEI into everyday practice but still it's in vain. In the recent years quite a few workplaces are getting better with diversity but equity and inclusion are still challenging for execution. Only very few organizations have come up well with DEI together. Diversity can be expressed in different forms, it acts on embodiment of acceptance and also it serves as an substantial part of a company's culture.

**KEYWORDS:** DIVERSITY, EQUITY, INCLUSION, EMBODIMENT, COMPANY CULTURE.

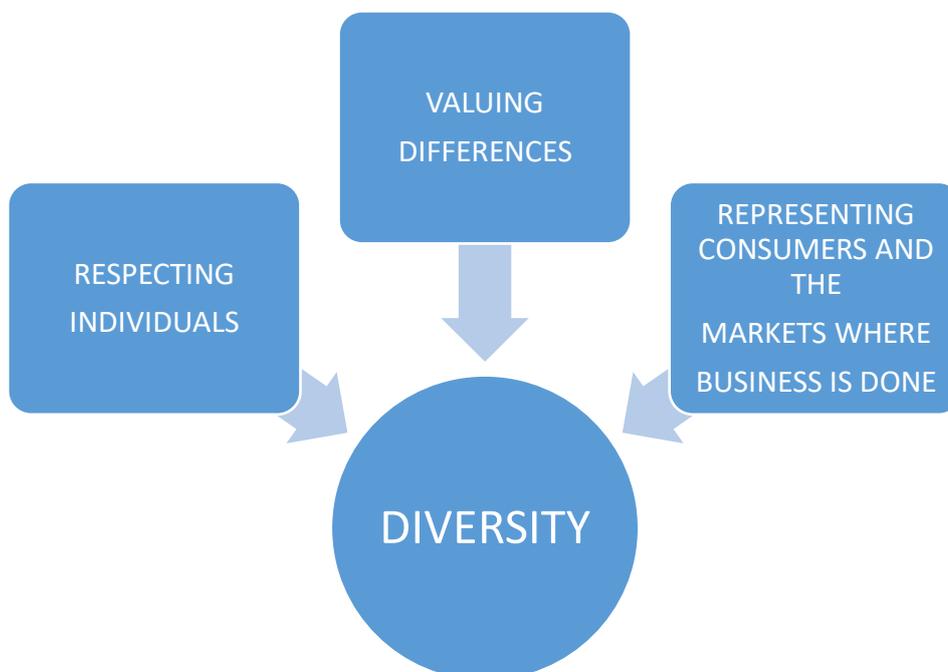
### **INTRODUCTION**

Diversity, equity and inclusion plays a predominant role for creating and maintaining a successful workplace. Usually, it is referred to people who are different from the rest of the dominant groups. In the recent scenario quite, few organizations are gradually trending towards a more diverse employees. the characteristic of the workplace is stated as diversity. This is done by putting the effort for sourcing, recruiting and hiring the persons from different groups

.therefore diversity in the workplace can be termed as employees bringing a wider pool of skills and abilities to the organization.

## DIVERSITY

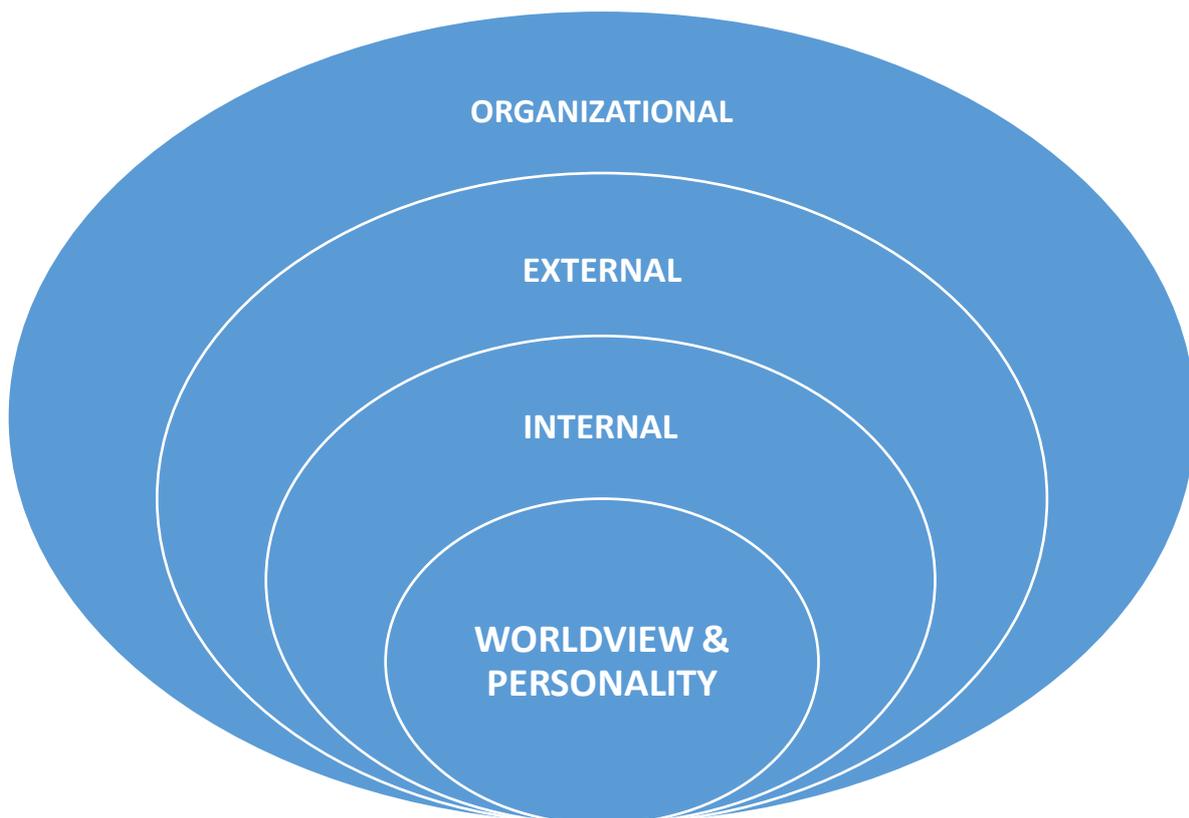
The ideology of diversity is based on an individual's respect and acceptance. It is an understanding that each individual is unique and different. Diversity arises through age, gender, ethnicity, race, education, physical ability, sexuality etc. Hiring people of different genders, who possess unique human qualities or who belong to various cultural and ethnic groups are broadly termed as workforce diversity. A diverse workforce is a reflection of a changing world and marketplace. Diverse work teams are proved to bring high value to organizations. More opportunities can be created for professionals and personal growth of the employees if cultural diversity is evident in an organization. In short, diversity concerns with the make-up of the work place.



Diversity is at the heart of all businesses. Companies strive to create a work environment that provides all their associates with equal access to information, development and opportunities. By building an inclusive workplace environment: they seek to leverage their global teams and associates, and make them rich in diverse people, talent and ideas. Companies must seek diversity as more than just policies and practices.

### **LAYERS OF DIVERSITY IN THE WORKPLACE**

Workplace diversity can be categorized into four distinctly different dimensions. All of the subsequent types of diversity falls under these dimensions.



### **BENEFITS OF DIVERSE WORKPLACE**

The work force community is more likely to identify with and relate to companies that reflect their level of diversity. Workplace diversity works at its finest when staff are encouraged to work in areas where they are given to opportunities to showcase their strengths and capabilities and employees give preferences to companies who value diversity where staff potential is recognized and developed.

A diverse workforce can promote economic growth. It can capture a greater share of consumer market. Recruiting from a diverse pool of candidates means a lot more qualified workforce. Moreover, it has been proven numerous times that diversity fosters a more creative and innovative workforce.

Diversity in the workplace is necessary to create a competitive economy in a globalized world and it is needed to leverage companies' full potential. It paves the way for a wide range of ideas and experiences and also provides variety of talents within an organization.

## **MANAGING DIVERSTY**

Diversity can be managed by planning and implementing organizational systems and practices to manage people so that the potential benefits of diversity are exploited, while its potential shortcomings are minimized. A diverse workplace is intentioned to create an inclusive culture that values and uses the capabilities of all its employees.

Managing diversity is partly ensuring that no group is being disadvantaged. diversity brings benefits and also challenges. It is the responsibility of the hiring managers.

## **CONCLUSION**

Diversity plays a predominant role in the workplace because an all-welcoming environment is created for the employees so that they feel more valued, as a result they would be inclined to be dedicated to their work and organization. To conclude with, diverse companies will attract ambitious and high caliber professionals where everyone is benefited as the diverse work place includes employees from different backgrounds and with various types of experiences.

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## EATING BEHAVIOR IDENTIFICATION OF STUDENTS USING MACHINE LEARNING AND SPSS ANALYSIS

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### ABSTRACT

Identification of unhealthy eating patterns are a significant public health problem with recent economic and health consequences. Although many dietary preferences are formed early, the transition to independent living during the university years is a significant event because as people mature, they become more capable of making their own eating decisions. This study's objective was to use a questionnaire to assess eating patterns in relation to students' sociodemographic factors. One hundred students completed matched questionnaires describing pronounced snack intake, eating intentions, and a healthy diet. This study looks at how women and babies should eat, and it uses Google Docs to describe and analyze the facts about food intake. Through examining the content of documents pertaining to eating behavior, particularly with regard to fruits, milk, vegetables, and fast food, a series and evaluation of information has been provided. The findings of this investigation may be utilized to make recommendations regarding how to measure students' drinking habit in relation to their health using IBM SPSS Statistics 21.0's machine learning based k-means cluster evaluation.

**KEYWORDS – Machine Learning, Questionnaire dataset, Behavior Identification, K-means clustering, SPSS.**

### 1. INTRODUCTION

Extra nutrients and strength are provided by a meal. In addition to the nutrients found in food, other chemicals are also present and their effects on health are also becoming more recognized. The relationship between foods, vitamins, and dietary habits has important

ramifications, particularly for the prevention and development of chronic diseases like diabetes, cancer, chronic breathing illnesses like chronic obstructive pulmonary disease, and cardiovascular diseases like heart attacks [2]. Food options continue to evolve throughout life as a result of biological, social, and environmental influences. These possibilities are important influencers of food preferences and, consequently, diet.

Since this is the best time in a child's life to introduce healthy eating habits and dietary advice that will benefit them in the future and also improve the general fitness of a girl infant as well as the future adult population, puberty is the ideal time to make dietary decisions and implement changes as a result. During this time, a new set of weight-related behavioral patterns including excessive alcohol intake and poor levels of physical activity start alongside bad food habits. Although breakfast is thought to be the most significant meal of the day, gender seems to have a big impact. The survey tool used to gather data was a 20-item nutrition questionnaire, which not only included the aforementioned socio-demographic factors but also a series of multiple-choice and open-ended questions that assessed different eating habits of the students, in terms of the type and frequency of the food consumed. The poll was voluntary for students to take part in, and all replies were kept confidential.

## **2. LITERATURE OVERVIEW**

One of the key activities that may have a negative impact on young adults' weight status and, as a result, adults' future health is physical inactivity and bad eating habits [3,7]. Recent years have seen research on eating behavior in kids [17], teens [18,19], and young adults [20], although theories to explain such behaviors are still in the early stages of development [21]. Internalizing and practicing daily healthy eating habits are also necessary for maintaining a healthy diet. Due to this, the analysis that follows concentrates on the impact that age and gender identity play in aiding or impeding. Because of their poor eating habits, college students who have trouble sleeping may find it difficult to succeed academically. Short-sleepers were shown to have a five-fold higher risk of exhibiting abnormal eating behaviors than long-sleepers in a study evaluating the connection between habitual sleep duration and eating disorders in students (Hicks and Rozette, 1986). In terms of both health and health care costs, poor nutrition and obesity are two of society's most pressing health challenges today (Goel, 2006; Rashad & Grossman, 2004).

Taste, cost, nutrition, convenience, enjoyment, and weight control are the top determinants of adult food choice, according to several studies (Glanz, Basil, Maibach, Goldberg, & Snyder). This research looked at avoiding dieting, eating and exercising, and diabetes pupils, in that order. Numerous research has indicated that unhealthful eating habits are common among students. Students typically consume fewer daily servings of fruits and vegetables and report eating a lot of high-fat, high-calorie items (Brevard & Ricketts, 1996; Driskell, Kim, & Goebel, 2005; Racette, Deusinger, Strube, Highstein, & Deusinger, 2005). Inadequacies in several areas, such as diet A, nutrition D, foliate, zinc, and diet B12 shortages [9]. The bulk of these research have shown that a vegetarian diet mostly consists of fruits, legumes, vegetables, and cereals, with occasional additions of dairy, eggs, and meat. Contrarily, cluster analysis classifies people into dietary groups based on similar patterns of meal consumption. Additionally, cluster evaluation supports the use of both continuous and specific variables [17].

### **3. EXPERIMENTAL RESEARCH METHODOLOGY**

In order to develop a nutrient-specific intervention, we decided to look at the dietary preferences of baby girls in light of the aforementioned gaps. Obesity is the biggest concern for pupils. Teenagers who attend school want to be in good physical shape. Children who go to school typically want to become more conscious of healthy eating practices. The chief minister of Tamil Nadu, MK Stalin, introduced a free breakfast program for government primary school kids as part of an intervention to promote maternal, baby, and nutrition. The present observation was used as a component of the formative assessment to explain this initiative. The nutrition plan was created based entirely on research showing that the majority of children suffer from nutritional inadequacies.

#### **3.1 SIGNIFICANT EATING BEHAVIORS AMONG STUDENTS**

##### **3.1.1 Family Dinners**

Both parents and children find solace in the routine of eating meals together. Family meals are predictable for youngsters, and parents get an opportunity to catch up with their children. Children who participate in regular family meals are also more likely to consume grains, fruits,

and vegetables. Less inclined to indulge in unhealthy snacks. Additionally, family meals give parents a chance to model good eating for their children and introduce them to new cuisines. Teenagers may object to the idea of a family lunch, which is understandable given their hectic schedules and desire for independence.

### **3.1.2 Buy Healthy Foods in Bulk**

Children, especially smaller ones, will typically consume anything is in the house. Controlling the supply lines—the items you provide for meals and keep on hand for snacks—is crucial for this reason.

- Incorporate at least five servings of fruits and vegetables into the daily schedule. Every meal should include fruit or veggies. By keeping fresh fruits and vegetables on hand and ready to eat, you may make it simple for students to select healthy snacks.
- Serve lean meats and other high-quality sources of protein, such as fish, eggs, beans, and nuts.
- Other healthy snacks include low-fat yoghurt, peanut butter and celery, or whole-grain crackers and cheese.

### **3.1.3 Avoid Fights Over Food**

It is simple for disagreement to arise over food. Parents with the best of intentions may find themselves bartering with or paying children to eat the nutritious food that is put in front of them. Giving kids some control but simultaneously limiting the kind of foods available at home is a healthier approach. Children must determine their own level of hunger, what they will consume from the available options, and when they are satisfied. In between meals as much as during meals, parents have influence over what foods are provided to their children. Following are some suggestions:

### **3.1.4 Include children**

The majority of children will love selecting the dinner menu. Discuss making decisions and preparing a balanced dinner with them. Some might even want to participate in the dinner

preparation and ingredient shopping. Parents must remember to provide their children natural sources of energy like coconut milk, avocado, dry seeds, millets, and whole wheat instead of ice cream and junk food if their children are involved in sports and other outside activities. Teenagers who stop following a healthy diet plan may have a variety of health issues in their early 20s.

## 4. Experimental Methodology

### 4.1 SPSS BASED RESULT EVALUATION

Statistical Package for the Social Sciences is the name of the IBM SPSS Statistics programme, also known by the acronym SPSS. It is a piece of software for statistical data analysis. Despite the name of the programme referring to its early usage in the social sciences, SPSS has been applied to other data markets. SPSS can be used to enter, analyze, and visualize the data. All of the analyses presented in this chapter, as well as many more, may be performed using SPSS, which can manage vast amounts of data.

Data management procedures generally consist of three steps:

- Importing data into the SPSS Package
- Labelling data (variables and values);
- Sorting and merging data.

**Step 1:** Click Start All Programs IBM SPSS Statistics 21.0 to start the SPSS application.

**Step 2:** After automatically presuming that it should open an existing file, SPSS provides a dialogue window to ask which file you would like to open.

**Step 3:** Select "More files..." in the current dialogue box to navigate to the location where we previously saved our dataset for the EATING BEHAVIOR.

**Step 4:** Once found the file, click **Open** and display.

**Step 5:** Another window appeared, generally blank but with some strange-looking text in it.

**Step 6:** Normally collect data, to categorize our new variable into: Fresh fruit, Milk, Vegetables and fast food and then change the type is String into Numeric.

**Step 7:** Then, we convert all strings to numeric data.

**Step 8:** Now interpreting the results use any clustering techniques.

**Step 9:** Select Analyze → Classify → K means cluster.

## 4.2 K-MEANS CLUSTERING

The process is known as k-Means, where k is the necessary number of clusters, and the goal is to assign a case to the cluster analysis for which its distance from the cluster mean is the least. The main objective of the set of rules is to find the k means. Cases are initially grouped according to how close they are to the centers. The cluster manner should then be computed once again using the cluster's cases. Reclassify every instance using the updated set of criteria. Repeat this step if the cluster strategy doesn't dramatically alter between steps. The cases should be assigned to their permanent clusters and the cluster means should be updated at some time.

**Table 1: Initial Cluster Centers**

	Cluster		
	1	2	3
FRESHFRUIT	4	2	1
MILK	1	1	2
VEGETABLES	1	1	2
FASTFOOD	4	1	4

### 4.2.1 Start Cluster Centers

The initial stage in k-Means clustering is finding the k means facilities. This is accomplished through iterations. To lessen the trade between two iterations, start with a fundamental set of centers and then tweak them as necessary. In any other circumstance, you could let IBM SPSS data find k well-separated cases and use those numbers as initial clustering facilities. Table 1 displays the early resources for the female infant's good eating habits. Once the first cluster centers have been selected, each case is subsequently assigned to the closest cluster based on its proximity to those centers. After each case is assigned to a cluster, the cluster facilities are

updated based on all of the instances in the cluster. Once more, these cutting-edge cluster centers are used for case assignment. Assign instances to them, then move the cluster centers about until either no centers shift significantly, or the allotted number of iterations (10 by default) has been used.

#### 4.2.2 History of Iterations

The maximum number of iterations was completed, hence the iterations ceased. The convergence of iterations failed. Any centre can experience an absolute coordinate shift of no more than 4.122E-013. Ten is the current edition. The shortest separation between original centres is 3.317 miles.

**Table 2: Iteration History<sup>a</sup>**

Iteration	Change in Cluster Centers		
	1	2	3
1	1.743	.801	1.022
2	.067	.022	.026
3	.003	.001	.001
4	9.915E-005	1.581E-005	1.596E-005
5	3.814E-006	4.273E-007	3.991E-007
6	1.467E-007	1.155E-008	9.977E-009
7	5.641E-009	3.122E-010	2.495E-010
8	2.171E-010	8.536E-012	6.336E-012
9	8.445E-012	3.279E-013	2.555E-013
10	4.215E-013	1.067E-013	1.037E-013

three iterations were sufficient for the data in Table 2. Table 2 lists three iterations and changes to cluster centers.

#### 4.2.3 CLUSTER MEMBERSHIP

Table 3 displays the cluster membership of each cases and distance between each cluster.

**Table 3: Cluster Membership**

Case Number	AGE	Cluster	Distance
1	18 - 20 Years	1	1.430
2	18 - 20 Years	2	1.206
3	18 - 20 Years	3	1.048
4	15 - 18 Years	1	1.812
5	15 - 18 Years	3	.798

#### 4.2.4 LAST CLUSTER CENTERS

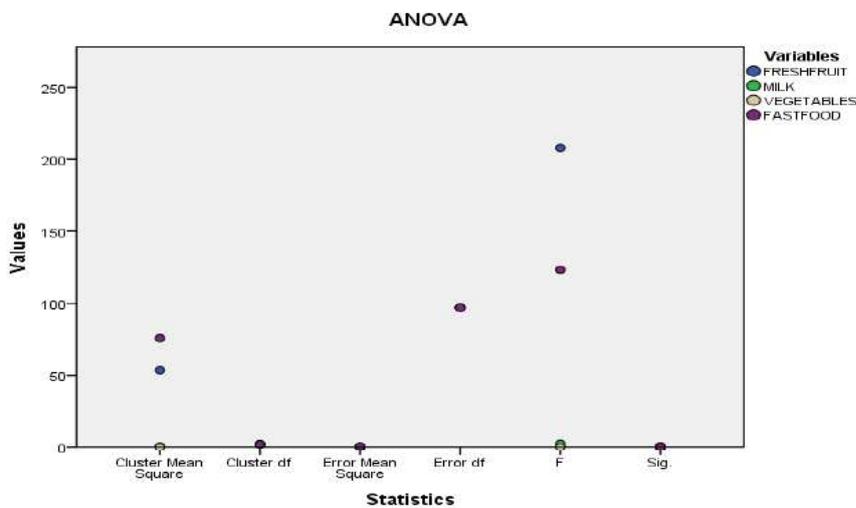
When an iteration is complete, all cases are grouped based on the closing set of cluster centres. Once all the instances have been grouped, the cluster facilities are calculated once every time. Describe the clusters using the newest cluster infrastructure. The median fruits proportion of Cluster 1 in Table 4 is much higher than that of the other clusters. While the costs for milk, vegetables, and fast food are all typical, the values for milk in Cluster 2 are above average. Fast food and fresh fruit are both above average in cluster 3, while all of the other components have below-average levels.

**Table 4 : Final Cluster Centers**

	Cluster		
	1	2	3
FRESHFRUIT	4	1	2
MILK	1	2	1
VEGETABLES	1	1	1
FASTFOOD	2	1	4

#### 4.2.5 STATISTICS USING ANOVA

If there are values that are outliers, case plot the distances to their cluster values for each case, as shown in figure 1.



**Figure 1: Statistics using ANOVA**

Fresh fruit had the highest preference among students according to an analysis of variance (ANOVA), followed by fast food, milk, and vegetables with the lowest preference.

#### 5. CONCLUSION

The majority of kids, according to this poll, have eating issues such as finicky eating, partial eating, overeating, etc. Using the SPSS Package, we conducted this survey to identify the healthy eating habits of girl students. We also wanted to raise awareness of these students' preferred foods and their good eating habits. The survey questionnaire uses K means cluster approaches. After computing the findings, they are displayed in such a way that fresh fruits or fresh fruit liquids may be consumed first. second, a preference for quick food. Only 51% of young girls regularly consume milk, making it their third choice. Finally, the least harmful eating practise is to include veggies in all of your meals.

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## IMPACT OF SOCIAL MEDIA MARKETING AMONG USERS IN CHENNAI CITY - AN EMPIRICAL STUDY

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This paper aims to understand the innovations in the field of e commerce. This paper highlights the need of marketing through social media which gives an insight to many for advancing to an entrepreneur. Hence forth suggestions and findings can help business people to improve their business.

### **Abstract**

Social media is playing the major role to reach the public faster. Marketers have chosen social media as a weapon for conquering many users. Social media usage becomes more in times of pandemic. Social media marketing has created a new approach of marketing to reach many with less effort and cost. This study aims to examine the perception of social media among users and analyze the factors which influence them. The study has been conducted with a well framed questionnaire distributed to many users. The sample size used for the study is 100 and analyzed with the help of statistical tools like percentage analysis, weighted average and factor analysis. It was found that social media has a positive impact on users in the field of marketing.

But the marketers have to use it opportunistically to grab more number of customers and retain with updated and innovative marketing techniques.

Keywords: Social media, Users, Social media marketing and challenges

## INTRODUCTION

Social media marketing is one of the marketing strategies using social media platforms for marketing. Social media helped many to have a source of income by exposing their talents or marketing their products and the like. During pandemic, usage of social media is much more and helped the business people to reach many number of customers with ease. Compared to traditional marketing, social media has a great impact on users which in turn lead optimization of opportunities. Social media attracts many and encourages in sharing the content across the globe. Social media gets connected with users with effective communication.

## REVIEW OF LITERATURE

**Jalal R H (2022)** aimed to understand the impact of social media marketing on purchase decision of consumers in fast food industry. With the help of AMOS 21,- through SEM model Informativeness, perceived reliability has a positive effect on purchase decision of consumers.

**N.Vaihsnavi & Dr.S.Subbulakshmi (2022)**, tried to discover the effectiveness and satisfaction towards online shopping in selecting websites. This paper concluded and revealed that the virtual platform showcase the website attributes, individual characteristics and willingness to buy.

**Dr.V Jayanthi, Dr.S Subbulakshmi (2021)** tried to bring out the effect of social media on the entrepreneurial traits of college students. This paper identifies the effect of social media usage among entrepreneurs through their entrepreneurial traits with the help of “Techno Entrepreneurial Model” (TEM). Entrepreneurial capacity in this model tied with desire and feasibility of usage of social media which assist in entrepreneurial initiative.

**Tashtoush L (2021)** tried to study the factors which influence the consumer in buying behavior in commercial bank. This study found that the interactivity with consumers is the positive factor which influences consumer buying behavior.

**Rabab Murtaz (2021)** attempted to study about the impact of social media on consumer buying behavior. This study found that the reviews given have an influence on consumers buying behavior.

#### OBJECTIVES OF THE STUDY

1. To understand the usage of social media amongst users
2. To examine the perception of social media users.
3. To analyze the factors that impact users from social media marketing
4. To offer valid suggestions for improvement of social media marketing.

#### RESEARCH METHODOLOGY

This is a descriptive study conducted with the help of a structured questionnaire with a sample size of 100 respondents in and around Chennai through convenient sampling. Secondary data was collected with the help of journals, magazines and analyzed using percentage analysis, weighted average method and factor analysis.

Percentage Analysis-Table no 1(Demographic profile and social media usage of respondents)

	Dominant group	Percentage
Age	18-24	82%
Gender	Female	78%
Occupation	Students	85%
Qualification	UG	83%
Most often used social media	YouTube	76%
Purpose of use	Entertainment and education	66%
Hours of use(Daily)	More than 4 hours	72%

**Source: Primary data (Questionnaire)**

Weighted average method-Table no 2(Perception of users about social media)

	Strongly agree(5)	Agree(4)	Neutral(3)	Disagree (2)	Strongly disagree(1)	W=15	Wx/w	Rank
Helpful in knowing the brands	45	23	22	9	1	402	26.8	I
posts are interesting	28	30	25	8	9	360	24.0	III
Valuable and worth videos	14	36	27	4	19	322	21.4	V
Gives relaxation for mind	37	25	30	6	2	385	25.7	II
Social media usage force lack of focus	23	32	20	11	14	339	22.6	IV

Weighted average method was used to examine the perception of users of social media. Social media is helpful in knowing the brand and ranked as 1. Spending time on social media relaxes the mind and hence ranked as 2. The last rank 5 is given to worth of videos.

### Factor analysis

It is used to analyze the factors that influences and impact the social media users in the field of marketing. Cronbach Alpha value was 0.901 KMO measure of sampling adequacy could be applied to 14 variables measuring the impact and influence of social media amongst users. It was observed that all measures of sampling adequacy being more than 0.05, all variables could be subjected to factor analysis. The total variance explained was 67.683.

Table no 3(Factors which influences and impact the users of social media in marketing)

Factor	Variable	Loadings
Marketing related factors	Awareness of brand	0.812

	Search engine optimization	0.745
	New Product promotion	0.721
	Great reach of products	0.719
	High exposure	0.626
Marketers factors	Interaction with consumers enhances marketing	0.803
	Enhanced followers	0.770
	Continuous connect with users	0.667
	Cost effective	0.630
	Users reviews and suggestion	0.619
User generated factors	Word of mouth marketing	0.779
	Giving Product feedback to others	0.757
	Easy accessibility	0.686
	Shares and likes	0.607

From the above table it was found that 3 components are extracted from 14 variables. Exposure, brand awareness, product promotion, reach and SEO are clubbed together with a cumulative variance of 26.534 and named the factor as marketing related factors. Enhanced followers, reviews, Connect, consumer interaction and cost effectiveness is clubbed together and named the factor as Marketers factors. The balance 4 variables is clubbed together and named as user generated factors.

## MAJOR FINDINGS

- Weighted average method shows that social media helps in knowing the brand and helps the marketers to popularize with their brand.
- Word of mouth marketing and search engine optimization are factors which impact the users of social media in the field of marketing

- Shares and likes eg. Feedback given by the users helps to boost up the sales of product.

## SUGGESTIONS

- Users can turn to up loaders which in turn lead an employment opportunity for them.
- Marketers can be optimistic by selecting social media as a platform for marketing and focus more on how to retain the users by updated their marketing strategy.
- Marketers has to concentrate on content quality and delivery.

## CONCLUSION

This study concluded and identified with the factors which influences the users' and understand its impact among the users. Marketing through social media attract and bring their attention while taking purchase decision.

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1. **Jalal R H(2022)** "Impact of social media marketing on consumers purchase decision in the fast food industry: Brand trust as a mediator International journal of information Management Data Insights Vol 2, Issue 2
2. **N.Vaihsnavi & Dr.S.Subbulakshmi, (March 2022)**- Effectiveness of E-Commerce Websites among Users in Chennai City, Published in: Journal of Education: Rabindra Bharati University ISSN: 0972-7175 Vol.: XXIV, No. : 1(VIII), 2022 UGC CARE Approved, Peer Reviewed and Referred Journal
3. **Tashtoush L(2021)** "The effect of social media on consumer buying behavior in commercial banks Saudi Journal of Business and management studies 6(2) ISSN-2415-6663 pp28-38

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1.[www.ijert.org](http://www.ijert.org)

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**PERCEPTION AND ATTITUDE OF YOUTH TOWARDS  
ELECTRONIC GADGETS IN CHENNAI CITY – A STUDY WITH  
REFERENCE TO COLLEGE STUDENTS IN CHENNAI CITY**

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The aim of this paper is to create and disseminate knowledge on innovations and its application to solve challenges in Commerce and in management. This paper focuses on bridging the gap between academia and industry for cross fertilization of ideas leading to effective dissemination of innovative solutions in emerging areas. Hence the research papers findings and discussions are based on evidence and that are implementable.

**ABSTRACT**

The uses of electronic gadgets “Youth” Particularly student occupy a major proportion. This occurs because of the e-literacy among them and they easily adopt the changing trends of the world. This paper exclusively focuses on the perception and attitude of students towards electronic gadgets. The perception and attitude of youth (college students) towards electronic gadgets. This study also identified the varied use of e gadgets among users in Chennai City. Data was collected through a well-structured questionnaire using a **convenient sampling method** with a sample size of 120 students in and around Chennai city. Statistical tools used are percentage analysis and factor analysis. In this digital era, this sort of research is very ample aid in guiding not only students the users’ towards proficient use of future gadgets and technology in the present education system.

Keywords: Attitude, Digital Era, Proficient, Electronic Gadgets and Uses of E- Gadgets

## **INTRODUCTION**

In the era of digital world internet has transformed the way, people living their lives. The majority of the people use the gadget technology as a tool for communicating, learning and the medium to find the information. Essentially the usage of technology gadgets actually provides several benefits to students especially in relation to learning. Many past studies that demonstrate the optimistic things of technology gadgets in addition to help the student's self-development process. Now everything can be complete with a snap, which makes our life faster, smarter and smoother.

## **SCOPE OF THE STUDY**

- To know the students attitude towards the use of electronic gadgets.
- To know and understand optimistic and negative attitude of respondents towards use of e-gadgets.
- To know the student expectations from the device (electronic gadgets).

## **OBJECTIVES OF THE STUDY**

- To study the perception and attitude of youth (college students) towards electronic gadgets.
- To analyze the factors which influencing electronic gadgets towards youth (college students).
- To offer suggestions based on the study.

## **REVIEWS OF LITERATURE**

- **J.Priya, S.Subbulakshmi (2022) “Customers’ Preference towards e-Pharmacies in Chennai City”**. This paper aims to identify the factors that influence customers’ buying intention towards e pharmacies for online medical purchases in Chennai city. In this study, Authors have identified and concluded that e- literacy is essential for the emerging e pharmacy Industries to succeed with their services to the public with the consideration of their health aspects.

- **Vaishnavi N, S.Subbulakshmi (2022), “ A Study on factors Influencing the perception of Website Privacy, Trustworthiness and User’s Purchasing Intentions in Chennai City.-** This paper purposes to study the factors that influence consumer purchasing intentions and their perceptions of the trustworthiness of the privacy-related practices of E-commerce websites in Chennai city. This research paper highlighted and concluded that people in today’s world shifted from offline (traditional) to online for clear cut benefits of convenience and comfort. Hence, creating awareness about E-Literacy (Technology Based Learning – (Access & Application)) among users’ helps them to use sites not only at present but for their better future.
  
- **NihanPotas&ŞuayNilhan (2021) titled “Technology addiction of adolescents in the COVID-19 era: Mediating effect of attitude on awareness and behavior”** Adolescents have been called the “digital natives of the technology age”, but determining adolescents’ awareness, attitudes and behavior with respect to technology addiction (TA) is important for evolving stable and effective approaches to support their physical and psychological well-being after the COVID-19 pandemic. As a result, the psycho educational involvement programs to be executed for TA should not only effort on awareness, but should also encompass behavioral, cognitive and lifestyle changes
  - This study concluded and highlighted that people in today’s world shifted from
  - offline to online for clear cut benefit of convenience and comfort. Based upon the
  - survey, this study identified that Amazon service is more satisfied in terms of
  - products, User’s care, privacy, trustworthiness and delivery service and so on.
  - Even though it is an E-commerce company it understood Indians very well and
  - made its roots stronger in India. Flipkart is facing a tough competition to Amazon;
  - it may take some time to overcome and tries to render its best service in Future
  - Indian E-commerce m
  
- **GobindaPuri (2021) titled” Electronic Gadgets for Young Children: Allow or Restrict”** the impact of electronic gadgets on young children in this fast-

growing digitalized world and argues for the judicious use of devices for digital learning and adjustment. This indicates that young children shouldn't be restricted to use gadgets rather should be observed by the young children

- **McCoy, B. R. (2020)** titled "Gen Z and digital interruptions in the classroom". Students' classroom uses of digital devices for non-class related purposes. The aim of this study was to learn more about students' behavior and perceptions regarding their classroom uses of digital devices for non-class related purposes. A significant feature of this study was its measurement of frequency and duration of students' classroom digital distractions as well as respondents' motivations for engaging in the distracting behavior.
- **Vahdat, A., Alizadeh, A., Quach, S., & Hamelin, N. (2020)** titled "Would you like to shop via mobile application technology? The technology acceptance model, social factors and purchase intention" This study aims to identify that what would you like to shop via mobile app technology? The Technology Acceptance Model,(TAM) social factors and purchase intention. The findings of this study indicate that perceived usefulness does not have a significant effect on attitude towards mobile app use. Perceived ease of use, social and peer influence, and intention to purchase exhibit positive effects on attitude towards mobile app. This study concluded that the demonstration of model towards mobile app has an effective use in a full mediator on three paths. ( ie., TAM social factors and purchase intention). Finally, moderation analysis showed that only age has a mediating effect on the path from perceived usefulness towards mobile app use.
- **SheetalArora(2020)** titled "Perceptions of Mothers towards Children Usage of Electronic Gadgets". The perceptions of mothers towards youngsterspractice of electronic gadgets. The findings exposed most of them recommended screen time for their children. The results also revealed that majority of children cause's health issues and gadget addiction

- **J&KDr.Syed Noor ul Amin, Hafsa (Jan2018)** titled "Smart Classroom a New Paradigm for Teaching and Learning: Its Implementation and Setback with Special". The main objective of the study of this leads to the adoption of a variety of smart solutions in educational environments to enhance the quality of life and to improve the performances of both teachers and students. The sample size was 220 and analysis using percentage analysis it was an important move that can turn a new face in the education system of Jammu and Kashmir.
  
- **Madhu Gupta1 &Kuldeep Singh (2017)** entitled "Effect of Smart Classroom Teaching On Achievement of Students" The study analyses the Main effect of method of teaching, gender and intelligence was found significant on achievement in Social Science among seventh graders and Interaction effect so method of teaching and gender was found insignificant on achievement in Social Science among seventh graders. The sample size is 430 and analysis using t-test, SPSS and ANOVA analysis. The results of the present study have indicated that students who possess a high level of intelligence are better at academic performance than the students who are less intelligent.

### **LIMITATIONS OF THE STUDY**

- ❖ **Out of 130 samples**, Only 120 samples have been taken for this study. If this study is conducted to maximum persons, it may give accurate overall attitude of the students.
- ❖ It is done among the college students in south Chennai.
- ❖ Time was major constraint for the study.

### **RESEARCH METHODOLOGY**

**This is a descriptive and analytical study** based on primary data and secondary source. Primary data was collected through a well- structured questionnaire through convenient sampling method distributed with a sample size 120 students in and around Chennai city Secondary Source like websites, books, journals etc., Statistical tools like percentage analysis and factor analysis were used in this paper.

**ANALYSIS AND INTERPRETATION**

TABLE: 1 Shows the DEMOGRAPHIC PROFILE of Users of E-Gadgets.

Particular	Dominant Group	Percentage
Gender	Female	58%
Age	20-30	37%
Stream	Commerce	23%
Occupation	Private Employee	33%
Family Income	Less than 25000	28%
Residing	Urban Areas	58%
Educational Qualification	Graduates	41%

**Source: Questionnaire**

TABLE: 2

The factors which influencing electronic gadgets towards youth (college students).

FACTORS	VARIABLES	FACTOR LOADINGS
<b>FACTOR 1 (Attitude)</b>	I feel confident and enjoy using gadgets to learn	0.672
	It is interesting using gadgets for my Personal studies	0.771
	Learning through the use of gadgets is a more flexible method of learning as it can be done anywhere , anytime	0.771

	I am able to access large volume of information on my gadgets	0.538
	The challenge of using gadgets for learning is exciting	0.637
	Gadgets help me to complete my assignments and submit then early	0.778
<b>FACTOR 2</b> <b>(Perception)</b>	Develop language skills	0.603
	Reduce their outdoor play time	0.414
	Family’s viewing of screen time as taken over the family time	0.484
	Electronic gadgets create positive influence on children’s academic performance	0.505
	Electronic gadgets play an important role in making children adopt to technology trends	0.693
	Electronic gadgets have lots of fun	0.709
	Spending more time with gadgets create health problems	0.503
<b>FACTOR 3</b> <b>(Influencing of gadgets)</b>	I can research topics easier	0.592
	I am more likely to procrastinate	0.716
	I am able to stimulate my senses and imaginations better	0.780
	My knowledge about new ideas increase because of gadgets	0.483
<b>FACTOR 4</b> <b>(Addiction)</b>	It create health problems like stress, anxiety etc.,	0.663
	It reduce sleeping time	0.813

FACTOR 5 (learning)	Useful to get information.	0.803
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**SOURCE: COMPUTED DATA**

### **SUGGESTIONS**

- Most of them using electronic gadgets with the preference usually for communication, learning and searching information.
- Often/ Frequent use of e-gadgets spoils our health Hence Health aspect to be considered while using e-gadgets

### **CONCLUSION**

This study concluded and identified that the innovative ways and rethinking on the tactics of execution to face the challenge in the arena of education. In the digital era, this sort of research is very ample aid in guiding student towards proficient use of future gadgets and technology in the present education system. Hence, this research paves the way to develop the skills through, latest ICT tools, development and strategies etc.

### **SCOPE FOR FUTURE STUDY**

Future studies may integrate with an enormous representative sample. Scarcity of time led to restrict the study to focus on the users only. Future studies may reflect a control group to have a comparative analysis of the influences of using and not using technology excessively to confirm the findings of the current study. There may be other factors that might have influenced the mental health and social life but not be controlled.

### **REFERENCE**

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## IMPACT OF COMPUTER TECHNOLOGY ON ACCOUNTING

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**ABSTRACT:**The ability of businesses to create and use computerised systems to track and record financial transactions has had the most impact on accounting. Computer systems that can swiftly present individual transactions into financial reports have replaced paper ledgers, manual spreadsheets, and handwritten financial statements. The development of information technology has led to significant accounting breakthroughs. The conventional paper ledgers and accounting books are automated by accounting software. These software packages might include various specialised features or be a generic programme that can be tailored to the way that businesses are currently run. The scale of an organization's operations and the number of people accessing the system are typically taken into consideration when choosing accounting software. The efficiency of accounting departments has also increased thanks to computerised accounting systems.

**KEY WORDS:**Accounting software, Information Technology, computer, Processing, Audit, Accountant.

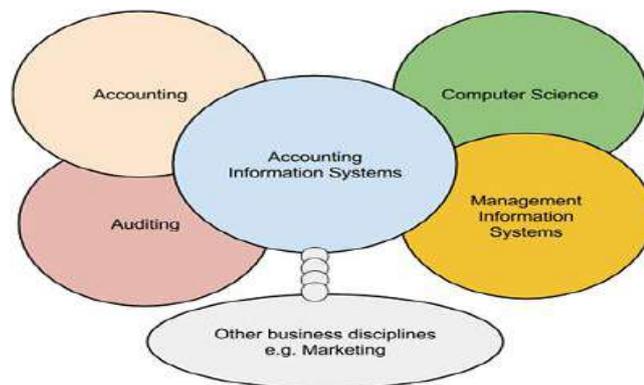
### INTRODUCTION

Accounting is referred to as an information system that measures, processes, and communicates a business entity's financial performance. Accounting refers to the systematic and thorough recording of all financial transactions involving a firm as well as the process of summarising, analysing, and reporting these transactions to the regulatory bodies and organisations in charge of tax collection. The growth of accounting and information systems has more chances because to the development of information technology, particularly in recent years. Businesses have been able to enhance productivity and speed up information sharing by using computers and other software programmes for recording and analysing information. The

advent of IT has been particularly beneficial for the accounting industry, enabling several businesses to create and employ computerised systems for storing their data. Technology has also helped to reduce the time needed for accountants to prepare and present financial accounts, which allows management to make decisions more quickly and effectively. The advent and rapid advancement of information technology had a significant impact on the accounting system of the organisation, and the development of the accounting system primarily coincided with the ongoing development in corporate management and its efficiency.

### ACCOUNTING INFORMATION SYSTEM

In order for accountants, consultants, business analysts, managers, financial supervisors, auditors, regulatory and tax agencies to use the financial transactions of a company, it must be possible for them to be collected, stored, managed, processed, and reported using an accounting information system. Accountants in particular employ accounting information systems to ensure the highest level of accuracy in the company's financial operations and to make financial data easily accessible to those who need it and have the permission to access it. Business entities often employ one of three information system types: a manual system, an electronic transaction system, or a database system.



**Sources: American Accounting Associations**

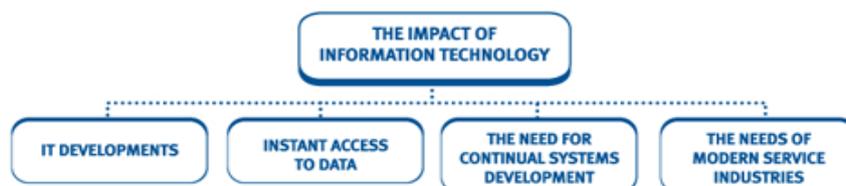
- **Manual Process.** The first kind of accounting system is this one. It uses ledgers and journals that are printed on paper. These days, some paper records have been replaced by computer-based transaction systems. A manual system requires a lot of labour because it uses human processing. A manual system may be prone to mistakes because it depends on human processing.

• **System for Computer-Based Transactions.** Accounting data are kept distinct from other operating data in this system. Information is handled in the same way as it would be in a manual system. The only distinction is that in this instance, the user is merely filling out a computer screen that mimics and frequently serves as the transaction's source document.

- **Systems for databases** By using this system, inefficiencies and redundant information are reduced. This system captures both financial and non-financial data, and then it stores that information in the data warehouse. The advantages of this system include recognition of business rather than just accounting events; the support in the reduction in operating inefficiencies and; the elimination of data redundancy.

### The Impact of Information Technology in Accounting Information Systems

The growth of IT has had the biggest impact on the corporate world of all modern technological advancements. Many businesses struggle with making use of contemporary technology, including computers, telephones, and the internet.. The opportunity for businesses to create and use computerised systems to record financial transactions is the major effect of accounting information systems from IT growth. The amount of time needed to prepare and present accounting information to management has decreased because to the use of IT in accounting.



#### Source: Kaplan Financial Knowledge Bank

Traditional book-keeping accounting has been supplanted by accounting software that is utilised as a collection of programmes and operations in a highly automated fashion. These software bundles typically come with a variety of specific features and are appropriate for current company processes. Numerous advantages have been produced by IT to enhance accounting information systems. The time saved in preparing and presenting financial information to management and stakeholders shows greater benefits. Additionally, more advanced IT systems have produced better external reporting, faster data processing, enhanced accuracy, and increased functionality.

## **INFORMATION TECHNOLOGY'S ROLE ON ACCOUNTING**

Business operations have been irreversibly altered by computers, servers, the Internet, wireless technologies, and personal digital devices. Accounting software automates the traditional paper ledgers and accounting books. These software programmes may come with a lot of unique features or may be a generic programme that may be customised to the way enterprises are now managed. When selecting accounting software, factors like the size of an organization's operations and the number of users are frequently taken into account. For instance, enterprise resource planning systems are a popular option for big firms. Information technology has had a significant positive impact on accounting departments (IT).

## **COMPUTERIZED ACCOUNTING SYSTEMS**

Accounting has been most significantly impacted by firms' ability to develop and use computerised systems to monitor and record financial activities. Paper ledgers, manual spreadsheets, and handwritten financial statements have been supplanted by computer systems that can quickly present individual transactions into financial reports. Companies can now provide customised reports for management decision-making fast and easily. The extra advantages of computerised accounting systems are as follows, in brief:

### **Improved Functionality**

By improving the timeliness of financial information, accountants may produce reports and operations assessments that give management an accurate view of current operations. The number of financial reports is now more diverse thanks to computerised systems; these include cash flow statements, departmental profit and loss reports, and market share reports.

### **Greater Accuracy**

Most computerised accounting systems have internal checks and balances to ensure that all transactions and accounts are accurately balanced before financial statements are produced. Accuracy is also improved by limiting the number of accountants who have access to financial information. Only competent supervisors can make modifications to financial information because accountants have less access to it.

**Faster processing**

Using computerised accounting systems, accounting professionals can quickly and effectively process enormous volumes of financial data. The time needed to end each accounting period has decreased due to faster transaction processing. During month- or year-end closure times, the workloads and labour expenses of accounting departments may increase. This time period's reduction aids in cost management, which improves overall business effectiveness.

**Better External Reporting**

The reports given to stakeholders and outside investors have improved thanks to computerised accounting systems. By examining updated reporting, investors can judge a company's investment potential for expansion opportunities and potential for high value.

**Software Applications in Accounting**

Modern accountants need to be knowledgeable about technological technologies in order to do accounting chores more successfully and efficiently. Accounting software includes fundamental accounting functions like input, processing, and output. There are two types of accounting software: high-end and low-end.

**Income tax**

Since tax regulations change so regularly, dealing with them has been rather difficult. Manual tax preparation consequently becomes more time-consuming and challenging. Therefore, instead of physically processing tax, firms can use computer software to complete the same activities. Computers can therefore swiftly complete even challenging calculations.

**Audit**

Information technology has also led to the digitization of the auditing sector. For instance, auditors can enter the working trial balance, manage different adjustment entries, and have the changed trial balance calculated automatically using trial balance software.

**Word processing**

The creation, editing, correction, modification, storing, and printing of text with the help of a computer is known as word processing. Accountants utilise word processing software to write reports, billings, memos, and financial statements.

### **Graphics software**

Graphics can be produced using graphics software. You have the choice of printing graphics on paper or presenting them on slides, transparencies, and pictures. Many auditors and managerial accountants use graphics software to graph the data in financial statements and reports.

### **Image processing**

The process of creating, maintaining, and updating physical copies of documents takes time. Additionally, processing and storing records is very expensive.. During picture processing, data is electronically collected so that it can be shared and saved.Utilizing document imaging, businesses are transitioning to paperless workplaces.

### **Electronic data interchange (EDI)**

Companies can exchange data online and communicate with one another. As a result, EDI makes it possible for businesses to exchange documents electronically. For instance, a computerised network enables the supplier and the buyer to electronically exchange purchase orders and invoices in the form of photographs.

### **Electronic funds transfer (EFT)**

Businesses can now communicate with banks using EFT. Using this technology, businesses can carry out electronic payment and collection. In addition, each time the business conducts a transaction, the transaction is instantly charged to the client's bank account and concurrently credited to the business's account. The computerised method additionally quickly updates all relevant accounts, such as cash and accounts receivable. The use of the computerised technologies mentioned above has led to the automation of the accounting information system. These modernised technologies are now present in accounting information systems, enhancing performance and cutting costs.

## CONCLUSION

Modern life has been impacted in various ways by the development of IT. The biggest effect technology has had on accounting systems is that it has given businesses the chance to design and deploy computerised systems to track financial transactions. The amount of time needed to produce and deliver accounting information to management has decreased because to IT in accounting. Additionally, more functional, more accurate, faster data processing, and better external reporting have all been made possible by sophisticated IT systems. Due to the tremendous time and money benefits associated with using computerised accounting information systems, businesses now have the opportunity to conduct accounting tasks more effectively and efficiently. Utilizing information technology for accounting tasks has given businesses the ability to move closer to paperless workplaces. If businesses use computerised systems, they may as well implement a production system more successfully. Tools like electronic data interchange and electronic payments transfer can give businesses the chance to use production systems more profitably.

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## WORKPLACE DIVERSITY HELPS MANAGEMENT IN DECISION MAKING

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### **Abstract :**

As businesses always look for ways to develop their company culture and overall productivity, one of the major area for improvement may be diversity in the workplace. Diverse workplace environments help employees feel welcomed and valued, which boosts their confidence at work. A Diversified workplace includes employees of different traits and categories such as religion, culture, sexual orientation, languages, skills and abilities. Managing such diversity is really a big challenge and an opportunity for a business for making a good decision, so as to encourage creativity, improve productivity, reduce labour turnover and avoid any sort of discrimination among employees.

**Key words:** Diversity, Workplace, Employees, productivity

### **1. INTRODUCTION**

With the growing globalization of today's economy, achieving diversity in the workplace is a smart move to make a good decision to attain the predetermined goals of an organization and to reach great heights. A diverse workplace helps the management to understand the employees needs and come up with ideas to fulfill them. Workplace diversity has significant implications for the management. The managers have to shift their approach from treating each group of workers alike to recognize differences among them and follow such policies so as to encourage creativity, improve productivity, reduce labour turnover and avoid any sort of discrimination. When workforce diversity is managed properly, there would be better communication, better human relations and congenial work culture in the organisation.

## 2. OBJECTIVES

- To discuss the various characteristics in workplace diversity.
- To discuss the benefits of workplace diversity in management.

## 3. CHARACTERISTICS OF WORKPLACE DIVERSITY

A Diversified workplace includes employees of different characteristics such as:

- Race
- Ethnicity
- Gender
- Age
- Religion

### **Race and Ethnicity:**

Race and ethnicity are crucial factors when we speak about diversity in the workplace. Race and ethnicity are interchangeable, but they are different. Race is a person's biological identity, including physical characteristics such as skin color, hair type, etc. Employees in an organisation differ from one another by their color and style.

### **Gender :**

Gender differences play an important factor in the workplace diversity. Organizations need to look at the barriers faced by both genders when contributing to the workforce and see how they can alleviate some of those restrictions for their employees. Human resources must use inclusive language in the workplace. It is good to refrain from using gender-binary language, as it might hurt people from other genders like gender-neutral, transgender, etc.

### **Age :**

Organization consists of different age groups of people. Every age group differs from one another. People above 20-30 will have different perceptions and opinions than with the people who are above the age of 30. These age differences help the management in making a good decision.

### **Religion:**

People belong to and follow many religions across the world. Many employees also choose specific religious practices. To promote diversity in the workplace, it is vital to be aware of your company's unconscious biases regarding religion.

If your company has designated prayer rooms, religious holidays, and celebrations, it can create a diverse work culture. If the company follows these policies it encourages the employee's to stay in the same organization.

#### 4.BENEFITS OF WORKPLACE DIVERSITY :



Fig.1.

Diversity increases innovation, creativity and strategic thinking because teams of people who come from different backgrounds can draw upon their unique experiences and a wider range of knowledge to spark new, innovative ideas.

One of the most significant advantages of diversity in the workplace is that employees often feel more comfortable and satisfied in inclusive environments. They also tend to be more loyal and are more inclined to stay longer at companies where their unique contributions are recognized and respected.

Overall, workplace equality can increase confidence and encourage employees to achieve their full potential. Diverse teams often have higher morale and are more productive, innovative and loyal to the organization.( Fig.1.)

## 5.CONCLUSION

workplace diversity is an essential concept that is currently used by various organizations and industries worldwide. The continually changing business environment requires companies to bring innovations to their operations and hire people with different backgrounds and skills. A diverse workplace is a reflection of a changing world and marketplace. Diverse work teams bring high value to organizations. Thus workplace diversity helps the management in decision making, attaining goals, and in reaching great heights.

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## BASIC ESSENCE OF CLOUD COMPUTING

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**Abstract:** cloud is a collective term for a large number of development and possibilities. It is not an invention, but more of a “practical innovation”, combining several earlier inventions into something new and compelling. Cloud Computing is a popular phrase that is shorthand for applications that were developed to be rich Internet applications that run on the Internet (or “Cloud”). Cloud computing enables tasks to be assigned to a combination of software and services over a network. This network of servers is the cloud. Cloud computing can help businesses transform their existing server infrastructures into dynamic environments, expanding and reducing server capacity depending on their requirements. A cloud computing platform dynamically provisions, configures, reconfigures, and deprovisions servers as needed. Servers in the cloud can be physical machines or virtual machines. Advanced clouds typically include other computing resources such as storage area networks (SANs), network equipment, firewall and other security devices. The current paper discusses about basic concepts of cloud computing.

**Key words:** cloud computing , practical innovation, remote server, public cloud, private cloud, hybrid cloud, personal digital assistant , heterogeneous devices, application program interface.

### Introduction

□ The popular trend in today's technology is 'Cloud computing'. The term cloud refers to a Network or Internet. i.e. cloud is something which is present at remote location. Cloud can provide services over private and public networks (i.e., WAN, LAN or VPN. Applications such as e-mail, web conferencing, Customer Relationship Management (CRM) execute on cloud.

- Cloud computing is the delivery of computing resources, including storage, processing power, database, networking, analytics, artificial intelligence and software application -over the internet on demand.
- Cloud computing can also be referred to as the storing and accessing of data over the internet and not using your computer's hard drive.
- The remote servers are used in cloud computing to store the data that can be accessed from anywhere using the internet.
- With the help of cloud computing, an organization save lots of cost of local data storage, maintenance of data, etc.
- The information over the cloud can be accessed by anyone, anywhere and anytime with the help of the internet.

#### Types of cloud computing

##### i) Public cloud

The cloud computing resources that owned and operated by a third-party cloud service provider are termed as public clouds.

##### ii) Private cloud

The cloud computing resources that are exclusively used inside a single business or organization are termed as a private cloud.

##### iii) Hybrid cloud

It is the combination of public and private clouds, which is bounded together by technology that allows data applications to be shared between them.

#### Cloud components

Cloud computing is classified as three components. The three components are :

- i) clients
- ii) Data Centre
- iii) Distributed servers

#### i) Clients

A cloud client is a hardware device or software used to access a cloud service. The cloud clients are

- Computer systems
- Tablets
- Navigation devices
- Home automation devices
- Other smart devices
- Operating system
- Browser, etc.

These cloud Clients are generally divided into three Categories. They are : a)Mobile b)Thin clients c)Thick clients

#### a) Mobile

Mobile devices includes

- PDA (personal Digital Assistants - Small networked computers that can fit in the palm of your hand)
- Smart phone
- iPhone

These devices are portable and work on wireless access of networks through internet

#### b) Thin clients

Thin clients don't have internal hard disks. The server will do all the clients' work and then display the information.

c) Thick clients

These are regular computers, that contain hard disks and use web browsers.

ii) Data Centers

A data Centre houses servers and data storage for an organization. This includes,

- The hardware itself
- The space in which it is housed
- The power systems
- Backup system
- environmental controls and
- Anything else needed to keep those servers running.

A data Centre can be a single server or complex with hundreds of servers on racks. Companies (like Amazon or Microsoft) that offer public cloud computing services have their own data centers. These data centers are made available to other organizations.

Data is connected across multiple data centers, public and private clouds. The data Centre must be able to communicate across these multiple sites both on premises and in the cloud. Even the public cloud is a collection of data centers. When the applications are hosted in the cloud, they are using data Centre resources from the cloud provider. Data centers are designed to support business applications that include,

- Email and file sharing.
- Customer Relationship Management (CRM).
- Enterprise Resource planning (ERP).
- Big data, artificial intelligence and machine learning.

□ Virtual desktops, communication and collaborative services.

iii) Distributed server

The servers need not be housed in the same location. The servers can be at geographically different locations. But the servers act as if they are working next to each other. These cloud servers are owned by infrastructure providers.

Essential characteristics

The five essential characteristics of cloud computing are

- I. On-demand self-service
- II. Broad network access
- III. Location independent resource pooling
- IV. Rapid elasticity
- V. Measured service

I. On-demand Self-service

Cloud computing services are available on-demand and do not require much human interaction. The user himself can provision, manage and monitor the resources as per his requirement. This ease of use and elimination of human interaction provides efficiencies and cost savings to both the user and the cloud service provider.

Eg: For booking a ticket on a travel portal, a passenger gets the flexibility to book his ticket by himself without any human interaction. Right from choosing the flight to preference class, the process is entirely automated and does not require any salesperson in between.

## II . Broad Network Access

Cloud computing is accessible from a network, generally over the internet. Similarly, private cloud services can be accessed from anywhere within the enterprise. The services are provided over heterogeneous devices such as mobile phones, laptops, tablets, office computers, etc. In cloud computing, high bandwidth communication links are available at lower cost to connect with cloud services. The cloud provides access to a large pool of resources. This sustains a high level of utilization.

Eg: The passenger can book his ticket via the internet from any device like a smartphone, laptop, tablet, etc which has access to a network.

## III . Location-Independent Resource Pooling

The cloud must have large and flexible resource pool like networks, servers, storage, applications and service to meet the consumers' needs. Applications require resources for their Execution. Application require resources for their execution. Resource pooling is done using a multi-tenant model. This allows multiple customers to share the same application or physical infrastructure. And retains data security and privacy.

Eg: consider travel portal example. The flights can carry several passengers in a single trip. These passengers travel to the same destination board, the same flight. They are allotted separate seats as per the demand and requirement.

## IV . Rapid Elasticity

Rapid elasticity refers that

- When required, the cloud can expand allocated resources quickly and efficiently.
- When not required, the cloud can reduce allocated resources quickly and efficiently.

The resource allocation may be done automatically from the large pool of resources to the user.

Eg: To meet the demand of the increasing number of passengers, an airline can increase the number of flights for a particular time and stop the flights when the demand goes down.

## V.Measured Service

The utilization of resources by the customer is tracked, monitored, controlled and reported for each occupant. The customer can then be billed based on the measured usage of only the cloud resources that were allotted for the particular session. The cloud system has a metering capability. This monitors billing and use of resources. The customer can pay only for what has been used.

Eg: when a passenger is travelling by train, he has to pay only for the distance travelled by him and not for the entire journey that the train takes.

## Advantages of Cloud Computing

- Back-up and restore data
- Improved collaboration
- Excellent accessibility
- Low maintenance cost
- Mobility
- Iservices in the pay-per-use model
- Unlimited storage capacity
- Data Security

## Disadvantages of Cloud Computing

- Data loss or theft
- Data leakage
- Account or service hijacking
- Insecure interfaces and APIs

- Denial of service attacks
- Technology vulnerabilities, especially on shared environments

### Conclusion

Cloud computing is recently new technological development that has the potential to have a great impact on the world. It has many benefits that it provides to its users and businesses. In simple words, the virtualization is a part of cloud computing where manual management is done for interacting with a hypervisor. On the other hand, in cloud computing, the activities are self-managing where an API (Application Program Interface) is used so that the users can self-consume the cloud service.

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## **A STUDY ON STUDENTS' PERCEPTION TOWARDS E-LEARNING APPS WITH SPECIAL REFERENCE TO MALAPPURAM DISTRICT**

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### **ABSTRACT**

The world is more dynamic than ever right now. For their own enjoyment and to pursue better career prospects, people need information. E-learning offers the chance to learn new skills whenever and wherever you want utilising cutting-edge teaching techniques. As this study try to understand the students' perception towards E-learning Apps.

**KEYWORDS:- STUDENTS, PERCEPTION, E-LEARNING APPLICATIONS**

### **INTRODUCTION**

You can benefit from learning applications at any point in the learning process. They have the power to support, guide, and facilitate learning while also giving access to resources. Applications for learning can help you learn new things, provide you instructions, or even walk you through the entire learning process from the very beginning to the point where you are an advanced expert. To make learning simple and enjoyable, learning applications integrate

cutting-edge mobile technologies, gamification, psychology, and best teaching techniques. To make studying more engaging, many schools already use mobile apps, particularly for tablets that may be used in class.

## **STATEMENT OF THE PROBLEM**

The mobility of educational apps is primarily responsible for their popularity. Even when people don't have the time to sit in on lectures or read books, they nonetheless need education. It's possible to learn whenever you want thanks to mobile devices and educational applications. Mobile devices and the software that runs on them advance throughout time. This study was conducted to learn how effectively students felt utilising an e-learning software.

## **OBJECTIVES**

- To understand the student's perception towards e-learning apps
- To know the satisfaction level of e-learning among students
- To identify the problems faced by students through usage of e-learning

## **HYPOTHESIS**

**H0:** There is no significant relationship between Gender and usage of e-learning apps

**H1:** There is significant relationship between Gender and usage of e-learning apps

## **SCOPE OF THE STUDY**

This study focuses on how students feel about the usefulness of e-learning apps. This study assists in identifying the elements that motivate students to utilise e-learning apps and the issues they encounter when using e-learning.

## **RESEARCH METHODOLOGY**

## **RESEARCH DESIGN**

Descriptive research was undertaken in order to study the students' perception towards E-learning Apps.

### DATA SOURCE

- **Primary data:**-The primary data is collected from the respondents by administering a structured questionnaire.
- **Secondary data:** - Apart from the primary data the secondary data is being collected through text books, academic reports, internet, etc.

### SAMPLING

- **Sample size:** 100
- **Sampling area :** Malappuram District
- **Sampling method:** Convenient Sampling.

### TOOLS USED

- **Data collection:** Primary data was collected through the questionnaire by distributing questionnaire.
- **Data presented:** The data's are well presented using tables, graphs and diagram.
- **Data analysis:** Data analysis was done using percentage analysis, simple average methods, weighted average methods and chi-square.

### LIMITATIONS OF STUDY

- Short span of time to conduct study.
- Incomplete information from the respondents.
- Respondents were reluctant to respond.

### REVIEW OF LITERATURE

(Wang Et.al 2009) Researchers that looked into the state of e-learning in China discovered that the level of development varied significantly throughout the nation's various regions. The study also revealed that some students yearn for online learning because they are unable to enrol in prestigious universities after finishing high school.

(Ehlers, U. D, 2009) summarized the relevant literature in the field of e-learning, outlined the distinctions between e-learning 1.0 and e-learning 2.0, and put it together with a number of previously published works.

(Noeline, 2010) One of the most significant explosions brought on by the internet revolution is e-learning. Even though it is unable to handle all aspects of the institution's operations, such as some courses that call for supervision and practical knowledge, it does foster greater interaction between students and lecturers, which will help students reach their learning objectives since they have access anywhere and at any time.

(Sawang, 2013) insisted that organisational support should be given to the E- learners in order to help them overcome technological obstacles. The support system for using e-learning consists of user training, technical help, and managerial support. When adopting e-learning, organisations must assess the support needs of potential students and, where appropriate, have the means for such support in place.

(Anuradha Pathak, 2019) Information and communication technologies have changed how things are done. Almost all of the divisions and domains have been impacted. It has also altered how teaching and learning are done. A novel approach to teaching and learning has emerged: e-learning. In order to improve the effectiveness of teaching and learning, this unorthodox style must be combined with the traditional mode. Finding out students' attitudes and perceptions about e-learning is therefore necessary. This study aims to investigate students' attitudes and perceptions of online learning. The study's findings indicate that most students have a favourable attitude and view of online learning.

## MEANING OF E-LEARNING

E-Learning, or electronic learning, is the delivery of learning and training through digital resources. Although eLearning is based on formalized learning, it is provided through electronic devices such as computers, tablets and even cellular phones that are connected to the internet. This makes it easy for users to learn anytime, anywhere, with few, if any, restrictions.

### Education Apps

An eLearning app or an online learning app connects students with a school or institutions with the help of a Learning Management System (LMS). The app holds, deploys scheduled courses, and tests as per the curriculum assigned. These curricula would be set up by teachers/administrators, and the related notifications/content would be sent via the internet. If these apps are AI enabled they can track the progress, analyse the weakness and strength of students and recommend courses and tests to enhance learning. There are many apps each with its unique USP and trying to make a difference in the niche they are focusing on be it geography, stream of studies or the users.

### **Byju's**

It is one of the well-funded and well-managed eLearning video platforms which has the motto to make learning fun for students. This study app is already considered one of the best education apps in India. It has very engaging video lessons which help in adaptive learning. This app also has complete mock tests and sample papers for classes 7-12 for all the board exams which help in preparing for competitive exams like IIT-JEE, CAT, and NEET. Its detailed performance analysis feature helps students to improve their performance.

### **Unacademy**

Unacademy has some great educators including first Women IPS officer of India, Kiran Bedi. This app provides more than 2400 video lectures and specialized courses on all kind competitive exams which have benefited more than 300,000 students even from the remotest corner of the country. It is one of the best education apps in India which has helped the students to improve their writing skills, ability to speak and enhance their knowledge.

### **Brain prep**

BrainsPrep Learning App is the best Kerala Syllabus learning app for Kerala Syllabus Class 9, 10, SSLC students for online tuition, live classes and to get PDF study notes, Textbook, homework help, Textbook Solutions, Revision classes and exam preparation study materials including Question Bank, Previous Year Question Papers to score 90+ marks in their SSLC, Class 9 Kerala Syllabus State board exams.

### Entri

Entri is India's leading local language learning app for job skills and provides content in different formats (videos, mock exams, studycards and podcasts) in local languages that helps its users either crack exams for govt. jobs or up-skill them for private jobs. It started with Malayalam content and now has more than 500 courses in 8 different Indian languages.

### Coursera

The Coursera app provides you with almost 1000 courses developed by more than 140+ best colleges and universities around the world. Now you can learn and continue your education while pursuing your career. It has advanced courses on computer science, data science, science, business, arts including photography, music and creative writing etc. It not only helps you in learning but also if you want to do any specialization you can earn certification as well. That is why this is one of the best learning apps in India.

### Concept owl

ConceptOwl is a leading video-based classroom learning platform created by Mr. Rajan Sing, an IPS officer turned educator. The app provides foundation course for students who want to crack IIT/JEE after their 12th standard. The content is delivered as Science and Maths subjects from 8th to 12th standard through videos, tests, teacher assistance and evaluation programme. The app is perfect for schools and coaching centers as well as individuals who want to get into the prestigious institutions of the country after their school.

**DATA ANALYSIS AND INTERPRETATION**

TABLE NO. 1

**GENDER OF THE RESPONDENTS**

<b>Gender</b>	<b>No. of respondents</b>	<b>Percentage</b>
Male	38	38%
Female	62	62%
Others	0	0%
<b>Total</b>	<b>100</b>	<b>100%</b>

Source : Primary Data

**Interpretation**

The above table indicates that 62% of respondents are females and 38% of respondents are males.

TABLE NO. 2

**EDUCATIONAL BACKGROUND OF THE RESPONDENTS**

<b>Educational Background</b>	<b>No of respondents</b>	<b>Percentage</b>
Below SSLC	6	6%
SSLC	4	4%
Plus two	22	22%
Graduate	32	32%
Post graduate	20	20%
Others	16	16%
<b>Total</b>	<b>100</b>	<b>100%</b>

Source : Primary Data

### Interpretation

The above table reflects that 32% of the respondents are graduates, 22% falls into the category of plus two, 20% of the respondents are post graduate, 6% of respondents are below SSLC, 4% of respondents are SSLC and remaining respondents are falls into the category of others.

TABLE NO. 3

#### AWARENESS OF THE RESPONDENTS WITH RESPECT TO VARIOUS E-LEARNING APPS

Awareness level	No. of respondents	Percentage
Highly aware	18	18%
Moderately aware	68	68%
Slightly aware	14	14%
Not at all	0	0%
<b>Total</b>	<b>100</b>	<b>100%</b>

Source : Primary Data

### Interpretation

The table reflects that 68% of the respondents are moderately aware about various e-learning app's, 18% are highly aware and 14% of the respondents are slightly aware.

TABLE NO. 4

#### USAGE OF ELECTRONIC DEVICES

Devices	No of respondents	Percentage
Laptop	20	20%
Smartphone	58	58%

Desktop	4	4%
Tablet	18	18%
<b>Total</b>	<b>100</b>	<b>100%</b>

Source : Primary Data

### Interpretation

From the table given above, 58% of respondents uses smartphone, 20% of the respondents uses laptop, 18% of the respondents uses tablet and remaining 4% of the respondents uses desktop.

TABLE NO. 5

#### USAGE OF E-LEARNING APPS

Usage	No of respondents	Percentage
Daily	26	26%
Once in every three days	44	44%
Weekly	20	20%
Rarely	10	10%
<b>Total</b>	<b>100</b>	<b>100%</b>

Source : Primary Data

### Interpretation

The above table reflects that 44% of the respondents uses e-learning apps once in every three days, 26% of the respondents are uses daily basis, 20% of the respondents weekly and remaining 10% of respondents uses them rarely.

TABLE NO. 6

#### NUMBER OF HOURS STUDENTS DEVOTE FOR E-LEARNING

No. of hours	No. of respondents	Percentage
<2 Hrs.	50	50%

2 – 4 Hrs.	42	42%
4 – 6 Hrs.	8	8%
>6 Hrs.	0	0%
<b>Total</b>	<b>100</b>	<b>100%</b>

Source : Primary Data

**Interpretation**

The above table indicates that 50% of the respondents devotes less than 2 hours for e-learning, 42% of respondents spends 2 – 4 hours, remaining 8% are spends 4 – 6 hours for e-learning.

TABLE NO. 7

EASINESS OF FINDING INFORMATION THROUGH ONLINE

<b>Opinion</b>	<b>No of respondents</b>	<b>Percentage</b>
Strongly agree	28	28%
Agree	50	50%
Neutral	22	22%
Disagree	0	0%
Strongly disagree	0	0%
<b>Total</b>	<b>100</b>	<b>100%</b>

Source : Primary Data

**Interpretation**

From the above table, it can be described that 50% of the respondents agree that it is easy to find information through online, 28% are strongly agree and remaining 22% neutral to the given statement.

TABLE NO. 8

PREFERENCE OF MODE OF E-LEARNING CLASS

<b>Options</b>	<b>Weighted average</b>	<b>Rank</b>
----------------	-------------------------	-------------

Live online class	4.24	1
Recorded class uploaded in YouTube/ other apps	3.44	3
Live classes that can be recorded	3.64	2
Sending reading material	2.50	4
Others	2.08	5

Source : Primary Data

### Interpretation

Among the total respondents major prefers live online class mode. The second is live classes that can be recorded. The third rank is for the recorded classes that can be recorded in YouTube/ other apps, 4<sup>th</sup> rank is for sending reading materials and last rank for others.

TABLE NO. 9

### EASINESS AND USER FRIENDLINESS OF E-LEARNING APPS

Opinion	No of respondents	Percentage
Strongly agree	20	20%
Agree	54	54%
Neutral	26	26%
Disagree	0	0%
Strongly disagree	0	0%
<b>Total</b>	<b>100</b>	<b>100%</b>

Source : Primary Data

### Interpretation

From the above table, it can be found that 54% of the respondents agree that e- learning apps are user friendly and easy to carryout, 26% are neutral to this statement and remaining 20% strongly agrees to the statement.

TABLE NO. 10  
STUDENT'S PREFERENCE OF E-LEARNING APPS OVERFACE TO  
FACE LEARNING

<b>Opinion</b>	<b>No of respondents</b>	<b>Percentage</b>
Yes	60	60%
No	40	40%
<b>Total</b>	<b>100</b>	<b>100%</b>

Source : Primary Data

### Interpretation

Above the table shows that 60% of the students prefers e-learning apps overthe face to face learning and 40% opinion that no.

TABLE NO. 11  
PRODUCTIVITY OF E-LEARNING APPS OVER  
CLASSROOM LEARNING

<b>Opinion</b>	<b>No of respondents</b>	<b>Percentage</b>
Strongly agree	14	14%
Agree	42	42%
Neutral	36	36%
Disagree	6	6%
Strongly disagree	2	2%
<b>Total</b>	<b>100</b>	<b>100%</b>

Source : Primary Data

### Interpretation

Above table shows that 42% of respondent's agrees that productivity of e- learning apps over classroom learning, 36% of respondent's opinion that neutral, and 14% of respondents are strongly agree.

TABLE NO. 12

#### QUALITY OF EDUCATION PROVIDED BY E-LEARNINGAPPS

Opinion	No of respondents	Percentage
Excellent	14	14%
Good	60	60%
Neutral	26	26%
Bad	0	0%
Very bad	0	0%
<b>Total</b>	<b>100</b>	<b>100%</b>

Source : Primary Data

### Interpretation

Above table shows that 60% of respondent's opinion that quality of education provided by e-learning apps are good, 26% of respondent's opinion that neutral, and 14% of respondents are opinion is excellent.

TABLE NO. 13

#### PREFERENCE OF E-LEARNING APPLICATIONS

Applications	Weighted average	Rank
BYJUS	3.90	1
Entri	3.46	3
Unacademy	3.56	2

Brain prep	2.62	4
Others	1.98	5

Source : Primary Data

### Interpretation

Among the total respondents majority prefers BYJUS application. The second is rank for Unacademy app. The third rank is for Entri, 4<sup>th</sup> rank is for Brain prep and last rank for others.

TABLE NO. 14

### PROBLEMS FACING DURING E-LEARNING APPS

Particulars	No of respondents	Percentage
Internet connection	34	34%
Concentration	36	36%
Health issue	22	22%
Advertisement	6	6%
Costly	2	2%
<b>Total</b>	<b>100</b>	<b>100%</b>

Source : Primary Data

### Interpretation

Above table shows that 36% of respondent's facing concentration issue during e-learning, 34% of respondent's facing internet connection issue, 22% facing health issue, 6% faces advertisement issue and 2% faces the problem of costly.

### TESTING OF HYPOTHESIS

**H0:** There is no significant relationship between Gender and usage of e-learning apps

**H1:** There is significant relationship between Gender and usage of E-learningapps

TABLE NO. 15

## OBSERVED FREQUENCY

GENDER	USAGE OF E-LEARNING APPS				Total
	Daily	Once in three Days	Weekly	Rarely	
Male	8	14	10	6	38
Female	18	30	10	4	62
Others	0	0	0	0	0
<b>Total</b>	<b>26</b>	<b>44</b>	<b>20</b>	<b>10</b>	<b>100</b>

Source : Primary Data

Observed frequency (O)	Expected frequency (E)	(O-E) <sup>2</sup>	(O-E) <sup>2</sup> /E
8	10	4	0.4
14	17	9	0.53
10	8	4	0.5
6	4	4	1
18	16	4	0.25
30	27	9	0.33
10	12	4	0.33
4	6	4	0.67
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0

$\chi^2$			<b>4.01</b>
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Source : Primary Data

$$\text{Chi-square} = (\text{O}-\text{E})^2 / \text{E}$$

$$\text{Degree of freedom} = (\text{Row}-1) * (\text{Column}-1)$$

$$= (3-1) * (4-1)$$

$$= (2 * 3) = 6$$

### Interpretation

Table value @5% level of significance for 6 degree of freedom = 12.59. The calculated value is less than table value. So, we accept the null hypothesis (H<sub>0</sub>). That is, there is no significant relationship between gender and usage of e-learning apps.

## FINDINGS, SUGGESTIONS AND CONCLUSION

### FINDINGS

- There is no significant relationship between gender and usage of e-learning apps.
- 68% of the respondents are moderately aware about various e-learning apps
- Majority of respondents uses smartphone (58%) on regular basis
- 44% of the respondents access e-learning apps once in a three days.
- Most of the respondents spend below 2 hours for e-learning
- 50% of the respondents agree that it is easy to find information through online
- Live online classes are the most preferred mode of e-learning.
- 54% of the respondents agree that e-learning apps are user friendly and easy to carryout
- 52% of respondent's opinion that e-learning apps offering good resources to learn from home.

- 60% of the students prefers e-learning apps over the face to face learning.
- 42% of respondent's agrees that productivity of e-learning apps overclassroom learning
- 54% of respondent's opinion that e-learning is more effective comparedto classroom learning
- Easy accessibility is the main factor that attract students while choosing online learning platform
- 60% of respondent's opinion that quality of education provided by e-learning apps are good.
- Byjus app is the most preferred e-learning application.
- Most of the respondent's facing concentration issue during e-learning.

## SUGGESTIONS

- Teachers should present resources that more convenient to the students
- E-learning apps should develop in a manner that all period/ courses ofstudents can easily accessible
- Cost of the e-learning apps should be reduced / enable an option to freeentry
- Give a class about e-learning's advantages and disadvantages to thestudents

## CONCLUSION

The result of the study shows that the strategy of implementing e-learning will be the best way for students to be aware of new technology and willing to study in various concept. Use of new technology will upgrade their knowledge. Online learning helps students to create and communicate new ideas. Get the chance to uplift your skills and gain knowledge apart from school education. One of the prime importance of e-learning is that it helps students and teachers develop advanced skills. Even there is issues relating e-learning and e-learning apps, by removing them e-learning is a good opportunity to the academicians and students. So, I

hereby conclude my study on the topic “A STUDY ON STUDENTS’ PERCEPTION TOWARDS E-LEARNING APPS WITH SPECIAL REFERENCE TO MALAPPURAM DISTRICT” by realising that after removing the issues related with E-learning apps the next generation i.e. the tech-savvy group may prefer e-learning over classroom learning.

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## REVIEW ON INTRUSION DETECTION SYSTEM BASED ON ML ALGORITHMS

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**Abstract:** Intrusion detection is one of the grueling problems encountered by the ultramodern network security assiduity. The developing pace of digital assaults on frame networks as of late composites the protection and security of PC foundation and PCs. Intrusion Discovery and Prevention systems are transubstantiating into a critical part of PC associations and network safety. colorful approaches have been proposed to determine the most effective features and hence enhance the effectiveness of intrusion discovery systems, the styles include, machine learning ( ML), Bayesian based algorithm, Random Forest, SVM, Decision Tree. This paper presents an intensive survey on different examination papers that employed single, hybrid and ensemble classification algorithms. The issues measures, weaknesses and datasets involved by the concentrated on papers in the advancement of IDS were looked at. A future heading for implicit explores is likewise given. The paper addressed rear most exploration papers written from the use of machine learning classifiers in intrusion discovery systems.

**Keywords:**Intrusion Detection System, Machine learning, network, misuse detection, Random Forest

### I. INTRODUCTION

The problem of identifying unauthorized use, misuse, and maltreatment of PC systems by both system insiders and external attackers is known as intrusion detection. The majority of currently available commercial IDS products rely on signatures rather than being adaptive or self-learning. Malignant interruptions are a growing problem, thus we need a way to accurately identify the intrusion. Many methods were being used to find the abnormalities, but they weren't very effective. IDS is used to find illegal or strange conduct. An attack is initiated in a network when abnormal behaviour is present. Attackers take use of network

flaws including careless security procedures and practices, as well as programming errors like buffer overflows, to compromise the network. It is challenging to defend network resources from nefarious users due to the widespread use of the internet. [1][3][5]

The systems that are used to recognise interruptions can be broadly categorised into two different sorts. Network-based and host-based interruption identification systems, respectively, are referred to as NIDS and HIDS. NIDS are strategically positioned at organisational hubs to the point where they can perform an analysis of the passing traffic on an entire subnet and coordinate it with their own arsenal of prepared attacks. An warning is provided to the administrator when the network exhibits unexpected behaviour or when an attack is discovered. Contrary to convention, HIDS only operates on specific hosts or network devices. It simulates the checking of the device's inbound and outbound packets and delivers a warning to the head.[2]

## **I. INTRUSION DETECTION SYSTEM (IDS) IDS**

An observing system called the Intrusion Detection System (IDS) detects suspicious activities and issues warnings when they are found. Using a security data and event the event management system, any intrusion action or violation is frequently disclosed to an administrator or gathered in the middle of the process [1].

- 1) System for Network Intrusion Detection: In order to examine traffic from all network devices, network intrusion detection systems, or NIDS, are set up at a designated location within the network. It matches the traffic that is passed on the subnets to the collection of known attacks by observing the passing traffic across the entire subnet. [1]
- 2) Host Interruption Identification Framework: Host interruption location frameworks (HIDS) run on free has or gadgets on the organization. A HIDS screens the approaching and active parcels from the gadget just and will alert the chief if questionable or dangerous development is recognized. It takes a portrayal of existing structure records and differences it and the previous review. [2]
- 3) Protocol-Based Interruption Detection System: Convention based interruption

identification framework (PIDS) contains a framework or specialist that would reliably live at the front finish of a server, controlling and deciphering the convention between a client/gadget and the server. It is endeavoring to get the web server by regularly checking the HTTPS show stream and recognize the associated HTTP show. [6]

- 4) Application Protocol Based Intrusion Detection System: Application Convention based Interruption Location Framework (APIDS) is a framework or specialist that by and large dwells inside a gathering of servers It recognizes the interruptions by checking and translating the correspondence on application-express conventions. [3]
- 5) Hybrid Intrusion Detection System: Hybrid interference area structure is made by the blend of no less than two techniques of the interference revelation framework. In the half and half interruption location framework, have trained professional or structure data is gotten together with network information to encourage an all out point of view on the association system. [4]

## II. DETECTION METHOD FOR IDS

- 1) Signature based Method: Signature-based IDS perceives the attacks concerning the reason of the specific models, for instance, number of bytes or number of 1's or number of 0's in the organization traffic. It furthermore perceives in view of the very acknowledged malignant direction plan that is used by the malware. The perceived models in the IDS are known as marks. [3]
- 2) Anomaly-based Method: Anomaly based IDS was familiar with recognize dark malware attacks as new malware are developed rapidly. In irregularity based IDS there is use of artificial intelligence to make a trustful activity model and anything coming is differentiated and that model and it is broadcasted questionable in case it isn't viewed as in model.[3]

## III. ALGORITHMS

- 1) Support Vector Machine: Support Vector Machine or SVM is one of the most renowned Regulated Learning calculations, which is utilized for Grouping as well as Relapse issues. In any case, on a very basic level, it is used for Order issues in AI. The target of the SVM computation is to settle on the best line or choice limit that can disengage n-layered space into classes so we can without a doubt place the new information of interest in the right characterization later on. This best choice limit is known as a hyperplane. [2]

- 2) **Decision Tree Algorithm:** Decision Tree is a supervised learning strategy that can be utilized for both Classification and Regression problems, yet generally it is liked for tackling Grouping issues. It is a tree-coordinated classifier, where inner hubs address the highlights of a dataset, branches address the choice standards and each leaf hub tends to the outcome. In a Choice tree, there are two hubs, which are the Choice Hub and Leaf Hub. Choice hubs are used to make any decision and have various branches, while Leaf hubs are the aftereffect of those decisions and contain no further branches. The choices or the test are performed in view of components of the given dataset. It is a graphical depiction for getting all of the expected solutions for an issue/decision considering given conditions. It is known as a choice tree in light of the fact that, similar to a tree, it starts with the root hub, which grows further branches and fabricates a tree-like plan. To manufacture a tree, we use the Truck calculation, which addresses Order and Relapse Tree calculation. [5]
- 3) **Radom Forest Algorithm:** Random Forest is a well-known machine learning algorithm that has a place with the supervised learning method. It might be used for both Arrangement and Relapse issues in ML. It relies upon outfit understanding, which is a course of merging various classifiers to deal with a confounded issue and to develop the exhibition of the model. As the name suggests, "Irregular Backwoods is a classifier that contains different choice trees on various subsets of the given dataset and takes the ordinary to deal with the farsighted accuracy of that dataset". As opposed to relying upon one choice tree, the irregular woods takes the forecast from each tree and considering the larger part votes of assumptions, and it predicts the last outcome. The more noticeable number of trees in the woodland prompts higher accuracy and forestalls the issue of overfitting. It requires less arrangement venture when diverged from various calculations. It predicts yield with high accuracy, regardless, for the enormous dataset it runs successfully. It can in like manner stay aware of accuracy when a tremendous degree of data is missing. [8][9][7] dataset it runs proficiently.

#### IV. OVERVIEW OF IDS USING MACHINE LEARNING

To forecast different class labels, the machine learning model relies on training data sets. ML is usually split into three categories:

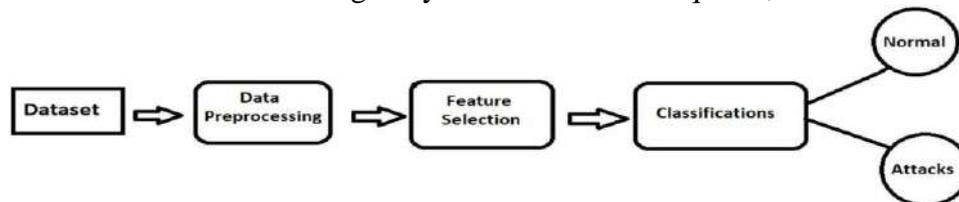
- 1) **Supervised Learning:** In supervised ML the dataset to be prepared is comprised of instances of the info vector, each with their comparable wanted yield vectors. Algorithms

in this kind of learning include: Gullible Bayes, KNN, ANN, Choice Tree SVM, Group strategies (Sacking, Casting a ballot Classifier), calculated relapse. [1][3][2]

- 2) Unsupervised Learning: In unsupervised ML, the learning calculation isn't given marks and as such it must without anyone else track down structure in its feedback. This is otherwise called learning without an educator. Self-Organizing Map (SOM) and outlier detection, Hierarchical clustering, and Cluster Analysis (K-Means clustering, Fuzzy clustering) are various unsupervised learning algorithms. [3][2]
- 3) Reinforcement Learning: In reinforcement learning, the model is prepared to go with a grouping of choices. The objective is accomplished in an unsure and possibly complex way. The model performs experimentation to raise an answer for the issue. Profound Q Organization, Q-Learning, State Activity Award State-Activity, Profound Deterministic Arrangement Gradient (DDPG) are different support learning algorithms. [3]

## V. DATA REDUCTION METHOD OF IDS

Larger part of AI and information mining approaches couldn't function admirably with interruption location due to enormous intricacy and size of datasets. These procedures find opportunity to characterize assaults which makes execution more troublesome progressively conditions. This is a result of enormous number of elements are contained in network information which is to be handled by Interruption Identification Framework. For better order, amount and nature of highlights matter and it assists us with figuring out their significance and their connection. In the event that highlights chose are extremely less, order quality will diminish and assuming they are more than required, it will make loss of



speculation. Exploratory outcomes show that exactness and computational expense is improved when we use highlight extraction strategies in Interruption Recognition Frameworks. In this way, dimensionality and element decrease techniques are being utilized as a pre-handling move toward further develop exactness and to lessen time for assault discovery

Fig.1 Block Diagram

### A. Feature Selection

Include determination strategies are utilized to find subset of best highlights which could work on generally result of the methodology and produce not many mistakes. Another objective is to diminish calculation time and capacity usage. In IDS, highlight choice procedures are used to further develop exactness of assault identification. A portion of the prevailing aspect determination techniques are Principal component analysis (PCA), Information gain(IG), and hereditary calculation. Channel and Covering are two sort of elements determination systems in which we consolidate different Component Choice strategies.

1) In covering method, a classifier is used as a black box for assessing ideal elements. Such strategies accomplish incredible hypothesis, yet in some cases persevere through high dimensionality because of the computational cost of setting up the classifier.

2) Filter strategies use no classifier for highlight assessment and are generally strong against overfitting, yet it uses independent assessment methods, for instance, distance measures, consistency measures, and relationship measure.

### B. Feature Extraction

In dataset lines address tests and segments addresses highlights, where elements are a consequence of quantitative and emotional discoveries. Highlight extraction is utilized to decrease the dimensionality of informational index by diminishing arrangement of elements such that exactness of assault location isn't changed and time utilized in disclosure is diminished. Various element extraction strategies are accessible in the field.

### C. Clustering

In clustering data tests are gathered into sets of information where information tests in each set is comparable in for sure. [10]

## VI. PERFORMANCE MATRIX

### A. Confusion Matrix

Data related to expected and actual classification performed by classifiers are represented by confusion matrices. The terms listed below are used to represent a confusion matrix.

- 1) True-Positive (TP): Accurately group an odd example as assault, here expected and genuine qualities are indistinguishable, However the model expected a Positive worth and the real qualities is Positive.
- 2) True-Negative (TN): Accurately characterize a non-assault test as customary case, here expected and genuine qualities are indistinguishable however, model expected a Negative Qualities and the real qualities is negative.
- 3) False-Positive (FP): Mistakenly order a normal example as abnormal case, here anticipated values ended up being negative, in this model the real qualities are negative and its normal as sure.
- 4) False-Negative (FN): Inaccurately order an assault test as conventional occasion

Reduction of False negatives and Misleading up-sides is a significant exploration issue as these meaningfully affect in general security of organizations. It is a lattice comprising of four prospects, as displayed in TABLE 1 , and through this network, knowing the quantity of accurately grouped records and the quantity of mistakenly characterized records is conceivable.[11]

#### COMPARISON RELATED WORK

Table 2. Comparison related work

#### VI. CONCLUSION

The presentation of ML creates new methodologies for IDS by which different analysts and scholastics have executed assorted types of characterizations in the advancement of models of IDSs. The paper addressed various examination papers composed from 2015 to 2020 on the utilization of AI classifiers in interruption discovery frameworks. Gathering and half and half classifiers have had the option to beat their single classifier comparable among the various models carried out in the different works being finished, and in this manner have the most noteworthy prescient precision and identification rate

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## **ROLE OF TALENT MANAGEMENT PROCESS AND STRATEGIES IN ORGANISATIONS**

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### **ABSTRACT**

The future of every organization depends upon the Talent Management. The different capabilities, skills and technical knowhow of human resources differ from employee to employee, accordingly it is the organizations ability to identify and train them to meet their goals. Particularly employees must be trained for situation handling. The organization motivate their employees monetarily and other benefits to achieve their common objectives.

The study focuses on talent management strategies and employee's acceptance towards training, motivation and achievements, individual and common goal recognition.

Key words: Talent Management , Strategies

### **INTRODUCTION**

Talent management is attracting employee's knowledge and skills to meet the needs of any organization. The process of identifying and sourcing the talents and filling the vacancies .The need for skills to attain the objectives of an organization is fulfilled through talent management. Right people for the right job are accomplished by Talent Management. Analyzing the talent for present and future, optimizing the existing skills are the important.

Talented People are those who regularly exhibit their abilities of activities, have high competence and deal with complex situations. Organizations need Talent Development to effectively compete in a rival environment to accomplish sustainability. If an organization need to work with high-performing employees it should build a healthy work environment and help talented people grow.

## STEPS TO MANAGE TALENT

1. **Planning:** Planning is the first step in Identifying, attracting and sourcing the human talents for the organization.
2. **Pooling:** Pooling the right candidates by different sources like job fairs , social networks and references within the organization or from external environment.
3. **Scrutinizing:** Evaluating and selecting the best out of good potentials to fit in the organization jobs through various selection process of screening tests , interview , written test and so on.
4. **Training:** Selected employees should be trained well by expertise to accomplish the objectives of the organization. Developing the skills and knowledge of the recruited personnel through sound resources will enhance the organization.
5. **Performance appraisals:** To know how the talents works there is a need for performance appraisal. It leads to check where the organization stands and how to develop. Human talents are evaluated through performance appraisals and healthy competition between the peers makes the organization better. Rewards to achievers will uphold the enthusiasm of the employees.
6. **Retention:** Retaining the human talents is the challenging task. As human knowledge and skills are different their needs are also versatile and organization must strive hard to meet the expectations of the talents by providing them proper salaries , perquisites , incentives, perquisites and more benefits to build a strong business culture between employees and the organization.

## STRATEGIES OF TALENT MANAGEMENT

Planning, organizing and facilitating various talent management activities such as orientation sessions for new employees, corporate learning and training sessions, learning forums etc. Organize and support learning needs analysis exercises by administering surveys, organizing focus groups, or brainstorming sessions can develop an healthy organization.

- **Job description**
- **Duties to be performed**
- **Required skills**
- **Equipment and tools**
- **Salary and wages**

**Detailed job descriptions**

A detailed job description helps the candidate understand the job – role better. Irrelevant information about the job can be avoided. Well informed job information induces the employee to perform better and to know the organization goal.

**Organization culture**

Employee must fit into the organizational culture. A happy employee is a productive employee. Organizational culture and values must be easy and working environment should be comfortable so that employees of high positive attitude can be found by the organization source.

An important strategy to make talent management more effective involves creating a culture of coaching, mentoring (even reverse mentoring) and collaboration. Constructive feedback goes a long way when it comes to helping employees evolve and develop their skills and expertise. Managing talent is thus also about preparing them for the future of the organization – to be ready for changes down the path and to be able to rely on each other.

**Reward and recognition**

The process of rewards and recognition is an important part of the strategy to motivate and manage employees better. Beyond financial rewards and bonus packages, a great opportunity for organizations to exhibit their employees how much they care for them as persons and as integral aspects of the organization.

**Opportunities for continuous improvement**

Managing talent needs to be put in the context of the future. Thus, employees need to be skilled with the right equipment and tools to be able to maximize their own potential. For the continuous improvement of the organization, scope and opportunities for the continuous

development of its employees. Moreover, this ensures that the cumulative skills within the organization are updated and upgraded.

The following are considered as the five pillars of talent management

- **Role-Based abilities:**

To articulate the skills and knowledge, competencies and experiences that an employee should possess in order to be successful in a specific role in the organization.

- **Career goals :**

Creating the opportunity and then making sure that people see it and know what it takes to reach the goals.

- **Development:**

The idea is that personal development should happen on the job through learning such as assignments and job rotations.

- **Recruiting :**

Recruiting is refreshing a job description. HR department to identify talent pools that reflect the desired competencies and focus their organizational goals. In the job interview, ensure to emphasize the variety of career goals and development opportunities. The onboarding program is important and should be consistent across the planning organization. New recruits should understand how their job relates to planning strategy and objectives. Eventually , they will have the opportunity to participate in an organizational program with other functional peers.

- **Performance Management:**

Performance management is the process by which organizations' HR departments measure and reward an individual's contribution to the business over time zones. The employees current performance and their future aspirations and understanding the values and relationship management are measured by HR departments.

### **Talent Management is Important**

Talent management is worth . Here are five reasons why it is important for every organization.

#### **Attract Best Talents**

Best talent refers to employees who have the high productivity and performance, as well as having the company's ideal traits. One aspect of talent management is the recruitment of the best employees. The selection process for candidates has a specific set of standards. The applicants will be evaluated seriously to achieve productivity.

### **Increases Productivity**

Talent management also gives a high productivity in the workplace. The initiatives in talent management ensure that to hire hardworking employees who are well equipped to do their job. At the same time, developing the existing employees so that they'll be more efficient, creative, as well as motivated in their work. This serves as an best way for productivity in the company.

### **Retain Talented Employees**

Talent management does involve retaining the best employees. Talent management enables companies to figure out ways to retain their best employees so that their contribution towards organizational goals will be rewarded with career growth and salary hikes.

### **Keeps Employees Motivated**

Motivation is essential in keeping employees engaged and productive in their work. Through proper training , career guidance and encouragement employees are given preference and will produce best results. Right motivation is essential for productive employees.

### **Increase Employee Performance**

Employee performance refers to how well the people do in their work and their overall attitude in the workplace. Talent management is a big help in performance management in that good employees would naturally have a excellent output in their work.

## **CONCLUSION**

In a nutshell, talent management is essential to build a stable workforce for any organization. The development of the organization depends upon the talented human resources and With new job opportunities coming up, developing staff potential within the company is essential

for business profitability and sustainability. Hence talent management plays a vital role in organizations .Right men for the right job in right time will lead to a successful organizational culture.

## A STUDY ON EQUAL EMPLOYMENT OPPORTUNITY IN SELECTED COMPANIES

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**Abstract:** The purpose of this study there is a definite need for companies to understand equal employment opportunities and determine the equal employment. And this research paper is to analyse the impact of equal employment opportunity on level of execution. In this paper discussed about the equal employment opportunities in the companies or industries or any corporates with the help of questionnaire and collected respondents from various different companies or industries employees. And analysed data from regression analysis of SPSS software using respondents. Almost all the analysed data and provided by the employees respondents and its result or outcomes holds good according to the dependent and independent variables.

**Key words:** HR, Employees, equal employment opportunities, Recruitment

**Introduction:** In this period of globalization, the human resources all over the nation is changing and move forward. The firms or companies utilize a complex enhanced human resource with different family styles and difference with reference to financial, gender, between nations and different global areas. It turns out to be extremely fundamental key for any firms or companies to manage with the different human resources arrangement successfully. Managing of human resource management isn't a choice however it is currently a thing to get done for all firms or companies who try to have a supportable development in the new financial seek. Managing of human resource gives a fair workplace to the different work power to perform to its most raised limits. One of the techniques for managing HR is Equal Employment Opportunity (EEO). All employees are treat equally and fairly under the fundamentals of equal employment opportunity, regardless of their age, gender, race, religion, language, or other characteristics. Firms and companies are playing very important role in development of nation and showing more value on the worldwide and also innovative new ideas and youngest entrepreneurs who provides good services and solutions. The

Indian companies and other firms or industries keeps on being one of the quickest growing companies in the Indian economy. Over the most recent twenty years, the Indian companies has contributed fundamentally to Indian financial development regarding GDP, foreign trade and other financial conditions. The companies becomes the largest private employer in India and creating challenging job opportunities for many employers. The purpose of this study there is a definite need for companies to understand equal employment opportunities and determine the equal employment. And this research paper is to analyse the impact of equal employment opportunity on level of execution or fulfilments. The focal point of this research study is to analyze the area to which the targets for developing for equivalent opportunities between the genders has enforced organizations to adjust and change their work and practices of management. It examines the crucial financial and social elements cause companies to embrace more employment approaches toward gender and other factors. Equal employment is definitely not a self-reliant issue. Companies policies for employment for employees comprise an essential role of the employment and framework of companies management. This study of research is an analysis of how organizations have change their work strategies and practices response to the develop company with providing new ideas and benefits to retention of employees of skilled, well knowledge and talent employees. Its also support to change changes in the companies framework for achieving goals.

**Literature Review:** “Aleksandra Stoilkovska, Jana Ilieva, and Stefan Gjakovski” (2015), the title of the paper “Equal employment opportunities in the recruitment and selection process of human resources”, in this research paper analysed the issues with the ideas of opportunities in equal employment during the recruitment and selection of HR process or hiring of an employee, both HR manger and applicant included in the process of selection, so, this paper is conducted separately between them. Equal employment opportunities is playing important role for choosing the right or genuine employee. And, in this paper analysed with the help of questionnaire, collected HR respondents from the different companies of Republic of Macedonia and selected randomly for response. The questionnaire was prepared based on different nationality, sex and age, differentiate against disabilities employees or candidates, connection of political, age and other discrimination. As main part of this concept, its impact is considered in the process of creating equal opportunities in the Macedonia.

Dr. Erica French (2009),the title of the research paper, “Equal Employment Opportunity and Diversity Management: Can either live up to the promise of achieving gender equity?”, this paper

analyses the how much improvement of women into leadership position. Similarly as other various countries, in this study considered Australia, which is slow in progress or development. And, in this study there is no any statistical tool used for analysis, examined with the theoretical concept. This paper focused on women by different regions in management between 1980 and 1990.

J. S. Wessels (2005) the title of this article, "Equal employment opportunities: A conceptual puzzle", the objective of the paper shows that fundamental keys of equal employment opportunities on the basis of four different indicators, justice, equity, merit and representatives, essentials have been distinguished to survey all human resource related assessment. And, this paper conclude that it very well may be possible to have equality and key equal employment opportunities based on above four different indicators, without having a staff part addressing hundred percent of country's population. Simultaneously, it may be feasible to have representativeness, without having an equal, just and merit-based staff part and without genuine equality.

### **Statement of the Problem:**

Equality is the one of the significant role in the development of companies and financial condition in the country. In our country, one out of ten employees experience either sort of differentiate in their companies. Differentiates not just ignores the rules and regulations on equivalent opportunities of employment. Equal Employment Opportunity is fundamental key for the employees inspiration or encouragement, responsibilities and fulfilment which assists the companies with expanding their efficiency and profit and also equal employment opportunity also reducing in poverty, illiteracy, disease and other among peoples. The companies or other organisations need to utilize various different styles, inspiration strategies, policies, rules and regulations to encourage equal balance in workplace between employees. In the companies employment opportunities are provided without differentiate in the long ago. At now a days, there is lot of differentiation on the basis with regions, areas, gender, and so on. The career improvement for the people are definitely impacted for the sake of ability, information remainder and quality. People are definitely impacted for the sake of ability, quality of skills and talent. Additionally, it is discouraging to discover that female workers are disturbed through giving over responsibility and especially required or enforced to work in night shifts (married employees are disturbed through different shifts). They are enduring at the physically, mentally and intellectually because of different life style. Also, it was noticed that transfer to different places affects the female workers as they can't move to different places and regions.

On the basis of above problems, from this problems were researched in this study,

- To how much equivalent employment opportunity is given in the organization?
- To what is the attitude of the workers working in the company?
- To what is the satisfaction of employees in their workplace?
- To what extent there is bias in the workplace in companies especially with regard to gender language, and age, etc..?

### **Objectives:**

- To analyse gender discrimination of Companies
- To study discrimination in employment, assignments, training and promotions through age based comparison.
- To analyse the level of fulfilment of employees and the work environment of employees in companies
- To identify the behaviour of the employees in the companies.
- To suggest better ways to reduce the discrimination and provide equal employment opportunity in the companies.

### **Hypothesis:**

- Null Hypothesis(H<sub>0</sub>) : There is no significant relationship between employees and equal employment opportunity
- Alternative Hypothesis(H<sub>1</sub>) : There is significant relationship between employees and equal employment opportunity

### **Research Methodology:**

Data collection is the process of information for this study of research, the primary data were used for data collection and for the purpose of fulfilling the objectives in this present research study and information is collect with the help of preparing questionnaire method of primary data is used. A collection of data or respondents from creating google form. The questionnaire includes questions on the basis of demographics, employment details, working conditions, discrimination in the companies, problems faced by the employees, job satisfaction and equal employment opportunity provided in the companies. The data on the questionnaire are collected from both company's men

and women belonging to various different areas or places. The tools are using in this research study for analysis is Regression analysis”, this test examines the respondents marital status, educational qualification, experience, age discrimination, gender discrimination, and religious discrimination and level of equal employment opportunity in Companies, and these factors were studied by percentages, average, and analyse through “MS Excel and Regression” analysis using assist with the SPSS statistical software.

**Data Analysis and Interpretation:**

Sl. No.	Gender	No. of Respondents	Percentage
1	Male	144	57%
2	Female	109	43%
	<b>Total</b>	<b>253</b>	<b>100%</b>

The above table represents about the number of people responded by gender, who all are working in different companies. We received more responses from male employees, who were responded 144 out of 253 and remaining 109 from female employees. And, in the above graph shows 57% of male employees responded and remaining 43% of females responded to this study. Hence, it is concluded from the analysis that the equal employment opportunity provided in different companies was at the maximum level among the respondents who were male.

Relationship  
employment  
Gender and  
responses  
employees:

ANOVA <sup>a</sup>						
Model		Sum of Sq.	df	Mean Sq.	F	Sig.
1	Regression	1.114	1	1.114	4.588	.033 <sup>b</sup>
	Residual	60.926	251	0.243		
	Total	62.04	252			
a. Dependent Variable: Gender						
b. Predictors: (Constant), Experience						

between Equal  
opportunity of  
experience  
provided by the

As per the above table about the calculation of Regression analysis, the significance value shows 0.033 and it is less than the significant value at 5% level. Hence, the null hypothesis (H0) is rejecting and the alternate hypothesis (H1) is accepting. The hypothesis “Experience of the respondents and gender provided by the employees holds better”. From the outcome, it is considered that there is connection between gender of the respondents and experience of employees.

1. Relationship between Age group and opinion of equal employment opportunity:

ANOVA <sup>a</sup>						
Model		Sum of Sq	df	Mean Sq.	F	Significance
1	Regression	0.782	1	0.782	0.75	.387 <sup>b</sup>
	Residual	261.748	251	1.043		
	Total	262.53	252			
a. Dependent Variable: Age						
b. Predictors: (Constant), Opinion						

As per the above table about the descriptive data of Regression analysis, the significance value shows 0.387 and it is more than the significant value at 5% level. Hence, the null hypothesis (H0) is accepting and the alternate hypothesis (H1) is rejecting. The hypothesis “opinion of equal employment is important or not according to the different age group of the respondents provided by the employees holds not good. From the review it is concluded that there is no connection between reply to the opinion and employees age group.

2. Relationship between experience and how treat equally in Companies:

ANOVA <sup>a</sup>						
Model		Sum of Sq.	df	Mean Sq.	F	Significance
1	Regression	2.134	1	2.134	2.218	.138 <sup>b</sup>
	Residual	241.557	251	0.962		
	Total	243.692	252			
a. Dependent Variable: Experience						
b. Predictors: (Constant), Equally						

As per the above table about the descriptive data of Regression analysis, the significance value shows 0.138 and it is more than the significant value at 5% level. Hence, the null hypothesis (H<sub>0</sub>) is accepting and the alternate hypothesis (H<sub>1</sub>) is rejecting. The hypothesis “how they treat employees according to the different experience group of the respondents provided by the employees holds not good. From the review it is concluded that there is no connection between reply to the opinion and employees age group.

3. Relationship between Experience and role of employee retention:

ANOVA <sup>a</sup>						
Model		Sum of Sq.	df	Mean Sq.	F	Significance.
1	Regression	0.031	1	0.031	0.032	.859 <sup>b</sup>
	Residual	243.661	251	0.971		
	Total	243.692	252			
a. Dependent Variable: Experience						
b. Predictors: (Constant), Employee retention						

As per the above table about the descriptive data of Regression analysis, the significance value shows 0.859 and it is more than the significant value at 5% level. Hence, the null hypothesis (H<sub>0</sub>) is accepting and the alternate hypothesis (H<sub>1</sub>) is rejecting. The hypothesis “the role of employment retention according to the different experience group of the respondents provided by the employees holds not good”. From the review it is concluded that there is no connection between reply to the employees retention and employees experience

4. Relationship between Gender and how treat equally in Companies:

ANOVA <sup>a</sup>						
Model		Sum of Sq.	df	Mean Sq.	F	Significance.
1	Regression	0.067	1	0.067	0.269	.604 <sup>b</sup>
	Residual	61.973	251	0.247		
	Total	62.04	252			
a. Dependent Variable: Gender						
b. Predictors: (Constant), Treat equally						

As per the above table about the descriptive data of Regression analysis, the significance value shows 0.604 and it is more than the significant value at 5% level. Hence, the null hypothesis (H0) is accepting and the alternate hypothesis (H1) is rejecting. The hypothesis how they treat employees according to the employees gender provided by the employees holds not good. From the review it is concluded that there is no connection between respondents of employees retention and employees experience

5. Relationship between Age group and role of age discrimination in the promotion

ANOVA <sup>a</sup>						
Model		Sum of Sq.	df	Mean Sq	F	Significance
1	Regression	4.592	1	4.592	4.469	.036 <sup>b</sup>
	Residual	257.937	251	1.028		
	Total	262.53	252			
a. Dependent Variable: Age						
b. Predictors: (Constant), Agediscrimination						

As per the above table about the descriptive data of Regression analysis, the significance value shows 0.036 and it is less than the significant value at 5% level. Hence, the null hypothesis (H0) is rejecting and the alternate hypothesis (H1) is accepting. The role of age discrimination in the promotion or recruitment according to the different age provided by the employees holds good. From the outcome it is considered that there is connection between respondents of employee’s retention and employees experience.

6. Relationship between Marital status and different forms of discriminations:

ANOVA <sup>a</sup>						
Model		Sum of Sq	df	Mean Sq	F	Significance
1	Regression	1.395	1	1.395	5.775	.017 <sup>b</sup>
	Residual	60.644	251	0.242		
	Total	62.04	252			
a. Dependent Variable: MaritalStatus						
b. Predictors: (Constant), formsofdiscrimination						

As per the above table about the descriptive data of Regression analysis, the significance value shows 0.017 and it is less than the significant value at 5% level. Hence, the null hypothesis (H0) is rejecting and the alternate hypothesis (H1) is accepting. The role of different forms of discrimination in the promotion or recruitment according to the marital status provided by the employees of different companies holds good. From the outcome it is considered that there is connection between respondents for different forms of discriminations according to their marital status.

- Relationship between Marital status and different benefits to workers based on their gender/experience:

ANOVA <sup>a</sup>						
Model		Sum of Sq	df	Mean Sq	F	Significance.
1	Regression	3.214	1	3.214	13.716	.000 <sup>b</sup>
	Residual	58.825	251	0.234		
	Total	62.04	252			
a. Dependent Variable: MaruitalStatus						
b. Predictors: (Constant), differentbenefits						

As per the above table about the descriptive data of Regression analysis, the significance value shows 0.000 and it is less than the significant value at 5% level. Hence, the null hypothesis (H0) is rejecting and the alternate hypothesis (H1) is accepting. The role of different benefits in the promotion or recruitment according to the marital status provided by the employees of different companies holds good. From the outcome it is considered that there is connection between respondents for different forms of benefits according to their marital status.

- Regression analysis with using age and different variables.

ANOVA <sup>a</sup>						
Model		Sum of Sq	df	Mean Sq	F	Significance.
1	Regression	8.906	8	1.113	1.071	.384 <sup>b</sup>
	Residual	253.623	244	1.039		
	Total	262.53	252			

a. Dependent Variable: Age
b. Predictors: (Constant), promotoncriteria, empretention, Salarydiff, workdifferentiarete, encourage, diffbnefit, promotion, Agediscrimination

As per the above table about the descriptive data of Regression analysis, the significance value shows 0.384 and it is more than the significant value at 5% level. Hence, the null hypothesis (H0) is accepting and the alternate hypothesis (H1) is rejecting. The above descriptive data analysis using with the different variable are as follows criteria's for promotions, retention of emploeyees, differentiation of salary, encouragement, various different, discrimination of ages etc. according to the age of the employees and as per the data provided by the employees of different companies shows better . From the outcome it is considered that there is connection between above different variables according to age of employees.

### **Summary of findings:**

The review was focused on the analysis of the equal employment opportunities in the different companies in India. For this object, the information or data collected through questionnaire with using google form. The information was collected from 250 plus respondents of IT employees or any other employees of companies. And, used Regression analysis statistical tool. On the basis of analysis and interpretation from collected data, the findings were summarised are as follows, For this, collected more than 250 responses from employees from different companies, and 144 male and 109 female employees are responded for this study, which means 57% of males and 43% of females respondents. Gender of the respondents was examined and it was observed that most of the respondents who were male accepted that there is equal employment opportunity in companies. It found out from data analysis that the most of the respondents related to the age group 25-28years, these employees are agreed to the equal employment opportunities in the companies compared to the other age group respondents. According to the marital status of the respondents was considered and it was observed that most of the respondents who were married employees and they were agreed that there is high powerful of EEO in companies, It was determined from the analysis of regression analysis that there is relationship between marital status of the respondents and different benefits in EEO in companies. According to the outcome of the experience of the respondents, it was found that

most of the respondents having work experience of 0 to 3 years and 4 to 6 years assent EEO in Companies. And, remaining experienced employees of 7-10 and 10+ years experience are least responders i.e., 26 each. It is concluded that there is connection between experience of the respondents and equal employment opportunity in the companies. It was conclude from the result of regression analysis that there is close connection between replies to the age discrimination and equal employment opportunity in the different companies. It is noticed that according to the replies to the age group, majority of the replies were disagree to the age discrimination. The opinion of the employees with respect to the work environment in their companies was studied and it is found out that majority (48%) of the respondents overall experience of the employees observe that the working relationship with colleagues and their employees treat equally and were good in their organisation. Remaining (52%) of the respondents feel may or may not be about the support from their management and supporting employees feel that the provided opportunities for their development of career in their organisation were not bad.

### **Conclusion:**

India is the developing country in the different areas like scientific, technically, medical, information technology and which are supports to development of economy. Now a days employees are play a very important role in the companies or corporate life. The discrimination of age exists in various different aspects which including at the time recruitment, training and development, discrimination at the time of promotion on the basis of age. The employees who are working in companies facing some discrimination for promotion, career development, and some various opportunities. A few suspicions are made on the working of employees in different companies or organizations in the languages. In some companies or industries are hire good well knowledge and skilled but yet at the same time they face some discriminations, in such cases, equal employment opportunities plays a very important role in the various different companies and industries. And, also its supports to satisfaction of employees and the overall performance of the companies. So, in this paper discussed about the equal employment opportunities in the companies or industries or any corporates with the help of questionnaire and collected respondents from various different companies or industries employees. And analysed data from regression analysis of SPSS software using respondents. Almost all the analysed data and provided by the employees respondents and its result or outcomes holds good according to the dependent and independent variables. Another outcome from the analysis, all

the data provided or given by the employees cannot said to be perfect or true and also everything cannot completely said to be perfect or can't analyse or determine perfect result. Employees reactions changing according to the situation or depends on the condition of the companies and along with their supporting employees.

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## A STUDY ON CONSUMER PREFERENCE TOWARDS AMAZON ONLINE SHOPPING APPLICATION IN CHENNAI CITY

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### Abstract

The act of purchasing products or services over the online shopping websites is called as online shopping. It offers a wide variety of products and services to the customers at their doorsteps. In this digitalized era, Online shopping has become very popular especially among working professionals who are looking for an easy way to shop their necessary products. The consumers can easily purchase any products from the comfort of their homes. Today online shopping has become more common and that is why it is essential to conduct a study on purchasing preference of the customers towards Online Shopping (Amazon). The main aim of this research is to analyse the consumer preference and the factors influencing the consumers to prefer Amazon for online shopping. The questionnaire will be circulated among the respondents in Chennai in order to derive the findings of the study. The study has revealed that majority of the respondents are preferring Amazon based on the Availability of wide variety of products, Orders that are delivered worldwide and Based on the safety provided for online transactions these are the major factors which influence the consumer to prefer Amazon.

**Key Words:** Consumers, Consumer Preference, Influencing factors, Online Shopping

## INTRODUCTION

Online retailing, also known as online shopping, is a type of electronic commerce in which consumers use a web browser to directly purchase goods or services from online. Alternative word for online shopping includes: e-shop, e-store, web-shop, web-store, online store, and virtual store are all forms of online retail. The internet's lower cost factors, as a direct channel of customers and a company with comparatively lower maintenance costs and investment, were regarded as critical factors in the success of online-based business. Because of the convenience, many people prefer to do their shopping online. It allows you to browse through an infinite number of options and offers merchandise that is not available in stores. Amazon is one such site that customers frequently use to purchase products. It conducts all its business with vendors and customers via the Internet. Customers prefer to purchase from Amazon because it is one of the most trusted retailers in terms of data security and customer service. They are also very good in terms of their hassle-free policy. Another advantage is that the product is accurately described, making it easier for the customers to purchase products.

## REVIEW OF LITERATURE

**Mohamed Imran Sheriff (2022) “A Study on Consumer Buying Behaviour with Preference in Amazon”** The study reveals that Clothing was the most popular product that customers planned to purchase from Amazon. Electronics took second place. Industrial equipment was the least preferred product by the consumers.

**Sugashini S, Dr. Ashac P (2022) “Buying Behavior of Customers towards Online Shopping in Nagercoil City”** reveals secure online payments, improved access to Electronic Stores, return policies, and exciting discounts could improve the perception of online shopping. The researcher concluded that Amazon is the most popular online shopping site, and it also shows that most respondents preferred to buy online due to convenience.

**Sruthi Ravichandran, Mr.D. Shanmugavadivel (2021) “A Study On Customer’s Preference And Satisfaction Towards Online Shopping In Amazon With Special Reference To Coimbatore**

**City”** helps to know more about the customer attitude, preference and factors which influence the consumer to buy goods in Amazon. The study reveals that consumer prefer more amazon for good quality of goods, detailed description of the products and fast delivery of the products.

**Dr.Thandauthapani A, Mr. Karthikeyan T, Dr.Venkatesh S (2021) “A Study on Customer Preference towards Online Shopping Platforms with Special Reference to Tamilnadu”** reveals that online shopping gives they lot of benefits compared to visiting a retail outlets. Factors like refund options, offers and discounts influences the consumer to prefer for online shopping. Also, the delivery time taken, safe and secure payment options assure them with safety that they can use online platform. Even though there is a threat of frauds, customers believe that online mode of shopping is highly safe and secured.

**Elika Kordrostami, Vahid Rahmani (2020) “Investigating conflicting online review information: evidence from Amazon”**, Investigated the influence of online reviews on people's purchase intentions and sales rank on Amazon revealed that both volume and valence range had an impact, with volume having a significant impact on purchase intentions only when valence was in the medium range and no impact at the low and high ratings.

## **RESEARCH GAP**

The study addresses how consumers are preferred to buy their products through online shopping website (amazon) rather than choosing any other online shopping websites like Flipkart, Myntra, Ajio, Nykka, Purple, Snapdeal, Meesho, Jio Mart and so on. There are many previous studies conducted based on the consumer perception, consumer buying behavior pattern, consumer satisfaction towards Amazon. There are limited research studies done on consumer preference. This study helps us to fill the gap on how the consumers are preferred to buy products through amazon than purchasing in another shopping websites. And, this study mainly helps us to find out the factors influence the consumers to prefer Amazon. This also helps us to find the significant relationship between demographic factors and the factors which influencing the customers to buy products in Amazon.

## **OBJECTIVE**

1. To identify the factors influencing the consumers to prefer Amazon online shopping application.

## RESEARCH METHODOLOGY

<b>Table 1- Research Methodology</b>	
<b>Sample Area</b>	Chennai City
<b>Sample Design</b>	Convenience Sampling
<b>Sample Size</b>	100
<b>Period of Study</b>	January 2023
<b>Statistical Tools</b>	Simple Percentage, Charts, Rank Correlation
<b>Research Instrument</b>	A self-prepared structured questionnaire circulated through Google forms.
<b>Collection of Data</b>	Primary data – Questionnaire Secondary Data – Research Journals, articles, websites.
Source: Compiled by the Authors	

## DATA ANALYSIS AND INTERPRETATION

### Demographic profile

The profile of the respondents was studied based on age, gender, educational qualification, occupation, and monthly income.

<b>Table 2 - Demographic Factors of The Respondents</b>			
<b>Demographic Factors</b>	<b>Classification</b>	<b>No. of respondents (N=100)</b>	<b>Percent</b>
<b>Gender</b>	Male	47	43.00
	Female	53	47.00
<b>Age</b>	Below 20 years	20	23.00
	21-30	55	59.00
	31-40	20	13.00
	Above 40	5	5.00

<b>Education Qualification</b>	School-level	5	8.00
	Diploma	6	8.00
	Undergraduate	45	46.00
	Postgraduate	42	36.00
	Others	2	2.00
<b>Occupation</b>	Self-employed	12	11.00
	Private	33	27.00
	Government	12	12.00
	Homemaker	0	0.00
	Student	40	47.00
	Others	3	3.00
<b>Monthly income</b>	Below 10000	35	43.00
	10001-20000	15	16.00
	21000-30000	30	23.00
	31000-40000	14	11.00
	Above 40000	6	7.00
Source: Primary Data Analysis			

**Interpretation:**

- a) From the above table, it was observed that most of the respondents were female (53%) and the rest (47%) are male.
- b) Out of 100 respondents taken for the study, most of the respondents were in the age group 21-30 (55%) while in the age group above 40 there were only 5%. It was found that 20% of respondents were below 20 years and between 31-40 years.
- c) It was observed that 45% of the respondents are undergraduates whereas 42% are postgraduates. About 5% of the respondents are only having school-level education, while 6% of them are diploma holders and 2% are from other backgrounds.
- d) It was observed that 40% are student, 33% are private employee, and 12% each for government employees and self-employed. Only 3% of the respondents are from other areas of occupation.

e) The study revealed that there are 35% of respondents are having monthly income below 10000. Approximately 30% of the respondents are having monthly income between 21000-30000 and 15% are between 10001-20000, only 14% of the respondents are having 31000-40000, and 6% of the respondent are above 40000.

## FREQUENCY STATISTICS AND RANKING

**Objective:** To identify the factors influencing the consumer to prefer Amazon online shopping application.

<b>Table 3 - Factors Influencing the customer the customer to prefer Amazon</b>								
<b>Factors Influencing consumer to prefer Amazon</b>	<b>Rank 1</b>	<b>Rank 2</b>	<b>Rank 3</b>	<b>Rank 4</b>	<b>Rank 5</b>	<b>Total</b>	<b>Final Rank</b>	
<b>Availability of wide variety of products</b>	<b>34</b>	<b>49</b>	<b>13</b>	<b>3</b>	<b>1</b>	<b>412</b>	<b>1</b>	
Buy now pay later facilities	17	30	23	20	10	324	13	
Delivering the products to the consumer on the prescribed time limits	22	41	28	9	0	376	8	
Great customer service	21	46	21	11	1	375	9	
Non-defective products	16	28	37	15	4	337	12	
Offers provided	25	44	24	6	1	386	5.5	
<b>Orders delivered worldwide</b>	<b>32</b>	<b>42</b>	<b>22</b>	<b>4</b>	<b>0</b>	<b>402</b>	<b>2</b>	
Price of the products	26	46	21	6	1	390	4	
Quality of products	16	45	26	12	1	363	10	
Refund facilities	20	47	26	5	2	378	7	
Return policies	24	50	16	8	2	386	5.5	
Review system	13	39	33	14	1	349	11	

<b>Safety provided for online transaction</b>	<b>27</b>	<b>49</b>	<b>19</b>	<b>5</b>	<b>0</b>	<b>398</b>	<b>3</b>
<b>Source:</b> Primary Data Analysis							

### **Interpretation:**

From the study, it can be seen that “Availability of wide variety of product” is considered as the major factor which influences the consumer to prefer Amazon online shopping application with rank 1 followed by the Orders delivered worldwide and Safety provided for online transaction in ranks 2 and 3 respectively. The reasons that are least considered factors to prefer Amazon online shopping application is non-defective product and buy now pay later facility in ranks 12 and 13 respectively.

### **FINDINGS FROM THE STUDY**

Demographic Profile reveals that majority of the respondents are female, their age group are between 21-30 year, the educational qualification of the major respondents are undergraduates, their major incomes are below 1000 and most of the respondents are students.

Influencing factors reveals that majority of the respondents prefer Amazon online shopping application based of the Availability of wide variety of the products, Orders that are delivered worldwide and Safety provided for online transaction and non-defective products and buy now pay later facilities are considered to the least influencing factors.

### **CONCLUDING OBSERVATION AND SUGGESTIONS**

The study has explored the factors which influence the consumers to prefer Amazon rather than choosing any other online shopping websites like Flipkart, Myntra, Ajio, Nykka, Purple, Snapdeal, Meesho, Jio Mart and so on. The study has revealed that consumers are preferring Amazon based on the Availability of wide variety of products, Orders that are delivered worldwide and Based on the safety provided for online transactions these are the major factor which influence the consumer to prefer Amazon online shopping application. Non-defective products and buy now pay later facilities are consider to be the least influencing factors to prefer Amazon online shopping application. Online Shopping Plays an important role and establishes itself as an essential component in consumers day-to-day lives. However, these companies must still work hard to convince

customers to stay and travel with them in order to sustain the market. With the presence of many competitors in the market, the success of the companies is dependent on the types of offers and customised products provided by them. The main factor is that customers expect these companies to respond quickly, and discount offers have a high level of customer preference. Amazon should have to analyse and develop new marketing strategy on regular basis.

### **SCOPE FOR FUTURE RESEARCH**

The study has explored the factors which influence the customers to prefer Amazon online shopping application rather than any other shopping websites, a future study can also be conducted on the influencing factors among other metropolitan cities because the preference of the consumer may change from period to period. There could be also a study based on the buying behavioural preference towards Amazon online shopping applications.

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## A STUDY ON “THE USER PERCEPTION OVER THE MARKETING STRATEGIES OF START-UPS IN INDIA”

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CLASS: 2nd Year M. Com

Session-: 2021-2023

### Abstract:

For the past decade India has been a great home for successful startups and it also has simplified people's life to greater extent. Start-ups are meant to be solution for general public problems and also act as an alternative for their day-to-day activities. India has a greater employable population which has been one of the important factors for starting a new venture. Also, it had led to the birth of thousands of new start-ups. It is estimated that by the next few years there will be numerous other start-ups. This research paper is based upon how marketing plays a major role in developing India's start-up market and how it helps creating a change in the user perception of startups. Marketing is one of the major components of start-ups along with the user perception which plays a key role for its success. Marketing bridges the communication gap between the service provider and consumer. And the consumer perception provides the success path to the start-up. So, this study shows the impact of marketing in user perception of startups.

Keywords: Marketing, User-perception, Startup, entrepreneurship, LGP and GDP.

### Introduction:

India is the fifth largest economy in the world. India has great potential and has over thousands of companies. Each and every company is a startup in its early stage. A startup is the idea of an entrepreneur who comes up with a product or a service which eases the life of the consumer in certain ways. Startups do not become a success overnight instead it requires a lot of patience, immense planning and also a positive user response. In 1990s, the entrepreneurs who had a business idea were not able to execute it due to lack of resources like capital, labor force, wide market, government policies etc. The trend of start-ups began after the LPG policy of 1991 taken by union finance minister Dr. Manmohan Singh under the presidency of P.V Narasimha Rao. This policy gave a boost

to India's GDP and encouraging several entrepreneurs to convert their ideas into business. And it attracted many foreign investors getting into India's markets. The major mistakes done by a firm during its early stage is failing to notice the importance of marketing their brand image along with getting a good user review. If a firm does not market itself standardly then it can neither get the user review nor attain success. Startup overcomes several problems in finance, shipping and deliveries, staff hires but they face failure in proper marketing of the product or services. Startups fail to understand that one bad review can end their firm and also that every user's review is important. Marketing methods cost a lot more in the initial stages and also is necessary for the success of startups. Other aspects are for sure essential for the company but marketing is needed to expand their base and reach out to customers far out.

#### □ Startup

The objective of any startup is to find out unique solutions for any complicated problems, to resolve the past problem in a creative and efficient way and to satisfy its user. The Dictionary defines Startups as a small business that has just been started. But during this research we have come across many cases which have gone beyond the boundaries of this definition. A more popular definition is from Eric Ries, he says, "A startup is a human institution designed to create a new product or service under conditions of extreme uncertainty". So, when we look at these two definitions together, we get a broader, more holistic perspective about startup. People generally don't put Facebook and Amazon in the same category but when we look at it as startups, we can say that most companies began as a startup and thus proving that startups don't generally have to be small. Startups thrive hard towards innovation, development, deployment, or commercialization of new products or service.

#### □ User Perception

User perception is simply a consumer's first impressions, response or ideas of a new product or service. These perceptions or pre-notions are based on the expected utility, efficiency, aesthetic appeal, ease of use and public opinion of the product or service. This arises from a mere anticipation of how the product or service might benefit its user. User perception is subjective in nature and also differs from person to person. An entrepreneur expands his idea but the user perception decides its development and success. And the user perception is considered as one of the important factors in a firm.

### □ Role of The Government for Startup

In the age of globalization and economic crises around the world, the Indian government is now open or rather sensitive and adhering to the ideas and developing trends in the world of commerce. The whole concept of startup companies acts as a boon for the government itself as it generates employment and also increases the standard of living of its citizens which is otherwise now a herculean task for the government. So, the 21st century government finds it rather beneficial to encourage and have proper regulations for startups in order to speed up the economic growth of the countries. There are many other state level and national level programs, policies, benefits and initiatives taken by the government towards startup. Honorable Prime Minister Narendra Modi introduced “Startup India, Standup India” schemes to promote Bank Financing for startups and offer incentives to boost entrepreneurship and job creation.

### □ Entrepreneur

An entrepreneur is an individual who creates a new business. They are also seen as innovators and source of several ideas. An entrepreneur requires many skills and talents in managing or developing the startup. Not everybody can be a successful entrepreneur, but hard work and dedication is required to become one. In the daily course of business, an entrepreneur faces a lot of risks but these risks can be highly rewardable to the firm and also to the entrepreneur.

### Research Problem:

During its initial stage, people are not aware of the product or service provided by startups which are available at their fingertips. Also, the inconvenience and hesitation of trying something new plays a crucial role in this research. As Indians, we do not stray ourselves away from traditional and established organizations and incline towards the same product or service. We have also advanced our wants and also our satisfaction level has increased. Entrepreneurs have a primary motive of earning profit rather than marketing their services which has social and mutual benefit. These factors led us to the question, why marketing strategies play such a vital role in the success of a startup and also the impact it has on its user. Also, it gives us an overview of how the shift from traditional marketing strategies to modern marketing strategies increases the outcomes of the business venture to a greater scale. As people are becoming more adaptive towards the impact of new technological

advancements and have an urge to try something new, modern startups should also flourish along with the needs and wants of a consumer. It should also provide maximum utility and satisfaction with lesser grievances.

Scope of study:

This research paper is titled “A study on the user perception over the marketing strategies of startups in India” gives us an overview of the important role played by the general public and marketing in the blooming of startups. This study includes general public’s perception and thoughts about marketing strategies of startups. There are also some suggestions and limitations of the research.

Objective of the study:

- To understand the meaning of startup and marketing.
- To recognize the importance of marketing strategies in startups.
- To evaluate the user perception on the startups.
- To understand the impact of marketing strategies on user.
- To advise on marketing strategies and its value for the success of a startup.

Hypothesis:

H0- There is no significant relationship between marketing and strategies and the development of startup.

H1- There

is significant relationship between marketing and strategies and the development of startup.

Research design:

An organized questionnaire has been used in this study to collect data from age group 18 and above from various parts of the country. Although majority of responses has been recorded from South India due to lack of resources, the data collected is first hand from people of occupation from different field. Google forms have been used for the collection of data. 100 responses have been collected for data analysis. Sampling method has been used to analyze and interpret the data and the results are given therefore.

#### Limitations:

- This study was conducted within India.
- This research completely focuses on the marketing aspect of a startup.
- Primary data was collected from random samples.
- This research is a theoretical based.

#### Conclusion:

In this study it was found marketing plays an essential role in the success of a startup. In the previous studies researchers only focused on the various aspects of the company like their business model, operations, sales and development whereas their area of interest was lacking in giving importance to marketing strategies and its impact on users. So, this study bridges the gap and provides an overall understanding on how marketing strategies helps in development of startups. This study can also pave way for future researchers to do an in-depth study on the related topic. Therefore, from this research we can prove the alternative hypothesis which states that the marketing strategies does have a relationship with the development of startups.

## **A STUDY ON EMPLOYEES SATISFACTION TOWARDS ONLINE FOOD DELIVERY COMPANIES IN COIMBATORE**

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### **ABSTRACT**

“A happy employee is a productive employee” is a quote which says that this can be achieved by satisfying the employees. Employee satisfaction is a factor in motivation, retention and goal achievement in the place of work and commitment is a factor that include no excess work load, treating employee with respect, provide recognition & rewards, fringe benefits and positive management. The main purpose of the study is to identify the satisfaction level of employees towards online food delivery service companies in the Coimbatore as it is necessary to know the employee’s satisfaction of delivery companies since delivery becomes predominant role after Covid 19. The evolution of technology and change of lifestyle has led to the prodigious growth of the food delivery services in the recent times. Food delivery fostered through digital applications play a vital role in food industry. Food ordering through online is the way of ordering customers preferred food by using website of the restaurant or food delivery apps. One out of every four customer makes use of food ordering app in their mobile which was revealed in recent study. And it has been concluded that the employees are not satisfied with their job timings, salary etc. companies can make various polices and measures to improve the satisfaction level of employees so that their socio-economic conditions will also get improved.

**Keywords: food delivery, online, employee satisfaction**

## INTRODUCTION

Online food delivery platforms are expanding choice and convenience along with great deals and discounts, allowing customers to order from a wide array of restaurants with a single tap of their mobile phone. Food delivery has become a business on its own with various online platforms competing to secure a market share. Although these online platforms attract huge investment and high valuation, they are transforming the business of food delivery.

The most common type of food delivery has always been the traditional restaurant model. Under this model, a customer walks into a restaurant and places their order. They then wait for the restaurant to meet the order and bring the food at their table or at the checkout center. Instead of going to the restaurant, customers are now placing their orders via restaurant apps and websites. As a result, the food delivery business is fast catching up across markets of America, Asia, Europe, and the Middle East.

In the midst of the global 2020 COVID-19 outbreak, the advantages of online food delivery (FD) were obvious as it facilitated consumer access to prepared meals and enabled food providers to keep operating. Using the three pillars of sustainability as a lens through which to consider the impacts, this review presents the most up-to-date research in this field revealing a raft of positive and negative impacts. From an economic standpoint, online FD while providing job and sale opportunities has been criticized for high commissions it charges restaurants and questionable working conditions for delivery people.

While some do it themselves through independent platforms, there has been a significant increase in third-party platforms like Uber Eats and Delivery Hero. Hybrid delivery platforms are also eating part of the market share, transforming how ordered food is delivered. For their part, restaurant's assure transparency and convenience in their services. Once the order had been placed online, the restaurant fulfills it by ensuring the food is delivered to the customer's

home. To deliver the foods employees play an important role. They are the backbone of the delivery companies. The study covers about the satisfaction of employees working in online food delivery companies like Swiggy, Zomato and Uber Eats in the Coimbatore city

#### OBJECTIVE OF THE STUDY

- To analyze the employees job satisfaction of food delivery companies in Coimbatore.

#### RESEARCH METHODOLOGY

This study is based on empirical research by conduction survey method. It is purely primary data based on primary data from 29 respondents following convenience sampling method and percentage analysis has been made. A well-structured questionnaire was administered to analyze the employee's satisfaction towards the online food delivery companies in Coimbatore.

#### ANALYSIS AND INTERPRETATION

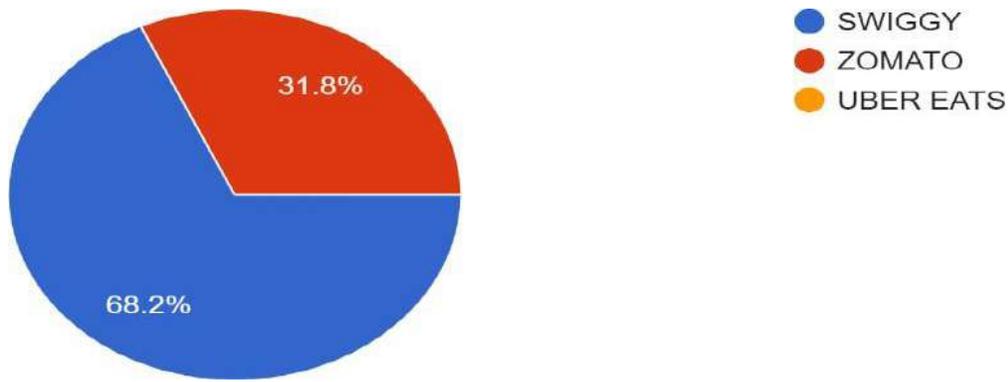
**TABLE 1**

#### EMPLOYEES PREFERANCE TOWARDS ONLINE FOOD DELIVERY COMPANIES

Regarding company preference	No of respondents	Percentage
Swiggy	21	72.4%
Zomato	7	24.1%
Uber Eats	1	3.4%
<b>Total</b>	<b>29</b>	<b>100%</b>

#### Interpretation:

The above shows that 72.4% of the respondents has preferred towards Swiggy category, 24.1% of the respondents has preferred Zomato category and 3.4% of the respondents has preferred Uber Eats. Majority of the respondents belong to 72.4%.



**TABLE 2**

**EMPLOYEE SATISFACTION ON SALARY**

Regarding Satisfaction on Salary	No. of Respondents	Percentage
Very Satisfied	1	3.4%
Satisfied	19	65.5%
Neutral	5	17.2%
Dissatisfied	4	13.8%
Very Dissatisfied	-	-
TOTAL	29	100%

**Interpretation:**

The above table shows that 3.4% of the respondents belong to very satisfied category, 65.5% of the respondents belong to satisfied category, 17.2% of the respondents belong to neutral category and 13.8% of the respondents belong to dissatisfied category.

Majority of the respondents belong to (65.5%).

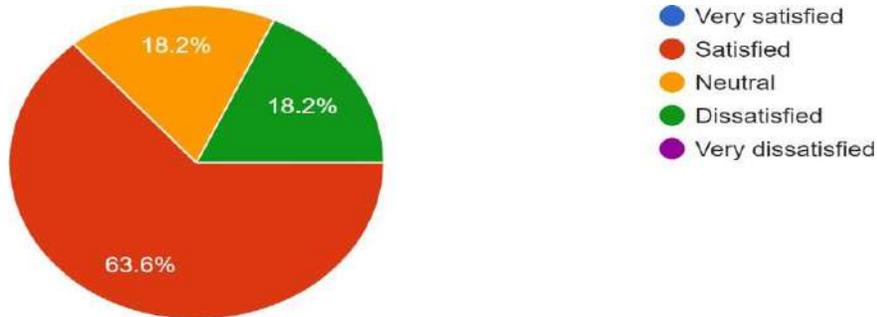


TABLE 3

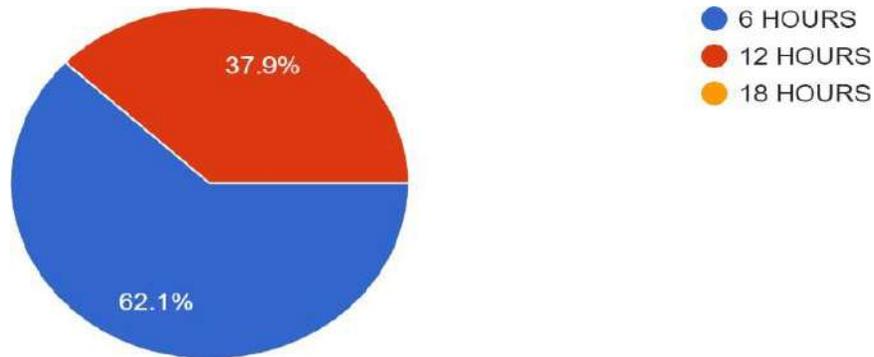
EMPLOYEE SATISFACTION ON DURATION OF WORK

Regarding Duration of Work	No. of Respondents	Percentage
6	18	62.1%
12	11	37.9%
18	-	-
TOTAL	29	100%

Interpretation

The above table shows that 62.1% of the respondents prefer 6 hours category and 37.9%

of the respondents prefer 12 hours category.



## CONCLUSION

It is concluded that the food delivering employees were not satisfied by the needs provided by the company. The employees were not satisfied with the salaries that they received. Thus, the satisfaction of the employees can be increased by giving more salaries. It will create a good image in the society also. And the employees are very much stressed about their job timings since its very lengthy and inflexible. Finally, the study concluded that the employees of Food Delivery Companies in Coimbatore were not satisfied with their work in the terms of salary, job timings.

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## TO STUDY ON TRENDS OF DIGITAL SECURITY AND THE ROLE OF SOCIAL MEDIA IN DIGITAL SECURITY.

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Digital Security accepts a vigorous role in the area of information technology. Safeguarding the information has become an enormous problem in the current day. The Digital security the main thing that originates in mind is 'cyber crimes' which are aggregate colossally daily. Different governments and organizations are taking numerous measures to keep these cyber wrongdoings. Other than different measures Digital security is as yet a significant worry to many. This paper mostly emphasizes on Digital security and cyber terrorism. The significant trends of Digital security and the consequence of Digital security discuss in it. The cyber-terrorism could make associations lose billions of dollars in the region of organizations. The paper also explains the components of cyber terrorism and motivation of it. Two case studies related to Digital security also provide in this paper. Some solution about Digital security and cyber terrorism also explain in it.

Keywords: Digital security, cyberspace, cyber terrorism, Information security.

### Introduction

Today an individual can receive and send any information may be video, or an email or only through the click of a button but did s/he ever ponder how safe this information transmitted to another individual strongly with no spillage of data? The proper response lies in Digital security. Today more

than 61% of full industry exchanges are done on the internet, so this area prerequisite high quality of security for direct and best exchanges. Thus, Digital security has become a most recent issue (Dervojeda, et. all., 2014). The extent of Digital security does not merely restrict to verifying the data in IT industry yet also to different fields like cyberspace and so forth. Improving Digital security and ensuring that necessary data systems are vital to each country's security and financial prosperity.

Creating the Internet safer (and safeguarding Internet clients) has become to be essential to the improvement of new management just as a legislative strategy. The encounter against cybercrime needs an extensive and more secure practice (Gross, Canetti & Vashdi, 2017). The particular estimates alone cannot keep any crime; it is essential that law authorization offices are allowable to investigation and indict cybercrime efficiently. Nowadays numerous countries and administrations are compelling strict rules on cyber safeties to keep the loss of some vital data. Each should be equipped on this Digital security and save themselves from these increasing cybercrimes.

Digital-security is both about the insecurity made by and through this new space and about the practices or procedures to make it (progressively) secure (Kumar, & Somani, 2018). It alludes to a lot of exercises and measures, both specialized and non-specialized, expected to ensure the bioelectrical condition and the information it contains and transports from all possible threats. This research aims to gather all the information and overview related to cyber-crime and provide the historical facts and perform reports on the analyzed data of different attacks reported everywhere in the last five years. Based on the analyzed information, we would like to provide all the countermeasures that organizations may undertake in order to ensure improved security that would support in defending the organizations from being attacked by the hackers and provide a Digital-security to avoid all risks.

## 1. Purpose

The paper provides information about Digital security and cyber terrorism. It covers various information about these topics in its subsections. Trends of Digital security and the role of social media in Digital security define in this paper. The paper provides some necessary information about cyber terrorism. The components of “cyber terrorism” and the consequences of this terrorism also

explain in this paper. There are some examples of case studies those related to Digital security. The paper also provides some solutions regarding Digital security and cyber terrorism. It provides some techniques for preventing cyber terrorism. The future study and scope of Digital security define in it.

Digital security has become a major concern over the last 10 year in the IT world. In the present world, everybody is facing a lot of problems with cyber- crime. As hackers are hacking major sensitive information from government and some enterprise organizations the individuals are very much worried as Digital- security assault can bring about everything from wholesale fraud, to blackmail big companies. They are many varieties of cyber-crimes emerging where everyone

needs to be aware of the scams and they are different measures and tools which can be used for avoiding the cyber-crimes. Every organization wants to secure their confidential data from getting hacked. Getting hacked is not just about losing the confidential data but losing the relationship with customers in the market (Bendovschi, 2015).

The Internet is today's fastest growing infrastructure. In today's technical environment many new technologies are changing mankind. But due to these emerging technologies, we are unable to protect our private information in an efficient way, so the cyber-crimes are drastically increasing on daily basis. Majority of the transactions both commercial and personal are done using the means online transaction, so it is important to have an expertise who require a high quality of security maintaining a better transparency to everyone and having safer transactions. So Digital security is the latest issue. Advanced technologies like cloud services, mobiles, E-commerce, internet banking and many more they require a high standards and safer process of security. All the tools and technologies involved for these transactions hold the most sensitive and crucial user information. So providing the necessary security to them is very important. Improving the Digital security and safeguarding the sensitive data and infrastructures are important to every countries top priority security (Panchanatham, 2015).

## 2. Trends of Digital Security

Digital Security assumes a critical role in the area of data technology. Safeguarding the data have become the greatest difficulty in the current day. The Digital security the main thing that raids a chord is cybercrimes which are increasing tremendously step by step (Samuel, & Osman, 2014). Different administrations and organizations are taking many measures to keep these cybercrimes. Additional the different measures Digital security is as yet an enormous worry to numerous. Some main trends that are changing Digital security give as follows:

### 2.1. Web servers

The risk of assaults on web applications to separate information or to circulate malicious code perseveres. Cybercriminals convey their code using good web servers they have traded off. In any case, information taking attacks, a considerable lot of which get the deliberation of media, are also a significant risk. Currently, individuals need a more unusual accentuation on securing web servers

as well as web applications (Bendovschi, 2015). Web servers are mainly the pre- eminent stage for these cybercriminals to take the information. Thus, one should reliably utilize an additional secure program, mainly amid vital exchanges all together not to fall as a quarry for these defilements.

### 2.2. Mobile Networks

The risk of assaults on web applications to separate information or to circulate malicious code perseveres. Cybercriminals convey their code using good web servers they have traded off. In any case, information taking attacks, a considerable lot of which get the deliberation of media, are also a significant risk. Currently, individuals need a more unusual accentuation on securing web servers as well as web applications (Bendovschi, 2015). Web servers are mainly the pre- eminent stage for these cybercriminals to take the information. Thus, one should reliably utilize an additional secure program, mainly amid vital exchanges all together not to fall as a quarry for these defilements.

### 2.3. Encryption

It is the method toward encoding messages so programmers cannot scrutinize it. In encryption, the message is encoded by encryption, changing it into a stirred-up figure content. It commonly completes with the use of an “encryption key,” that demonstrates how the message is to encode. Encryption at the earliest reference point level secures information protection and its respectability (Sharma, 2012). Additional use of encryption obtains more problems in Digital security. Encryption is used to ensure the information in travel, for instance, the information being exchanged using systems (for example the Internet, online business), mobile phones, wireless radios and so on.

### 2.4. ADP’s and targeted attacks

Advanced Persistent Threat (APT) is a whole of the dimension of cybercrime ware. For quite a long time network security capacities. For example, IPS or web filtering have had a key influence in distinguishing such focused-on assaults (Bendovschi, 2015). As attackers become bolder and utilize increasingly dubious methods, network security must incorporate with other security benefits to identify assaults. Thus, one must recover our security procedures to counteract more dangers coming later on. Subsequently the above is a portion of the patterns

changing the essence of Digital security on the planet. The top network threats are showing in figure 1.

Figure 1. Threats for Cyber Security

### 3. Role of Social Media in Digital Security

Social media has turned into a lifestyle for some individuals. We use it to stay in contact, plan occasions, share our photographs and comment on recent developments. It has replaced email and telephone requires a ton of us. However, similarly as with whatever else on the web, it is imperative to know about the dangers. PCs, cell phones, and different gadgets are priceless assets that furnish people of any age with the extraordinary capacity to connect and collaborate with whatever remains of the world. Individuals can do this in various ways, including the utilization of social media or networking sites.

Courtesy of social media, people can share musings, pictures, exercises, or any part of their lives (Gross, Canetti & Vashdi, 2017). They can bring an unknown look into the lives of others, regardless of whether they live nearby or over the globe. Unfortunately, these networks additionally represent security toward one's PC, protection, and even their security. Social media collection among faculty is soaring as is the risk of assault (Sharma, 2012). Since social media sites are nearly utilized by the majority of them reliably, it has become an excellent stage for cybercriminals for hacking private data and taking significant data.

The organizations need to assure they are likewise as fast in recognizing dangers, reacting increasingly, and keeping away from a rupture of any sort. Subsequently, individuals must take suitable measures particularly in managing social media to keep the loss of their data. The capacity of persons to impart data to a group of persons of millions is at the core of the exact test that social media offerings to organizations (Cabaj, Kotulski, Książopolski, & Mazurczyk, 2018). Nevertheless, enabling anyone to disperse financially delicate data, social media additionally gives a comparable ability to range false data. It can be merely being as harming. The rapid spread of incorrect information by social media is among the growing dangers. Though social media can utilize for cybercrimes, these organizations cannot stand to quit utilizing social media as it assumes an essential role in the attention of an organization. In its place, they should have arrangements that will inform them of the risk to fix it before any actual harm is done (Derojeda, Verzijl, Nagtegaal, Lengton, & Rouwmaat, 2014). Anyway, organizations should understand this and observe the meaning of breaking down the data chiefly in social deliberations and give good security plans to avoid dangers. One must contract with social media by using specific plans and the right technologies.

#### 4. Cyber Terrorism

The term “terrorism” can allude to the illegal utilization of power or viciousness against people in order to threaten an administration or its residents and associations which might be to accomplish a political or a malicious site [10]. Terrorism has transformed from the conventional structure to the cyber type of innovation supported terrorism recognized as cyber terrorism. It stays vital issues of the present society. Not just that the battle against terrorism is falling behind, current cybercrime assaults are ending up progressively forceful and confrontational (Sharma, 2012). This terrorism is the utilization of cyber word to dispatch an assault to the essential foundations that the presence of associations and countries entirely depended after that can prompt its shut down.

#### 4.1. Components of Cyber Terrorism

A few attacks as cyber terrorism have a few parts which have been distinguished by numerous observational researchers in the exploration network. As indicated by Samuel and Osman (2014) in their hypothetical model recognize the five sections that a “cyber-terrorism” classified they are; the objective of the violence, inspiration and dedication towards the mission to be accomplished when such incident takes place, impact, instruments are utilized to dispatch such assault

and attacking’s, area which is nature just as the strategy for activity. It can confidently know by knowing the profile of activities that drive the actions of the culprits (Kumar, & Somani, 2018).

The critical issue in “cyber terrorism” is the motivation to complete such an action on the Internet, that outcomes in savagery/damage to people and their property Dervojeda, Verzijl, Nagtegaal, Lengton, & Rouwmaat, 2014). It is by a portion of the segments. The terrorists of the world proceed the upside of the cyber world with solid incentive as a stage with which they can use to dispatch more unusual outbreak. Yunos and Ahmad (2014) said that with the utilization of Information and correspondence innovation, a terrorist could present more noteworthy harms or exact the republic with troublesome conditions because of the interruption of necessary administrations that the “cyberspace terrorist” causes more damage and devastation by the cyberspace than done the conventional strategy for terrorism.

#### 4.2. Motivating Factor of Cyber Terrorism

The motivating factors of cyber terrorism give as follows:

##### 4.2.1. Websites’ Supportive Nature:

The internet has viewed as a medium that is exceptionally tremendous, and that can in the meantime draw in light of a legitimate concern for some individuals to join some group of interest. The cyberterrorist prefers the utilization of the website as a result of its robust nature in that it can refer a message to a great many individuals inside a twinkle of an eye; they consider it to be a stage that is anything but difficult to select absorbed individuals.

##### 4.2.2. Anonymity Nature of the internet:

Anonymity is the pivotal element that each evil culprit leans towards with the goal that their character could not be recognizable after playing out their devilish act. The Internet is a sheltered domain just

as concealing stage for the terrorist as they can stay unknown so that their personality cannot be known.

#### 4.2.3. Hacking:

The overall term of all kinds of unapproved access to any "computer system" network organize is hacking that can occur in any structure all things measured as "cyber murder." A large number of these hackers make use of a "brute force" which is the combinations of every single imaginable letter just as numbers and images till they get the password Sreenu, & Krishna, 2017).

#### 4.2.4. Computer Viruses:

These viruses are here and there scattered on a system to in other to do hurtful exercises. These may be to fill in as an administrative agent, create information or even split down the system.

#### 4.2.5. Password Sniffing:

The "Cyber terrorist" may use one of the technique such as password sniff as procedures to complete their "cyber-attack" on different countries and many big organizations to see their downfall and have control over their systems. The password sniffer is programming which uses to screen organize and in the meantime catch all the password that passes the system connector.

### 4.3. Consequences of "Cyber Terrorism"

Cyber terrorism is an original type of cyber danger and attack that has many outcomes connected to it when propelled against any countries and associations. Some consequences of cyber terrorism define as follows:

#### 4.3.1. Data Intrusion:

The cyber terrorism can annihilate information honesty with the goal that the information could never again be trusted, pulverizing its classification as intruding on its accessibility. The expanding rate of this cyber terrorism in encroaching associations and country's information has produced a ton of

difficulties which has come about in loss of vitals and critical information that is typically difficult to recover (Sutton, 2017).

#### 4.3.2. The attack on Businesses:

The cyber-terrorism could make associations lose billions of dollars in the region of organizations. The data arrangement of a bank can be attacked or hack through the terrorists who will prompt unapproved access to such financial balance and make them lose gigantic millions of dollars which can create such bank to keep running into bankruptcy (Gade, & Reddy, 2014).

#### 4.3.3. Loss of Life:

Cyber terrorism has guaranteed many acquitted lives and in the meantime render numerous homes to a condition of the problem that is occasionally coming about to mental injury to the influenced families. The “cyber-terrorism” can in one method or alternate prompts the death toll just as causing severe harms. It has shown in an attack on the PCs utilization, networks’ as well as attacks that have come about to the different types of blasts of a few plane accidents issues everywhere throughout the world which that has asserted numerous life (Cabaj, Kotulski, Książopolski, & Mazurczyk, 2018).

#### 4.3.4. Consumer Trust in Doubt:

The development of any organizations and its support relies upon the trust that its purchaser has on such association as trust can see tools that fortify association and certainty among associations and clients.

### 5. Case Study Examples

#### 5.1. Digital Security in E-Governance case study

E-Governance is the extension of the efforts completed through the governments to recover relations with their nationals. With its instilled straightforwardness and receptiveness, given the standards of the Internet, E- Governance conveys governments all the more near their residents. Existing and potential dangers in the circle of Digital security are among the most genuine difficulties of the 21st century. To ensure E-Governance extends there is a requirement for data security best practices (Hua, & Bapna, 2013). Security policies, practices, and techniques must be set up just as the use of security technology. It helps to ensure e-Government systems against attack, recognizes great exercises

administrations and to have a demonstrated alternate course of action set up. An open private organization is a vital part of Digital security in E- Governance. These associations can conveniently go up against coordination issues. Powerful cyber-crime prevention and arraignment activities in all the ICT appropriate conditions.

## 5.2. Kaspersky Kidnapping Case

The “highest-profile” cyber surveillance, stalking, and kidnapping case included Ivan Kaspersky, child of the administrator and CEO of Russia-based Kaspersky Lab, a standout amongst the most unmistakable Digital security firms on the planet. Ivan Kaspersky was abducted for payoff in 2011 while strolling to work from his Moscow loft. As indicated by Russian media sources, beginners – a more seasoned obligated couple – organized the plot and enrolled their child and two of his companions as "muscle" for the plot (Cabaj, Kotulski, Książopolski, & Mazurczyk, 2018). The abductors stalked Kaspersky and his sweetheart for a while preceding the seizing, deciding his conduct standards and finding that he did not

have a protective security detail. The hijackers supposedly acquired all the required data from Kaspersky's client profile on Vkontakte, a famous Russian social systems administration site. Kaspersky was compelled to call his dad to transfer the payoff requests (Gade, & Reddy, 2014). The abductors may have utilized similar wireless to make food deliveries or had geolocation administrations empowered.

## 5.3. Uber Case study

Data breaches happen every day, in too many places, but the risk of data breach doesn't necessarily depend on the number, it may also depend on the risk and damage it causes the company's revenue and impact on the users or account holders, one of the biggest recent data breaches is Uber.

### 5.3.1. Impact:

One of the recent major cyber-attack is data breach of personal information of around 57million Uber users and 600,000 Uber drivers got revealed.

### 5.3.2. Details:

The worst part of this attack is how the Uber handled the issue, this is a lesson to most companies what not to do. In late 2016 just two hackers were able to steel the Users personal data with includes

names, phone numbers and email addresses. They were able to steal the 600,000 driver's license information. Hackers got access to the Uber's GitHub account through a third-party cloud-based service. With the details found from the GitHub, Hackers found a way to access Uber user data in AWS. Uber paid those two hackers \$100,000 to permanently destroy the whole data they obtained and not letting the users or the regulators about stolen information.

But also, Uber confirmed that data was destroyed with the assurance they received from the hackers. According to US Law enforcement, any breach should be reported to the authorities and not pay hackers. And this kind of approach from Uber led other hackers to blackmail Netflix, where Hackers frightened to release TV shows unless the company paid the money hackers requested. Almost 49 states have this law enforcement where a security breach should be notified, after the court hearings Uber agreed to pay 20million to settle FTC charges. Not only the US but also other major countries like UK, Italy, and the Philippines reacted on this

issue. Uber's breach is different from the regular breaches, the company tried to cover up the breach and not alert the authorities and the users.

### 5.3.3. Uber's plan after the breach:

Khrosrowshabi the new CEO of Uber received few disputed problems only with respect to its legal issue also criticism for sexual harassment, underpaying the drivers and few more.

### 5.3.4. Solutions

Some solutions regarding Digital security and cyber terrorism describe here:

- Digital Security Techniques

Some techniques can use to improve Digital security.

- Access control and “password security”: The idea of password and user name has a primary method for ensuring data. It may be the principal measures concerning Digital security.
- Data’s Authentication: The documents that we get should dependably be validated before transferring. It should check if it has begun from a critical and dependable source and that they are not modified (Gade, & Reddy, 2014). Verifying of these records is typically done by the “anti- virus”

software present in the gadgets. Subsequently, a decent “anti- virus” software is likewise necessary to shield the gadgets from viruses.

- Anti-virus software: It is a PC program that classifies, avoids, and makes a move to harm or evacuate noxious software programs, for instance, viruses as well as worms. Most "antivirus programs" comprise an "auto- update" feature that authorizes the program to download profiles of new viruses with the objective that it can checker for the new viruses when they find.
- Malware scanners: This is software that typically filters each of the records and archives current in the framework for vindictive code or destructive viruses [10]. Viruses, worms, as well as Trojan horses, are instances of “malicious software” that regularly assemble and alluded to as malware.
- Firewall: A “software program” or an equipment that helps monitor hackers, infections, and all types of worms which endeavour to achieve PC over the Internet. All data which is transmitting to and fro over the web go through the firewall contemporary, which looks at every

individual message and hinders which do not meet the security requirements and classify them as threat and try to block from the system and monitor the activities. Henceforth firewalls assume an essential job in recognizing the malware.

#### 5.4. Prevention of Cyber Terrorism

The capacity to prevent cyber terrorism lies with the capacity to securely verify cyberspace. Digital security has an intriguing parallel to terrorism. Both are lopsided. Guaranteeing the security of information, data, and correspondence is impressively harder than hacking into a framework. The attacker has an inalienable preferred standpoint in both regular terrorism and cyber-attacks. On account of state-supported attacks, the difficulties are of a lot higher greatness (Cabaj, Kotulski, Książopolski, & Mazurczyk, 2018). Governments should guarantee that their rules smear to cybercrimes and be wholly actualized and hold fast to; it is essential that the countries of the biosphere take measures to guarantee that its punitive and technical law is satisfactory to address the difficulties presented by cybercrimes (Kumar, & Somani, 2018).

The availability, confidentiality and the integrity of information in any associations are essential which endeavors must be set up to guarantee that they are exceptionally secure because it is the significant cyber resource that makes each association stand and in the meantime depended upon. The information has entered by the “cyber-terrorist” is something beyond records which may incorporate messages, web applications, web pages, and just as some indispensable operating systems. (Kumar, & Somani, 2018)

## 6. Future Study and Scope

This paper will help to advance the scientific interests in the exploration of Digital security, particularly to respond to the procedural questions of the prediction of future data and actions significant to security patterns. This study sets the background to begin executing rules for all intentions as indicated through the usual security issues and answers for data systems. This paper consolidates many procedures connected and may be improved to serve Digital security regarding anticipating the operational legitimacy of the methodologies of assessment benchmarks. Finally, the emphasis on limiting, recouping, and disposing of weakness is the primary, basic patterns, and reactions to the constant expanding progress (Panchanatham, 2015).

Over the next five years, cyber-crime may create severe damage in information technology. According to the researchers they have estimated an approximate close to 6 trillion dollars loss. So, there would be a very bright scope for people who work and resolve the issues related to cyber-crime and provide all the necessary security measures. Big organizations like CISCO which is completely related to networking technology which is one of the top organization has approximately millions of openings related to Digital security because which is the future for the safety of Information technology. They are also wide opportunities in government-related fields and also defence field to save the countries secure data from cyber attackers.

## 7. Conclusion

Digital-security is both about the insecurity made by and through this new space and about the practices or procedures to make it (progressively) secure. Exertion to verify the cyberspace should

give a definitive need else the "information technology" will not be viably used by clients. The terrorist of things to come will win the wars without discharging a shot just by crushing the country's necessary substructure if steps are not taken to handle the pervasiveness of the expansion in such a cyber-attack. They can bring an unknown look into the lives of others, regardless of whether they live nearby or over the globe.

The "cyber-terrorism" can in one method or alternate prompts the death toll just as causing severe harms. Though social media can utilize for cybercrimes, these organizations cannot stand to quit utilizing social media as it assumes an essential role in the attention of an organization. Cyber terrorism has guaranteed numerous innocent lives and in the meantime render numerous homes to a condition of the problem that is occasionally coming about to mental injury to the influenced families. Cyber terrorism stays vital issues of the present society. Not just that the battle against Cyber terrorism is falling behind, current cybercrime assaults are ending up progressively forceful and confrontational. Digital security has an intriguing parallel to terrorism. Guaranteeing the security of information, data, and correspondence is impressively harder than hacking into a system.

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## AN EVENT STUDY OF STOCK MARKET BEHAVIOUR DURING PRE AND POST-MERGER PERIOD OF SELECTED PUBLIC SECTOR BANKS

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### Abstract

The significance of mergers and acquisitions as a strategy employed by public and private sector banks to accomplish their organisational objectives is demonstrated by the rise in these operations over the past several years. Despite the topicality of the matter and its practical significance, the possible impact of such a merger announcement on the stock prices of the concerned banking industry has not been carefully investigated. In this study, the stock market response to news of prospective mergers or acquisitions by certain public sector banks was empirically examined. The research objective is achieved by applying standard market event model covering 15 and 30 day windows period. For testing the significance of hypothesis we have used t-test. It has been concluded that for the period of 15 day windows, the null hypothesis is accepted that means M&A announcements have no significant impact on the share price of banks and for 30 day windows, M&A announcements have significant impact on the share prices.

**Key words:** Stock Market, Event Study, Public Sector Bank, Merger & Acquisition, CAAR

### Introduction

For a company to grow or expand, it needs financial resources. Resources from within the company and outside the company are both employed to accomplish growth. Retained profits are the primary internal resource that business organisations rely on for revenue growth. However, when internal resources are scarce, firms that have considerable growth prospects rely more on outside resources. Bank loans, joint ventures, corporate mergers, and purchases of other businesses are a few examples of external funding options. Acquisitions and mergers (M&A) are a recent method used for corporate growth. However, mergers and acquisitions were not frequently employed in developing nations like India in the early 1990s, but are now emerging as a strategy that supports economic growth and expansion. Hence the effect of these transactions has to be quantified. As a result, the goal of this

study is to examine the consequences of mergers and acquisitions both before and after they occur. This study's primary goal is to examine how mergers and acquisitions affect shareholder wealth in selected public sector banks. For this purpose the Event is Merger and Acquisition deal and the Event Date is the announcement date of the merger which is listed below in Table 1.

**Table: 1**

S. N	Acquirer Bank	Merged Bank	Event Date
1	State Bank of India	State Bank of Patiala	18 Aug 2016
2	State Bank of India	State Bank of Hyderabad	18 Aug 2016
3	State Bank of India	State Bank of Bikaner & Jaipur	18 Aug 2016
4	State Bank of India	Bharatiya Mahila Bank Ltd.	18 Aug 2016
5	State Bank of India	State Bank of Mysore	18 Aug 2016
6	State Bank of India	State Bank of Travancore	18 Aug 2016
7	Punjab National Bank	United Bank of India	05 Sep 2019
8	Punjab National Bank	Oriented Bank of Commerce	05 Sep 2019
9	Union Bank of India	Corporation Bank	09 Sep 2019
10	Union Bank of India	Andhra Bank	09 Sep 2019
11	Canara Bank	Syndicate Bank	13 Sep 2019
12	Indian Bank	Allahabad Bank	16 Sep 2019

Source: The event dates have been collected from Prowess IQ database.

### Literature Review

**Nurhayati, Endri & all (2022), "Islamic Bank Merger and Economic Crisis: Event Study Analysis"** it has been investigated that how the announcement that three significant Indonesian Islamic banks, BNIS, BRIS, and BSM, will merge to establish Bank Indonesia Islamic affected stock

prices (BRIS is symbolised on the stock exchange). This study examines if there are unusual returns over a 14-day window prior to and following the merger announcement. The anomalous returns and risks were calculated using Sharpe's single-index model using BRIS daily stock prices, market indices, and trading volumes. Following the merger announcement, stock returns and trading volumes respond favourably, with a strong alpha of 5%, according to statistical test results.

**Pandey & Kumari (2020), “EFFECTS OF MERGER AND ACQUISITION ANNOUNCEMENTS ON STOCK RETURNS: AN EMPIRICAL STUDY OF BANKS LISTED ON NSE AND NYSE”** we evaluated the effects of merger and acquisition announcements on equity returns for a sample of 14 banks in India and the US using the Event Research (US) methodology. The study comes to the conclusion that such news prompts abnormal returns around the publication date and affects the response of stock prices, even if various markets react in different ways. More susceptible to this information than the mature US market is the growing Indian market. This is a result of the Cumulative Average Abnormal Return (CAAR), which is relevant for the proportion of Indian acquiring banks during the majority of days of the event window and post-event hours.

**Chhetri & Baral (2018) “ Event Study of Effect of Merger Announcement on Stock Price in Nepal”** had studied that events like mergers and acquisitions have an impact on the value of the combined firm and can increase or decrease shareholder wealth. This study aims to determine if merger announcements have affected bidders' and target companies' shareholders' wealth and to gauge the effect on the banking industry as a whole. In this study, two models—the average-adjusted model and the market-risk-adjusted model—were employed. This study looked into if there are any anomalous returns linked to merger announcements using a "event study" methodology. The study's findings included the announcement of a merger proposal and aberrant returns of individual firms prior to the merger that were not statistically significant.

**Rahman, Ali & Jebran (2017) “The effects of mergers and acquisitions on stock price behaviour in banking sector of Pakistan”** had examined that Acquisitions and mergers are regarded as one of the tactics that aid in the growth and expansion of enterprises. While these tactics are often used in wealthy nations, they are also frequently used in developing nations like Pakistan. This study uses event research methodology to look at the effects of mergers and acquisitions on the stock price behaviour of Pakistan's banking sector over the years 2002 to 2012. This study covers

anomalous returns and cumulative anomalous returns using market research tools to examine the effects of pre- and post-event occurrences on stock prices. The findings reveal various findings on the impact of his M&A activities on stock performance. The findings imply that the majority of businesses had a bad experience, while certain firms exhibit cumulative positive anomalous returns and positive anomalous returns following activity.

**Adnan & Hossain (2016) “Impact of Merger & Announcement on Acquiring and Target Firm’s Stock Price: An Event Analysis Approach”** examined that the disparities in stock price reactions to merger announcements between target and acquirer businesses are empirically analysed in this research article. Before the merger is announced, the function of insider knowledge is also explored and described empirically. This study covers conventional event research approaches. In order to determine when price appreciation starts, the response of the stock market following the merger, as well as the target and cumulative average abnormal return (CAAR) of the merged business, it is observed that at windows of events contrast with Prices for both the target and the acquirer rose during the pre-announcement period, according to the findings, which may have been the consequence of a leak or positive news.

Despite the topicality of the matter and its practical significance, the possible impact of such a merger announcement on the stock prices of the concerned banking industry has not been carefully investigated. Therefore the objective of this study is to analysis the impact of merger announcement of public sector banks on shareholder’s wealth using Event methodology covering the period from 2010 to 2020.

### **Methodology: Objective**

The objective of this study is to examine how a bank's announcement of a merger affected the bank's procurement of stock market pricing. We examined at stock price changes prior to and following the announcement date to determine the effect on bank stocks.

### **Research Design**

### **Hypothesis**

**H0:** There is no significant impact of declaration of merger on Cumulative Average Abnormal Returns (CAAR) on and around the merger dates.

**H1:** There is significant impact of declaration of merger on Cumulative Average Abnormal Returns (CAAR) on and around the merger dates.

**Sample size and data collection:**

This study covers the period from 2010 to 2020. A total of 5 public sector bank mergers and acquisitions have taken place in India, including 17 banks, 5 acquirer and 12 acquired. The study sample consisted of five public sector banks listed on the Bombay Stock Exchange (BSE) during the study period and were selected by meeting the following sample selection criteria:

- Mergers and acquisitions of public sector banks in India from 2010 to 2020.
- The acquiring bank must be listed on the BSE.
- Data must be available during the study period.

Required information collected from Prowess IQ database.

**Data Analysis and Interpretation**

**Mean Abnormal Returns for Individual Banks for -15 to +15 Event Windows**

Events	Mean Abnormal Return			Effects
	Before (-15 to -1)	After(+1 to +15)	% difference	
State Bank of India	-0.37	-0.28	0.09	Increase
Punjab National Bank	0.11	-0.72	-0.83	Decrease
Union Bank of India	0.13	-0.24	-0.37	Decrease
Canara Bank	0.05	0.25	0.21	Increase
Indian Bank	0.06	2.09	2.02	Increase

**Daily AAR & CAAR for -15 to +15 Event Windows**

Day	Daily AAR	Daily CAAR	Day	Daily AAR	Daily CAAR
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-15	0.42	0.42	0	-1.4	-1.4
-14	0.61	1.03	1	-2.08	-3.48
-13	-3	-1.97	2	0.54	-2.94
-12	-1.21	-3.18	3	-0.71	-3.65
-11	-0.13	-3.31	4	0.17	-3.48
-10	0.43	-2.88	5	0.05	-3.43
-9	-1.04	-3.92	6	-0.82	-4.25
-8	0.47	-3.45	7	2.12	-2.13
-7	3.32	-0.13	8	-0.91	-3.04
-6	-0.11	-0.24	9	-0.39	-3.43
-5	0.86	0.62	10	0.54	-2.89
-4	2.25	2.87	11	2.78	-0.11
-3	-2.23	0.64	12	-0.6	-0.71
-2	-0.03	0.61	13	0.19	-0.52
-1	-0.66	-0.05	14	1.47	0.95
0	-1.4	-1.45	15	0.94	1.89

**Mean Abnormal Returns for Individual Banks for -30 to +30 Event Windows**

Events	Mean Abnormal Return			Effects
	Before (-30 to -1)	After(+1 to +30)	% difference	

State Bank of India	-0.24	-0.10	0.14	Increase
Punjab National Bank	0.07	-0.55	-0.62	Decrease
Union Bank of India	0.16	-0.90	-1.06	Decrease
Canara Bank	-0.06	-0.60	-0.54	Decrease
Indian Bank	0.58	0.47	-0.11	Decrease

**Daily AAR & CAAR for -30 to +30 Event Windows**

Day	Daily AAR	Daily CAAR	Day	Daily AAR	Daily CAAR
-30	2.78	2.78	0	-1.4	-1.4
-29	1.63	4.41	1	-2.08	-3.48
-28	-0.91	3.5	2	0.54	-2.94
-27	0.58	4.08	3	-0.71	-3.65
-26	-0.62	3.46	4	0.17	-3.48
-25	-1.88	1.58	5	0.05	-3.43
-24	0.63	2.21	6	-0.82	-4.25
-23	0.34	2.55	7	2.12	-2.13
-22	-0.35	2.2	8	-0.91	-3.04
-21	0.24	2.44	9	-0.39	-3.43
-20	1.44	3.88	10	0.54	-2.89
-19	-1.33	2.55	11	2.78	-0.11
-18	-0.37	2.18	12	-0.6	-0.71
-17	0.03	2.21	13	0.19	-0.52

-16	0.9	3.11	14	1.47	0.95
-15	0.42	3.53	15	0.94	1.89
-14	0.61	4.14	16	0.1	1.99
-13	-3	1.14	17	1.9	3.89
-12	-1.21	-0.07	18	0.02	3.91
-11	-0.13	-0.2	19	-0.58	3.33
-10	0.43	0.23	20	0.65	3.98
-9	-1.04	-0.81	21	-2.36	1.62
-8	0.47	-0.34	22	-1.69	-0.07
-7	3.32	2.98	23	-2.01	-2.08
-6	-0.11	2.87	24	-3.43	-5.51
-5	0.86	3.73	25	0.95	-4.56
-4	2.25	5.98	26	0	-4.56
-3	-2.23	3.75	27	-2.33	-6.89
-2	-0.03	3.72	28	-1.1	-7.99
-1	-0.66	3.06	29	-0.34	-8.33
0	-1.4	1.66	30	-3.11	-11.44

**t-test: Paired Two Sample for Means of CAAR**

Particulars	-15 to +15		-30 to +30	
	Before	After	Before	After
Mean	-0.9873	-2.0813	2.4996	-2.1254

Variance	4.1809	3.5851	2.5367	14.8887
P value (Two tail)	0.061506		0.000013	

### Analysis & Interpretation:

For 15 day window period:

According to P value (two Tail), 0.061506, i.e. more than 5%, that means there is no significant differences in CAAR of pre and post- merger announcement dates. It is concluded that within a period of -15 to +15, the shareholders behaviour is good after announcing the merger because they are using the purchase strategy. They favour this merger.

For 30 day window period:

According to P value (two Tail), 0.000013, i.e. less than 5%, that means there is a significant differences in CAAR of pre and post- merger announcement dates i.e. the CAAR(mean) of shares after merger announcements gets negative (-2.1314) and this may be due to more selling of shares by the shareholders after announcing the merger. It is concluded that within a period of -30 to +30, the shareholders behaviour is not good after announcing the merger because they are using the selling strategy. They boycott this merger.

Conclusion:

It has been concluded that the shareholders behaviour has been observed using CAAR for 15 and 30 days window period and it has been noticed that for 15 days period shareholders behaviour is positive and for 30 days period shareholders behaviour is negative.

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## “A STUDY ON NATIONAL HUMAN RIGHTS COMMISSION IN INDIA”

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**ABSTRACT:** National Human Rights Commission is a statutory and Non-constitutional bodies established on 12 October 1993 under the human rights ordinance; afterwards, it was amended by the Protection of Human Rights (Amendment) Act, 2006. The powers of NHRC are derived from the Protection of Human Rights Act (TPHRA). The primary aim to establish the National Human Rights Commission was the protection of citizens from all the evil things such as cruelty, torture, indignity and inhuman treatment of women, children, elders, prisoners, and all human beings in the country. The protection of Human Rights Act, 1993 originated from the UN Declaration of Human Rights Convention adopted by United Nation General Assembly in 1948. The National Human Rights Commission has been certain rights for direction to the court if there are any cases where delay to get the justice to victims and declare the verdict related to major human rights violation within the country. The major responsibility of NHRC is constantly fighting against many kinds of violation against marginalized groups, i.e. women, elders, children, religious minorities, caste minorities, racial minorities, people with disabilities, prisoners, refugees, LGBT and etc. The national legislation also attempts to protection and remedies to the victims of crime and what punishment should be given to the perpetrators who involved any offense. The human rights activists also support the national legislation through effective functions of the criminal justice system in India. Even though, the prevalence of human rights violation is ever increasing in India today. This present paper made an attempt to find out the root cause of the problem and would like to give some suggestion to appropriate prevention strategies and controlling mechanisms to prevent the human rights violation in India. In

At this juncture, this study would be collecting these secondary sources from the books, journals, government gazette, daily newspapers, appropriate websites and etc along with descriptive research method.

Key Words: Declaration, Human Rights, NHRC, United Nations, Violation.

## I.I INTRODUCTION

This Report sets out the findings of a human rights inquiry undertaken by the Equality and Human Rights Commission under its statutory powers. The inquiry was announced on 6 March 2008 and was chaired by Dame Nuala O'Loan. The lead commissioner representing the Commission was Francesea Klug, who started on the inquiry panel with fellow commissioners Sir Bert Massie and Neil Wooding. It had two main terms of reference:

- To assess progress towards the effectiveness and enjoyment of a culture of respect for human rights in Great Britain
- To consider how the current human rights framework might best be developed and used to realize a vision of a society built on fairness and respect, confident in all aspects of its diversity.

## VIOLATION OF HUMAN RIGHTS IN INDIA

The violation of human rights is a universal phenomenon. The prevalence of human rights violation is more common and ever increasing in India today. Several types of torture, abuse, and offenses against people most often violence against marginalized and vulnerable groups i.e. religious minority, caste minority, women, children, elderly, people with physical and mental impairments etc. The recent statistics reveal that much more custodial death in police station during the inquiry of this accused, National Human Rights Commission constantly fighting against such type of violation and also suggest the recommendation to the criminal justice system to speedy and impartial justice to the victims and rights of prisoners (Bajwa, G.S, 1995). According to the report of the Asian Centre for Human Rights "Torture in India 2011", The National Human Rights Commission recorded a total of 14,231 deaths in custody

in India between 2001 and 2010, which includes about 1,504 deaths in police custody and about 12,727 deaths in judicial custody. This report observes that these are only the cases reported to the NHRC, and do not include all the cases of custodial deaths. The report attributes

the deaths in custody to torture, denial of medical facilities and inhuman prison conditions. Once a person was taken into custody, the responsibility for his/her life, health and safety rests with the authorities in whose custody he or she is, be it the police or the jail authorities (Sugas et al, 2013, pp.121-124)

## II. Composition of National Human Rights Commission in India

### THE NHRC COMPRISES OF:

- The Chairperson of NHRC should be a retired Chief Justice of India
- One member who has been, a Justice of the Supreme Court of India
- Another one member who has been the Chief Justice of a High Court
- 

Two members have been appointed from amongst persons having knowledge of, or practical experience in, areas relating to human rights.

### Appointment and Removal of the NHRC Members

Section 2, 3 and 4 of The Protection of Human Rights Act laid down the rules for appointment to the National Human Rights Commission. The Chairman and members of the National Human Rights Commission are appointed by the President of India, on the recommendation of the committee comprising of:

- The Prime Minister of India (Chairperson)
- The Home Minister of India
- The Chairman of the Opposition in the Lok Sabha

- The Chairman of the Opposition in the Rajya Sabha
- The Speaker of the Lok Sabha
- The Deputy Chairman of the Rajya Sabha

The chairperson and other members hold office for the term of five years or until they reached the age of 70 years either is earlier, after their term the Chair-person and member are not eligible for further employment under the central or state government.

Public perception:

Opinion polling commissioned for the Inquiry showed widespread positive support for the concept of human rights and for a law to protect people, with 84 per cent agreeing that it is “important to have a law that protects human rights in Britain”

Set against this, however, 42 per cent of people agreed with the proposition that the “only people to benefit from human rights in the UK are criminals and

terrorists”, while 40 per cent disagreed. Certain sections of the media have focussed on a number of high-profile situations, some of which have, in fact, no relationship to the Human Rights Act, and this was cited in the evidence as being a contributory factor in the negative perception that some people have of the Human Rights Act.

2. The Inquiry received evidence that such negative perceptions of human rights and the Human Rights Act could act in some cases as a barrier to the effective implementation of the Act, and to the promotion of human rights and a human rights culture:

“If you read the tabloid press, the impression of the Human Rights Act is overwhelmingly negative ... and those are the kinds of places that people take their views of the Human Rights Act from.”

III. Policing, probation and criminal justices

Witnesses suggested that the Human Rights Act has had a significant impact on the Police, who have to fight crime and maintain public order, and they rely on the community to help them. The act protects officers in the line of duty as well as vulnerable individuals. The assistant chief constable of the Police service of northern Ireland said that officers see the human rights act as a “sword and a shield”

“The Human Rights Act have vastly improved the lives of the citizens in this country. It has given us a structure of rights and abilities to challenge authority that have improved people’s situations. It has made sure that we are now as institutions actively thinking about what we do to people much more than we did before and that is really, really positive.”

#### IV. MAJOR HUMAN RIGHTS ISSUES IN INDIA

We cannot deny the massive the enormity of human right violations in our country. The world’s largest democracy is afflicted by predominant violations. That as been summarized below that some major issues or violations which are identified by National Human Rights Commission.

- Custodial Torture of persons in Police Stations and Prisons
- Slaves and bonded laborers
- Unlawful Killings
- Honour Killings
- Abortion of Pre-natal Sex determination
- Unlawful Arrest and Incarceration
- Excessive Powers of the Armed Forces and the Police
- Sexual Violence against Women and Children
- Conflict encouraged Internal Dislocation
- Child Labour
- Manual Scavenging
- Common Violence and discrimination against Women and Children
- Violence against LGBT
- 

Problems faced by Scheduled Castes and Scheduled Tribes, Religious Minorities, Persons with Disabilities and etc. (Roshini Dahiya Duhan, 2015).

## V. Essential functions and responsibilities of the National Human Rights Commission

The essential functions and responsibilities of NHRC summarized below..

Proactively or reactively investigate into encroachments of human rights or neglect in the prevention of such violation by a public servant.

Visiting in prison or any other institution under the control of the State Government, where persons are apprehended or detained for commitments of treatment, reformation or protection and rehabilitation for the investigate the living conditions of the prisoners and make some recommendations.

Appraisal of the protections delivered by or under the Constitution or any law for the time being in force for the safeguard of protection and promotion of human rights and recommend actions for their effective implementation.

Analyse the factors, including acts of terrorism that constrain the enjoyment of human rights and recommend suitable remedial actions.

Establish and encourage the research activities in the area of human rights at colleges, Universities and other professional areas.

Evaluation of the protection and safety delivered by or under any representation for the safeguard of human rights;

Evaluation and periodical review of the factors or problems that restrain the enjoyment of human rights in the country. (Singh Seghal B.P, 2008)

Encourage the human rights education among the different segments of society and create the awareness of the defence mechanisms available for the protection of these

rights through publications, the media, conferences, workshops, seminars and other activities such as means.

- Provision the efforts of NGOs and other institutions working in the area of human rights.
- Direction to the government that any opinion, approval, suggestion or report on any difficulty regarding the promotion and protection of human rights;
- Prepare the periodical reports on the present condition with respect to human rights in general, and on more specific problems within the country;
- Advise the government about circumstances of violation of human rights and recommend on methods in which such circumstances can be prevented;
- Collaborate with the United Nations and other related organisations in the UN system, the regional and other national institutions in other countries that are experienced in the areas of the protection and promotion of human rights;
- Contribution and assisting in the preparation and conducting programmes for the teaching and research concerning human rights education and awareness and take part in their implementation in schools, colleges, universities and other professional areas;
- Announce the awareness about human rights and efforts to fighting all forms of discrimination by increasing public awareness, especially through proper information and awaken the human rights education and by making use of all press organisation and other functions as it may consider being encouraging to the promotion and protection of human rights.
- By leave of the court, to adjudicate in court proceeding relating to human rights issues.
- Anyone who can easily approach the NHRC for lodged a complaints related to human rights violation through, complaint letter, application, mobile phone and the email also. All the booklets, periodical reports, newsletters and speeches of the NHRC are also available on their website.. (Shreshtha Garg and Anand Kr. Dubey, 2015)

## VI. ROLE OF NHRC IN THE PROTECTION OF HUMAN RIGHTS

Meanwhile, it's appropriate development of the National Human Rights Commission has extensively dealt with issues relating to the application of human rights. NHRC has established its upright for freedom and morality. There is constantly increasing several numbers of complaints addressed to the Commission seeking redressal of complaints. The National Human Rights Commission has followed its obligation and significances with resolve and significant success of the protection and promotion of human rights of every individual. Some of the renowned intermediations of NHRC include campaigns against

Discrimination of all marginalized and vulnerable groups include LGBT and HIV affected persons. It also has been asked all State Governments to report the cases of custodial deaths in the police station, prisons and other institutions for apprehended the inmates or rapes within 24 hours of occurrence failing which it would be assumed that there was an attempt to destroy the incident (Showkat Ahmad Bhat and Mudassir Nazir, 2017).

The Powers and Functions of Indian Human Rights Commissions

The 1993 Act

The powers and functions of Indian commissions are set out in Sections 12-16 and 29 of the 1993 Act. Sections 16 and 29 of the Act provide the Commissions with the power of a civil court trying a suit under the Code of Civil Procedure 1908 whilst inquiring into complaints under the 1993 Act.

Comment and Critique

The powers of the Commission to obtain assistance from organs of State is unnecessarily restricted. Although the Commissions have the powers of a civil court, this is only whilst inquiring into complaints received under section 12(a). As stated in the United Nations

Principles relating to the status of national institutions (the Paris

Principles-

attached) a Human Rights Commission is to be vested with the competence to protect and promote human rights. The Paris Principles further state that a commission shall, within the framework of its operation, hear any person and obtain any information and any documents necessary for assessing situations falling within its competence. For example, the Act establishing the South African Commission requires all state organs to afford the commissions with such assistance as may be reasonably required for the effective exercise of its power and performance of its duties and functions.

The Indian commissions have been given numerous functions beyond that of inquiring into complaints. It is the submission of CHRI that the Commissions be provided with greater powers with respect to these functions (such as reviewing the safeguards provided for under the Constitution or the study of international instruments and their implementation) by means of an additional provision within the 1993 Act stating that all government organs shall provide the commissions with such assistance as may be reasonably required for the effective exercising of their power and performance of their duties and functions. Such an amendment

of the Act would not only increase the competence of the Commissions but it would also develop a greater culture of human rights within state organs because civil servants would be required to account and provide assistance to the human rights commissions. For example, the percentile of women within the Indian civil service, particularly in the high ranks, has not improved greatly since Independence. This seems to indicate that the organs of the Indian State are far from aware of their international and constitutional obligations with respect to equality and equal opportunity. These international declarations support the view that national institutions must be provided with as wide a mandate as possible if they are to effectively promote and protect human rights.

The effect of section 19 of the 1993 Act is to remove the armed forces from the investigative purview of the NHRC. This not only narrows the mandate of the NHRC but it also implies that the armed forces are somehow exempted from acting in accordance with the fundamental human rights principles set out in Part III of the Indian Constitution. Part III binds the State of India, (the Government and Parliament of India and the Legislature of each of the States and all local or other authorities within the territory of India or under the control of the Government of India) to uphold the fundamental constitutional rights. To exclude the armed forces from the purview of the 1993 Act is to separate them from the rest of the State. The present situation therefore acts as a tacit admission that Indian citizens must pay for the cost of some higher self-defined security with their constitutional rights.

On the other hand, if the NHRC were authorised to investigate alleged violations by the armed forces, the armed forces would be protected against any unfounded complaints or spurious allegations, which would in turn help to preserve morale. The existing military procedures, such

as military trials and court martials are no justification for exempting the armed forces from the investigative powers of the NHRC. It is important to understand that military procedures will not be replaced by NHRC investigations. All findings of the NHRC based on its investigations are recommendations only. Just as the NHRC now recommends that Courts initiate prosecution in a particular case, the NHRC should have the power to investigate complaints made against members of the armed forces and to recommend that the armed forces initiate prosecution in line with the usual procedures. Certainly the provision of powers to the NHRC to investigate alleged violations of human rights by members of the armed forces subjects the armed forces to greater accountability, transparency and public confidence. However, it would not subject them to any new obligations or responsibilities than those which already exist under the Indian Constitution and international law. Nor would it disrupt the chain of command as the investigative staff could work in conjunction with those officers within the forces already charged with internal investigations of a similar nature to ensure that a thorough, transparent and independent investigation is undertaken.

Nor is it arguable that opening the armed forces to the jurisdiction of the NHRC would be detrimental to morale.

The unsuccessful suppression of such human rights violations or the investigation of such crimes by secret military procedures only increases public hostility towards the military by the public and thereby reduces their operational capabilities because of a lack of public support and co-operation. Moreover, if the violators are allowed to go unpunished, it only encourages them to commit greater atrocities against citizens with impunity which further ruins the image of the military as a whole. As an alternative submission, should it not be possible to include the armed forces within the investigative purview of the NHRC, then the definition of the armed forces as prescribed by the 1993 Act should be more reasonably defined. At present the definition of the Armed Forces unusually includes not only the naval, military and air forces but any other armed forces of the Union. This means that sections of the police force, such as the Security Border Forces and other para-military units, are also excluded from the investigative powers of the NHRC, although they are headed by a different ministry and are subject to different policy decisions and responsibilities. These armed police forces deal directly with public security and the safeguarding of fundamental rights in sensitive areas

where human rights violations are more often alleged. They must therefore be seen by both the Indian citizenry and international spectators as accountable and transparent actors. In conclusion then, CHRI first submits that the armed forces as presently defined in the 1993 Act should fall within the investigative purview of the NHRC. Alternatively, if the first submission is not politically expedient, the definition of armed forces should be amended to include only the military, naval and air forces.

#### The NHRC's Investigative Powers and the Armed Forces-Section 19

Section 19 of the Act states that when dealing with complaints of human rights violations by members of the armed forces, the Commission may, either on its own motion or on receipt of a petition, seek a report from the Central Government and, after receipt of the report, it may either not proceed with the complaint or make its recommendations to the government. The Government is then to inform the Commission of the action taken with respect to the recommendations made to it and the Commission is to publish its report together with the government action taken.

#### Comment and Critique

As stated in the United Nations Paris Principles, a Human Rights Commission is to be vested with the competence to protect and promote human rights and is to be given as broad a mandate as possible. Similarly, the 53rd Session of the UN Commission on Human Rights has encouraged UN member states to strengthen national institutions for the protection of human

rights, while the UN General Assembly encourages states to prevent and combat all violations of human rights.<sup>7</sup> All of Principles relating to the status of national institutions annexed to General Assembly resolution 48/134 of 20 December 1993. UNCHR Resolution 1997/40 on National Institutions for the Promotion and Protection of Human Rights. General Assembly Resolution A/res./ (48)134

#### VII. The Appointment Process-Sections 4, 5, 6, 22, 23 and 24 of the 1993 Act

The Protection of Human Rights Act 1993 provides that the NHRC consists of 5 full-time members and 3 ex officio members. At present there are only 3 full-time members, including the Chairperson in addition to the ex officio members. The Chairperson and the four full-time members are appointed by the

President of India by warrant under his or her hand and seal on the recommendation of a Committee consisting of:

- the Prime Minister (as Chairperson)
- Speaker of the House of the People
- Minister in Charge of the Ministry of Home Affairs
- Leader of the Opposition in the House of the People
- Leader of the Opposition in the Council of States
- Deputy Chairman of the Council of States.

The Chairperson is to have been a Chief Justice of the Supreme Court and there must also be a member who is, or has been, a judge of the Supreme Court, and one who has been a Chief Justice of a High Court. Only two members need be from among persons having knowledge of, or practical experience in matters relating to human rights. No sitting judge of the Supreme Court or of a High Court is to be appointed except after consultation with the Chief Justice of India (section 4).

Section 6 provides that on being appointed, the Chairperson and members shall hold office for a term of 5 years or until s/he attains the age of 70 years, whichever is earlier. A member is eligible for re-appointment for another term of five years. The Chairperson and members are not accountable to anyone in regard to the discharge of their duties. The Chairperson/member can be removed from office by order of the President on the ground of proved misbehaviour or incapacity after the Supreme Court, on reference being made to it by the President, has, on inquiry held in accordance with the procedure prescribed in that behalf by the Supreme Court, reported that the Chairperson/member ought to be on any such Section 22 of the 1993 Act describes the composition of the Committee provided to appoint members of the state commissions. Section 21 describes the criteria of state commission members. ground removed (section 5(1)). The President can also remove the Chairperson/member from office if s/he on the grounds set out in section 5(2). Onceasing to

hold office, the Chairperson/members are ineligible for further employment under the Government of India or of any State (section 6(3)).

The salary and allowances and other terms and conditions of service of the Chairperson/members cannot be varied to their disadvantage following appointment. The Chairpersons of the National Commission for Minorities, the National Commission for the Scheduled Castes and Scheduled Tribes and the National Commission for Women are deemed ex-officio members of the NHRC.

These ex-officio members may discharge the functions and powers specified in section 12 of the Act except that power which allows the official member to inquire suo motu or on a petition presented to the commission by a victim, or any person on his/her behalf, into a complaint of a violation of human rights or abetment thereof or negligence in the prevention of such violation, by a public servant.

## CONCLUSION

National Human Rights Commission has been made significant contributions to essential functions and major responsibilities to protect the human rights at Nationwide. It has received the complaints and takes the necessary action towards the complaints related to human rights violation at the national level. It's would be an attempt to bringing a human rights approach and major responsibilities to legislative processes, innovative policy-making and programs implemented within the country level as well as the state. Its contribute the major role in protection and promotion of human rights in India, as well as concerned state, have disappeared freestanding the anticipated role of investigating alleged violations, examining the public inquiries, exercising evaluate the jurisdiction, if there is any necessity for providing direction and assistance to governments, creating awareness about human rights education among the lawmakers, academicians, stakeholders, and students as well as the public, concerning that promoting the interaction between the public and other stakeholders, improved the relationship between states and international human rights organizations and publishing annual reports, pieces of literature, magazines and periodical reviews. Moreover, it will conduct the human rights-related seminars, workshops, and conferences and etc. It has been appropriate towards the reinforcement of the Human Rights Jurisprudence in our country. NHRC has been recognized as the framework towards rights-based approach at a national, as well as international level. In this backdrop, this paper will be concluded

that NHRC is not only functioning in proper manner without appropriate support from the government concerns stakeholders and all other organizations and the public. It could be only possible to effective co-operation with NGOs, Stakeholders, legal experts, academicians and public also.

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## A STUDY ON AWARENESS OF GREEN MARKETING IN AMINJIKKARAI TOWN

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### **Abstract**

An innovative idea and action to safeguard the environment. Green marketing is a trend that has become increasingly significant in the contemporary market. This idea has made it possible to remarket and package existing products that already follow these rules. Additionally, the growth of green marketing has given businesses the chance to co brands their products under several lines, praising some for being environmentally friendly while disregarding others. These marketing strategies will be clarified as a direct outcome of consumer market movement. Businesses now target consumers who are worried about the environment more frequently as a result of this. These same customers, motivated by their concern, are also interested in incorporating environmental concerns into their purchasing decisions by incorporating them into the method and elements of the marketing plan for any necessary goods.

**Key Words:** Green Marketing, Eco-Friendly Products, Ecological Marketing, Marketing Environment.

### **Introduction**

Green marketing entails creating and presenting goods and services that meet customers' demands for accessibility, affordability, efficiency, and quality while having minimal negative effects on the environment.

### **Meaning**

Green marketing is the practice of promoting goods and/or services based on their favorable effects on the environment. It's possible for such a good or service to be ecologically friendly in its design, production, and packaging. Green marketing makes the apparent assumption that prospective customers would consider a product or service's "greenness" to be an advantage and base their purchase decision accordingly. Consumers will be prepared to pay more for green items than they would for a less-green similar alternative product, which is a not-so-obvious assumption of green marketing that, in my opinion, has not been fully verified.

### **Definition**

Green marketing, according to the American Marketing Association, is the promotion of goods that are thought to be safe for the environment. As a result, green marketing encompasses a wide variety of actions, such as product modification, changes to the manufacturing process, packaging improvements, and advertising adjustments. The prevalence of several social, environmental, and retail connotations related to this phrase is an illustration of how difficult it is to define green marketing since multiple meanings overlap and conflict with one another. Environmental marketing and ecological marketing are two other phrases that are utilized.

### **Developments in Green Marketing**

Over time, green marketing has undergone changes. The late 1980s and early 1990s saw the rise of the term "green marketing." There are three stages in the development of green marketing.

**The first stage** was known as "Ecological" green marketing, and all marketing operations during this time were focused on addressing environmental issues and offering solutions. **The second phase** was "Environmental" green marketing, when the emphasis turned to clean technology and the creation of novel new goods to address difficulties with waste and pollution. **The third stage** of green marketing was "Sustainable." In the late 2000s and early 2022, it gained popularity.

### **Green Products in Chennai**

One of the most well-known businesses on the market, Go Green Products was founded in 2022. We are a sole proprietorship-based business. Our company's headquarters are in Chennai, Tamil Nadu (India). We are the top producer and distributor in this industry, providing a variety of

fibre products such fibre mats, fruit fibre, textile fibre yarn, fibre rope, and more. We promise to deliver these items within the allotted period.

### **Review Literature**

Serban, C. (2015) In their research article highlighted the value of social organizations in raising consumers' ecological awareness by focusing on issues like the responsibility of consumers for environmental protection, the wise use of natural resources, and the requirement to involve consumers in social activities with an ecological focus. The study report sought to give social organizations a general understanding of how the environment issue was viewed in society as well as a method of evaluating the ecological operations carried out thus far on the Romanian populace. The findings revealed a significant correlation between consumer readiness to adopt eco-friendly behaviours and social groups that started efforts to address this issue.

The 1990s saw a rise in environmental awareness and accompanying issues for businesses. In his piece on green marketing titled Sustainable Green Marketing, Dutta, B. (2009) According to The New Imperative in Marketing Mastermind, generating high-quality goods that may satisfy consumer requirements and wants requires putting an emphasis on the quality, performance, affordability, and convenience in an environmentally responsible manner.

### **Objectives of the study**

1. To find out whether consumers are aware of green marketing and whether they genuinely believe in it.
2. To verify whether or not green marketing actually aids in environmental preservation.

### **Research Methodology**

The study is supported by material from both primary and secondary sources. By use of a standardized questionnaire, the 75 respondents in Aminjikkarai Town provided the primary data. In the study, an analysis of the use of green marketing products is attempted. Secondary information was gathered from other articles and websites. Utilizing green marketing strategies, appropriate statistical methods have also been employed to measure environmental safety.

### **Scope of the Study**

- a) Future markets are expected to be closely related to the creation, dissemination, and use of environmentally friendly technology, often known as environmental technologies. Environmental technologies come in all shapes and sizes nowadays.
- b) Incorporate environmental awareness into the business culture in addition to creating environmentally friendly products and choosing environmentally friendly markets.
- c) Reasonably cheap costs and environmentally friendly products that do the least amount of harm are necessary for the development of items that can appeal to consumers. Environmental awareness and the manufacturing of environmentally friendly products are needed in order to represent a high standard of quality.

### Features of the Study

1. Involvement in society many businesses are beginning to understand the need of acting sustainably. They think that in order to fulfill their social obligation, they must achieve both their organization's financial and environmental goals.
2. Competitive Advantage In orders to keep their competitive edge, many businesses engage in green marketing. Small business initiatives have inspired several other businesses to follow suit.
3. Cost Savings from the reduction of toxic waste it is feasible to utilise garbage produced by one firm as a cost-effective raw material in another.

### Results and Discussion

Table-1

#### Sources of Awareness of green Products

S.No	Sources	Level of Respondents	Percentage (%)	Rank
i	Magazines	11	15	3
ii	Television	26	36	1
iii	Online Ads.	16	21	2
iv	News papers	10	13	4
v	Friends/Relatives	05	07	5

<b>vi</b>	Super Market Staffs	03	05	6
<b>vii</b>	Seminars/ Workshops	02	03	7
<b>Total</b>		<b>75</b>	<b>100</b>	

Sources: Primary Data

### Interpretations

The awareness of green Products is seen in the above table, the majority of respondents 36 % do so Televisions and lower level 03% respondents' awareness of Seminars/ Workshops.

Table-2

### Frequency of Purchase of Green Products

<b>S.No</b>	<b>Frequency</b>	<b>Level of Respondents</b>	<b>Percentage (%)</b>	<b>Rank</b>
<b>i</b>	Once a Week	31	41	1
<b>ii</b>	Once a fortnight	23	31	2
<b>iii</b>	Once a month	06	08	4
<b>iv</b>	Once a year	04	05	5
<b>v</b>	Regularly when needed	11	15	3
<b>Total</b>		<b>75</b>	<b>100</b>	

Sources: Primary Data

### Interpretations

The reason for often purchasing green items is seen in the above table, the majority of respondents 41% do so once per week and 05% do so once per year.

### Suggestions of the study

The following ideas have been put up to raise awareness of green products and their efficacy:

1. The cost of green products should reflect their quality.
2. There shouldn't be a significant price difference between ordinary and environmentally friendly products.
3. The quality of green products should be higher than that of conventional goods.
4. The consumer must take the initiative to educate people about the advantages of eating organic food, reduce the use of finite natural resources, and recycle recyclable garbage.

### **Conclusion**

The moment is ripe to choose "Green products" internationally right now. If all countries adopt tight policies, which are necessary to protect the globe from pollution by using green products, the business world would undergo a significant transformation. From a financial perspective, a good marketer includes the customer in the product in addition to persuading them to buy it. Green products have an environmental and social component, therefore they shouldn't be seen as just another marketing strategy. Instead, they need to be pushed with much more intensity. It is crucial that green products become the rule rather than the exception or merely a fad given the grave threat posed by global warming.

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## INNOVATION – A REQUISITE FOR ENTREPRENEURSHIP

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### ABSTRACT

Webster defines an entrepreneur as “the one, who organizes, manages and assumes risks of a business or an enterprise”. Innovation and creativity are important characteristics for an entrepreneur. Innovation involves the use of a new idea or method. In entrepreneurship, innovation starts right from the development of the business plan and goes on till obtaining feedback about the business’s products or services or even later. The Government of India has launched various schemes and programmes such as Startup India initiative, Aatmanirbhar Bharat mission and the ‘Make in India’ programme. Such initiatives help to encourage entrepreneurs to undertake new ventures. Innovation helps to create new solutions to problems and allows the entrepreneur to make continuous improvements in all aspects of the business. Best use of existing products and services can be made by ensuing innovative practices. Thus, entrepreneurship can be a big success if innovation is undertaken in the right way.

Keywords: Innovation, Entrepreneurship, Entrepreneur

### INTRODUCTION

The word, entrepreneur is derived from the French word “entreprendre,” which means “to undertake.” Webster defines an entrepreneur as “the one, who organizes, manages and assumes risks of a business or an enterprise”. An entrepreneur is a person who creates a new business, bearing most of the risks and enjoying most of the rewards. Entrepreneurship is defined as the process of setting up a business. According to A.H.Cole “Entrepreneurship is the purposeful activity of an individual

or a group of associated individuals, undertaken to initiate, maintain or aggrandize profit by production or distribution of economic goods and services.”

According to a study by Harvard Business School, the basic characteristics or requisites for an entrepreneur include curiosity, innovation, adaptability, decisiveness, team building, risk tolerance, persistence, and long-term focus. Creative thinking and innovation, risk-taking culture, playful thinking, etc., are some of the qualities that make a great entrepreneur as per a study conducted by the British Broadcasting Corporation (BBC).

Hence, it can be understood that innovation and creativity are the utmost important qualities required of an entrepreneur. As stated by Joseph Schumpeter, a famous political economist, “Innovation is the practical implementation of ideas that result in the introduction of new goods or services or improvement in offering goods or services.” Innovation involves the use of a new idea or method. In entrepreneurship, innovation starts right from the development of the business plan and goes on till obtaining feedback about the business’s products or services or even later.

## ENTREPRENEURSHIP IN INDIA

The total number of recognised startups in India rose from 471 in 2016 to 72,993 as on 30th June 2022, helped by proactive government interventions. Startups are very essential for the smooth functioning of an economy. Hence, the Government of India has launched the Startup India initiative on 16th January 2016 to support startups, to develop entrepreneurship and to increase employment opportunities, resulting in economic growth and development. The Indian government has also launched the Aatmanirbhar Bharat mission and the ‘Make in India’ programme with the aim of transforming India into a global manufacturing hub.

The Government of India has also set up the following initiatives:

### 1. ASPIRE – A Scheme for Promotion of Innovation, Rural Industries and Entrepreneurship.

This scheme was announced to set up a network of technology centres and incubation centres all over India with the objective of accelerating entrepreneurship and encouraging innovations for unmet social needs in the agro-business industry. This scheme is highly beneficial as a large portion of the Indian population is still dependent on agriculture for their livelihood.

### 2. Pradhan Mantri Mudra Yojana

Micro Units Development and Refinance Agency Ltd. (MUDRA) is a non-banking financial company which supports the development of micro enterprise sector in India. MUDRA provides refinance support to banks and/or microfinance institutions for lending loans to micro units who have loan requirement up to ₹10,00,000.

### 3. Multiplier Grants Scheme (MGS)

This scheme was launched with the objective of encouraging industries to collaborate with premier academic and government R&D (Research & Development) institutions for the development of packages and products. Under this scheme, if an industry supports the R&D of products that are capable of commercialization, the government would provide funding up to twice the amount provided by that industry.

### 4. Credit Guarantee Fund Trust for Micro and Small Enterprises (CGTMSE)

The Ministry of MSME (Ministry of Micro, Small and Medium Enterprises), the Government of India, and the Small Industries Development Bank of India (“SIDBI”), have established the Credit Guarantee Fund Trust for Micro and Small Enterprises (CGTMSE). This scheme strengthens the credit delivery system and facilitates flow of credit in the MSE sector. It provides loans at highly subsidized rates and with zero collateral to startups, small-scale industries, and micro-level businesses.

### 5. Single Point Registration Scheme (SPRS)

SPRS is a developmental scheme managed by the National Small Industries Corporation (NSIC) for supporting MSE (Micro and Small Enterprises). The objective behind this scheme is to increase the number of purchases from the small-scale sector. By opting for this scheme, NSIC registers the eligible MSEs for participation in government purchases without any Earnest Money Deposit (EMD), which is like a security deposit.

### 6. High Risk and High Reward Research

This scheme aims to support and invite new ideas and proposals which are new and risky, but if successful, can be highly rewarding for the field of Science. Such proposals may include theoretical and experimental advances, challenges to existing hypotheses, scientific breakthroughs or

formulation of a new hypothesis that brings about new technologies. There is no prescribed budget limitation for these projects and the research grant shall cover consumables, contingencies, equipment and travelling costs apart from the overhead grants.

#### 7. Zero Defect Zero Effect (ZED) scheme

This scheme strives to motivate manufacturers to create better products, have zero defects and high quality. It is a scheme that provides an opportunity to MSMEs to follow world-class manufacturing processes, use new technology and consistently improve their products. The scheme provides tools, technology as well as financial assistance to startups and MSMEs for ensuring zero defects in their goods.

With the help of these incentives and various other schemes offered by the government, and the support provided by banks and other financial institutions, entrepreneurs are enabled to start and run their business efficiently in a hassle-free way.

### INNOVATION IN VARIOUS STAGES OF BUSINESS DEVELOPMENT

According to Forbes Advisor, setting up a new business involves the following steps:

1. Determining the business concept
2. Researching the competitors and market
3. Creating a business plan
4. Choosing the type of business organisation
5. Registering the business and getting licenses
6. Getting finances in order
7. Funding the business
8. Applying for business insurance
9. Getting the right business tools
10. Marketing the business
11. Scaling the business

The importance of innovation in each of the steps involved in setting up a new business is as follows:

1. Determining the business concept

The first and foremost step in starting a new business is developing a business plan or concept. It refers to the plan about what business is to be undertaken by the entrepreneur. This stage involves heavy mind work and planning because the success or failure of the business largely depends on the business concept. The concept generally depends on two types of factors – internal and external. Internal factors include the passion and interests of the entrepreneur, his skills and expertise, his amount of investment, etc. External factors include availability of government incentives and subsidies, economic conditions of the country, etc. Innovation is very important at this stage. The entrepreneur must plan his business in a different way from that of competitors. In that case, he can get the attention of potential customers. If the business is the same as that which is done by existing competitors, the customers may not be attracted by the new business and continue to purchase products or avail services of the existing businesses only. Hence, the entrepreneur needs to practise innovation in deciding about the type of business, the process which he is about to undertake and in making plans and decisions regarding the business.

## 2. Researching the competitors and market

The entrepreneur has to conduct thorough research and a detailed study of the competitors and the market conditions. Entrepreneurs, before starting the business, must obtain data about the potential customers, their needs and requirements, their opinions, etc. This can be done with the help of questionnaires, interviews, and opinion surveys and is called primary research. Secondary research involves collection of market data from existing records such as Census data, previous studies, etc. An analysis of the competitors' strategies and business tactics also needs to be done. SWOT/ SWOC Analysis (analysis of Strengths, Weaknesses, Opportunities and Threats/ Challenges) of the business may also be done by the entrepreneur to study the market conditions and environment. Innovation is necessary in analysing and researching the competitors and market conditions, as the proper running of a business enterprise depends on these. By adopting proper and efficient innovative techniques, the entrepreneur may outrun competition and attain competitive advantage in the market.

## 3. Creating a business plan

A business plan serves as a roadmap for establishing the new business. It includes setting the goals and objectives of the company and the methods to achieve those goals, the type of organisational structure, mission statement of the organisation, how the business will operate, creating a marketing

plan and financial budget, etc. This stage is important as it creates a rough outline of how the organisation will operate. A business organisation should be innovative in setting the goals and plans as it brings about competitive advantage in the market. Only if the organisation adopts the latest technology and undertakes various innovative practices, it would be able to survive in this modern world.

#### 4. Choosing the type of business organisation

The next step involves choosing the business organisation. The entrepreneur has to decide the type of business organisation that would be formed by him. He has a variety of options at his disposal. He may choose to form his business under sole proprietorship, partnership, limited liability partnership, corporation or any other format. The entrepreneur has to put in a lot of innovative effort in deciding the type of organisation as it decides various aspects such as legal systems to be followed, liability of the members etc.

#### 5. Registering the business and getting licenses

The business organisation has to be then registered with the respective authority under the respective laws. Here innovation takes place in the form of deciding the name of the business. The business name has to be easily understood and remembered by the public, but at the same time, the entrepreneur also has to take care that the proposed name of his organisation does not have any similarity with the name of existing organisations. The entrepreneur also has to get the necessary licences for operating the business in that particular location.

#### 6. Getting finances in order

The entrepreneur has to make necessary plans about getting finances or funds and has to decide the amount of funds required for each activity. Heavy expenditure will have to be incurred while starting the business as the entrepreneur has to spend on acquiring land and buildings, acquiring materials for running the business, hiring employees to work in his organisation, giving advertisements in various media, etc. All these costs have to be taken into consideration by the entrepreneur. Innovation in technology and other aspects involves extra costs to the business, but is advantageous to the organisation in the long run. Therefore, the entrepreneur has to be innovative even while deciding about the organisation's finances.

#### 7. Funding the business

The entrepreneur has to then obtain the necessary funds required to run the business. He can get the funds from own sources such as his own personal savings or from his family or friends. He can also obtain funds from external sources such as banks and financial institutions and many other sources. The entrepreneur has to be very careful in this stage. He has to consider various aspects such as terms of repayment, rates of interest, etc. The entrepreneur can be innovative at this stage too. Even though traditional sources of financing such as banks and financial institutions can be used for funding the business, the entrepreneur can also get funding from modern sources of finance such as venture capital, angel investors, crowdfunding, buyouts, etc.

#### 8. Applying for Business Insurance

The entrepreneur needs to obtain insurance for his business. He has to apply for various categories of insurance such as fire insurance, burglary insurance, etc. keeping in view the type of business and the risks involved in the business. The entrepreneur has to take proper care and see that all aspects of his business are covered by insurance. Even in insurance, modern technologies such as machine learning, artificial intelligence and social media data are being used. Innovative methods such as digital insurance calculators can also be used by entrepreneurs to ascertain the most suitable insurance policy for their business, keeping in mind various business-related attributes.

#### 9. Getting the right business tools

For efficient functioning of the business, various computerised or automated tools need to be used by the entrepreneur. Accounting software such as Tally, QuickBooks, Odoo, etc. can be used by the entrepreneur. Artificial Intelligence (AI) and machine learning are gaining widespread usage in businesses all over the world and can be used for various purposes such as improving customer service, analysing customer satisfaction, optimising supply chain operations, etc. Similarly, innovative tools such as customer relationship management software, project management software, digital processors, etc. can be used by entrepreneurs as they speed up the process of accounting and other business activities and thus promote efficiency.

#### 10. Marketing the business

Heavy efforts and expenditures are involved in setting up the business. However, the success of the business depends on the customers. The entrepreneur needs to attract prospective customers using

various promotion strategies such as advertising, sales promotion, publicity, etc. As the usage of the internet has become widespread in today's world, many enterprises, even small organisations, have started launching websites and online shopping sites for selling their products or services to customers. Hence, the entrepreneur must adopt innovative methods in creating an attractive and efficient website, undertaking social media advertising to attract youngsters, getting listed in online directories and other measures to overcome competition and be successful in this digital world.

### 11. Scaling the business

After the business is successfully set up by the entrepreneur, he has to keep a record of his customer base. This can be done with the help of various software. Innovation is a continuous process. So, the entrepreneur should not cease his efforts after achieving his goal. He should continuously upgrade everything according to the latest developments in technology and other fields, taking into account his finances, risk involved, etc. Only then, he will be able to retain existing customers and attract new customers and thus run his business competently.

Hence, innovation is a necessity in each and every stage of developing a new business. An entrepreneur has to perform constant upgradation of almost all aspects of his business keeping in view the type of business, nature of customers, needs of customers, finance available, competition from other businesses, risk involved and other related factors.

‘Creativity is thinking up new things. Innovation is doing new things.’ said Theodore Levitt, a renowned economist. Both creativity and innovation are important for an entrepreneur to be successful.

### CONCLUSION

‘There is a way to do it better. Find it’ said Thomas Alva Edison, the great inventor. An entrepreneur who has an innovative approach finds it easy to find a unique selling proposition for his business. Innovation helps to create new solutions to problems and allows the entrepreneur to make continuous improvements in all aspects of the business. Internet, social media and other recent technologies can be used in all stages of business to perform activities in an automated way. Best use of existing

products and services can also be made by ensuing innovative practices. Thus, entrepreneurship can be a big success if innovation is undertaken in the right way.

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## AN SVM APPROACH FOR ASD PREDICTION IN TODDLERS

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**Abstract**—Autism spectrum disorder (ASD) is a developmental disability usually described as a combination of multiple causes. ASD is defined as a spectrum of symptoms that have high influential impact on the behavioural ,learning and cognitive skills of the individual.People with ASD are identified to have problems in communication and interaction, show restricted or repetitive behaviors. They also lack in the ability to understand and learn things and express it normally.Early detection of ASD will help a person to lead a better life as the people who are involved in his/her life can help betterthe learning and behavioral ability from an early stage.

**Index Terms**—ASD,prediction,features,Toddler,MachineLearning

### I. INTRODUCTION

Autism Spectrum Disorder(ASD) is a neurological and formative clutter that influences how individuals connect with others, communicate, learn, and carry on. In spite of the fact that ASD can be identified and traced out at any age, it is depicted as a “developmental disorder” since indications by and large show up within the first years of life.Hence an early detection of ASD can dramatically help to take correctivemeasures to help the person lead a better life.

Machine learning is a sub field of Artificial Intelligence. Machine learning is additionally alluded to as prescient an- alytics, or prescient modelling.Machine learning algorithms examine input information to anticipate yield values inside an acceptable domain. As more information are input, they learn and enhance their operations to progress execution, creating ‘intelligence’ over time.

Automated disease prediction is one of the key research areas in health care. Automated analysis support help the medical staff,parents and the patients as early diagnosis of autism disease is one of major challenges as manual prediction could require up to many months to recognize the main features of the autism disease. To avoid these long procedures and the traditional methods used to diagnose the features of people with autism, data mining techniques were used to accelerate this process, which in turn led to a major development in this field, to improve the condition of a person with autism [1]

## II. LITERATURE SURVEY

Research in the field of ASD disease prediction using data mining has been an ongoing effort involving behavioral analysis and prediction which in turn help in early treatment, and risk score analysis with high levels of accuracy.Madhura Ingalhalikar et.al [2] presented a paradigm for generating a quantifiable marker of pathology that supports diagnosis and provides a potential biomarker of neuropsychiatric disorders, such (ASD).Based on the

abnormality scores, a distinction between the ASD population and TD controls was achieved with 80% leave one out (LOO) cross-validation accuracy with high significance of  $p < 0.001$ , 84% specificity and 74% sensitivity. Moorat Gök [3] employed tenfold cross-validation (tenfold CV) testing protocol for all classifier tests. Of all models, Bayes network yields better sensitivity performance than the other mentioned standalone methods with the value of 0.836. Osredkar et. al [4] used Non-parametric tests and support vector machines (SVM) with three different kernel functions (linear, radial, polynomial) to explore and optimize the multivariate prediction of an ASD diagnosis based on the collected biochemical measurements and predicted an ASD diagnosis with a balanced accuracy of 73.4%.

Vaidya et. al [5] found out that SVM trained on the discovery sample and tested on the replication sample classified subgroup membership with 77.0% accuracy and Split-half SVM classification on the combined sample ( $N = 1,012$ ) yielded 88.9% accuracy. Al Bahri et. al [6] developed ASD prediction model based on effective socio-demographic and family characteristic features and arrived at a conclusion that AdaBoost, neural network, K-nearest neighbour, and decision tree methods show higher accuracy results (0.9995, 0.9925, 0.9834, and 0.9786, respectively), whereas random forest, logistic regression, and Naive Bayes methods show relatively lower accuracy (0.8297, 0.8199 and 0.8002, respectively). However, the support vector machine method shows the lowest accuracy (0.7105). Retico et. al [7] provides evidence of structural brain gender differences in young children with ASD that possibly contribute to the different phenotypic disease manifestations in males and females. In the study, for both genders combined, SVM showed a significantly increased GM volume in young children with ASD with respect to control subjects, predominantly in the bilateral superior frontal gyrus.

Dahiwade et. al [8] finds that the accuracy of general disease prediction by using CNN is 84.5% which is more than KNN algorithm. Supervised data mining techniques are widely used in the disease detection. Healthcare professionals if assisted with easy and effective

ASD screening methods will benefit in terms of time and accuracy. The main objective of this paper is to propose a model for the early prediction of ASD using SVM technique which is a powerful and efficient tool to achieve this purpose.

### III. METHODOLOGY

The dataset was developed by Dr Fadi Fayez Thabtah [9] using a mobile app called ASDTests (ASDtests.com) to screen autism in toddlers with no missing values. It included 1054 instances with 18 attributes including the class variable. In this dataset, he recorded ten behavioural features (Q-Chat-10) plus other individual characteristics that have proved to be effective in detecting the ASD cases from controls in behaviour science. The first 10 questions contain the behavioural characteristics of the person based on communication and social interaction. The questions were graded using a one-point scoring system for each of the ten questions. On each question, the user might earn 0 or 1 point depending on their response. The entire dataset has been divided into two sections, one for training and the other for testing, using an 80:20 ratio.

#### A. Attribute Description:

Attributes A1-A10: among possible answers: "Always, Usually, Sometimes, Rarely & Never" items' values are mapped to "1" or "0" in the data set. For questions 1-9 (A1-A9) in Q-chat-10, if the response was Sometimes / Rarely / Never "1" is assigned to the question (A1-A9). However, for question 10 (A10), if the response was Always / Usually / Sometimes then "1" is assigned to that question. Other attributes include age in months, ethnicity, history of having Jaundice, gender, hereditary autism history.

#### B. Data Processing

We extracted the Toddler Autism data set in a uniform format. The step involved transforming the data, which involves removal of missing fields (there were no missing values in the data set), normalization of data, and removal of outliers. Out of the 18 available attributes, 'ethnicity' was omitted as inclusion of the attribute doesn't seem to affect the prediction much and hence has been excluded from the data set. For SVM, data points were

automatically centered at their mean and scaled to have unit standard deviation. For further studies, the same dataset with no changes can be used for decision trees or logistic regression.

C. Selecting the model

The SVC model is selected and trained. SVC is a non parametric clustering algorithm that does not make any assumption on the number or shape of the clusters in the data. In our experience it works best for low-dimensional data, so if your data is high-dimensional, a preprocessing step, e.g. using principal component analysis, is usually required.

The above graphs represent how each attribute individually relates to the testing and prediction of ASD.

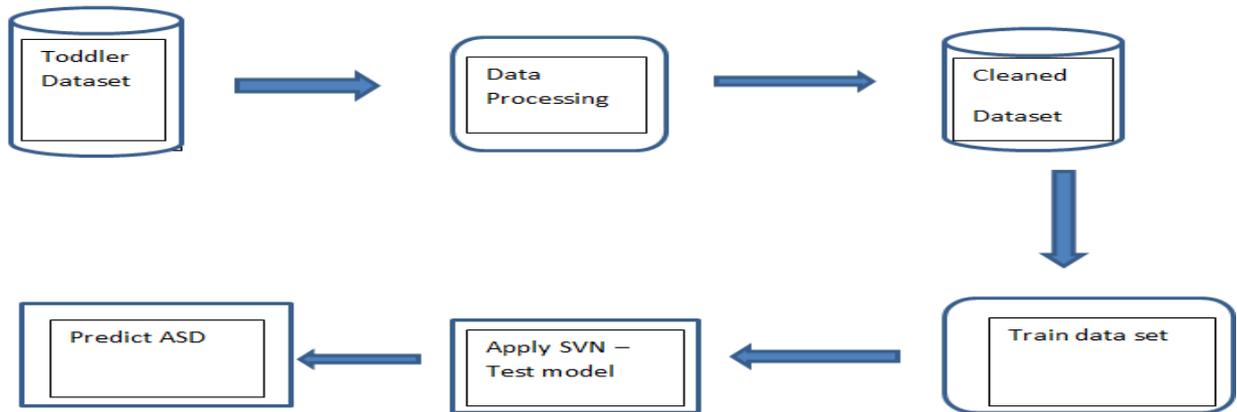
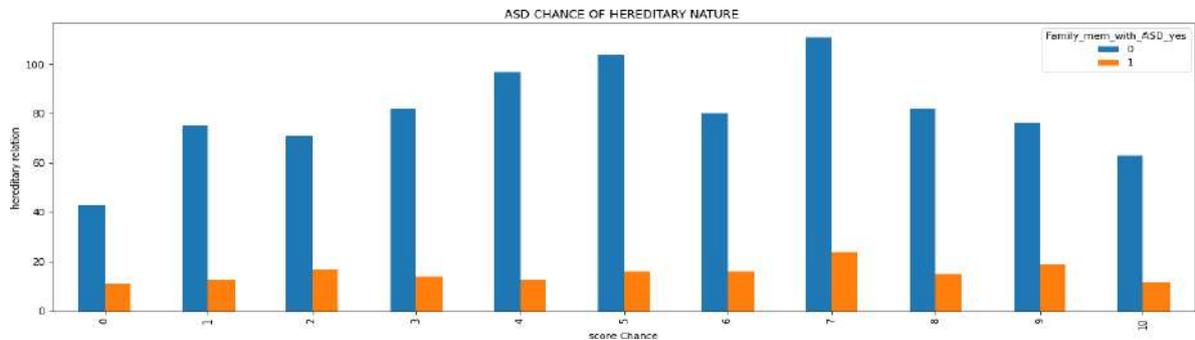


Fig. 1. ASD prediction Model



#### IV. RESULT

The accuracy of the model is found to be 99%.As explained by Singh et.al [10]The Accuracy of an algorithm is represented as the ratio of correctly classified patients (TP+TN) to the total number of patients (TP+TN+FP+FN).

$$Accuracy = (TP + TN)/(TP + FP + FN + TN) \quad (1)$$

$$Precision = TP/(TP + FP) \quad (2)$$

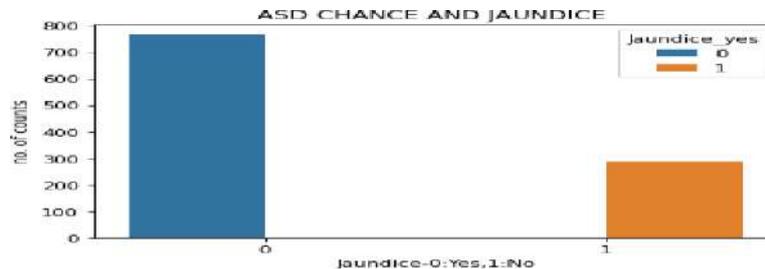


Fig. 3. influence of history of Jaundice on ASD

#### V. CONCLUSION

As Catherine et. al [11] define ,ASD is used to describe a constellation of early-appearing social communication deficits and repetitive sensory–motor behaviours associated with a strong genetic component as well as other causes. The designed model exhibited higher rate of accuracy and precision on the data set which was a collection of binary and non binary data.The hyper plane classification,analysis and prediction on the data appeared faster and reliable in predicting ASD spectrum.The following are the scope of future research.

- Use other supervised and unsupervised Machine Learning techniques on the same data set and compare the resultsto find the most effective model for ASD prediction.
- Suggest hybrid algorithms for precise predictions.

- ASD is a spectrum of disorders. Identifying and selecting the best attributes or combination of attributes will have significant impact on the effectiveness of the prediction model.
- By comparing different supervised machine learning algorithms for disease prediction, Uddin et. al [12] concludes that Random Forest algorithm showed the highest accuracy in 9 of them, i.e., 53%. This was followed by SVM which topped in 41% of the studies it was considered. This points to the designing of a new algorithms which can combine the best features of RF and SVM.
- Once an effective algorithms is developed by extracting the most suitable attributes or features, design such predictive models in other areas of the health sector also to help the society

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## “PERCEPTION OF EMPLOYEE VALUE PROPOSITION ON RETAINING TALENT WITH REFERENCE TO EMPLOYEES OF THE IT SECTOR”

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### **Abstract**

The IT Sector in India usually formulates a lot of retention strategies to ensure employees stay in the organization but, it has become a major concern since the IT industry is experiencing huge turnover rates. Since the IT sector had been experiencing lower retention which is disturbing the way organizations retain talented workforce in spite of heavily investing on training and development, the research seeks to find reasons to the problem which could be directly related to the elements of Employee Value Proposition. It seeks to point out how COVID trends have impacted the way employees stay in the organizations and what they expect from the organizations to stay longer more so due to the advent of ‘Great Resignation’. It studies how employees perceive the elements of EVP pre-COVID and during the Pandemic.

**Keywords-** Employee Value Proposition, Talent retention, Great Resignation, IT sector, Career progression, Benefits, Organisation culture, COVID-19, Retention strategies.

### **Introduction**

Since attracting and retaining best talent is harder than ever and with the Pandemic settling in for more than a year, consistent and efficient communication of Employee Value Proposition (EVP) has become extremely important. With the advent of opportunities for career growth and increasing need for career development, many employees prioritize career development opportunities and the same trend is seen in the IT sector. With many companies trying to retain freshly recruited candidates, there is an upward trend of leaving the company for pursuing higher education from the top colleges. While taking a sabbatical is an option for some, leaving the

organization for better prospects in the future is preferred by the others. An effective EVP is generally formulated by the organization to provide a consistent platform to facilitate employer branding and experience management.

The EVP attracts the right candidate and ensures that the candidate stays with the organization proving to be the high performer. In this regard, a lot of companies focus on developing and researching on what could be done better within the organization to increase retention and adopt retention strategies that could benefit the employee and the employer.

Some companies give an opportunity to provide exposure and train employees, while some improve their culture and the others try to provide a competitive pay than the market. Sometimes, the rewards and Long term incentives (LTIs) keep the employee grounded to the company and is also viewed as a retention strategy by many organizations. This has more relevance now since the COVID period has brought in new avenues of companies to go IPO (Initial Public Offering). The Restrictive Stock Units (RSUs) issued by the employer since the beginning could now be vested and the employees have a fair chance of reaping benefits if they stay for some more time in the organization.

Various strategies could be adopted by a company depending on the dynamic needs of the workforce and retention strategies like these have been devised accordingly. Since each company has its own way of devising retention strategies, the impact it creates on elements of EVP formulation plays a major role in branding and figuring what the company holds as its highest importance.

While entry level professionals could prefer an EVP focused on career growth, fun office environment, positive employee experience, and employee perks; professionals might prioritize career stability, child-care support, and work-life balance over the other elements.

## A balancing act!



Source: Mercer Consulting presentation on India Benefits

Contrary to popular belief, it is not just Compensation that drives an employee to leave or stay in an organization. Due to the increase in volatility, uncertainty, complexity, and ambiguity (VUCA) in the workplace adding to the woes of the Pandemic; right talent has become a key driver to determine success and retaining is a huge challenge.

The study is important to understand what goes in the employee's mind to stay in the organization and how EVP affects the organization's strategy to retain the workforce. The study aims to understand how employees view the elements of EVP and rate accordingly based on their order of priority. Different organizations in the IT sector would be studied to understand the perception of employees and whether they intend to stay in the organization for a longer time or not.

With The 'Great Resignation' going rounds, the research is instrumental to find out why employees are quitting organizations and what is it that makes them stay longer.

This would enable the researcher to understand and suggest how the EVP is valued by employees considering that the Pandemic has disrupted the way organizations function. The study also seeks to understand how satisfied the employee is with the present employer and suggest how the COVID trends imply the employee's priority of EVP.

## Background

Anne Lueneburger (2012) in her study suggests that the important part of retaining employees by organizations is by the way in which employee's strengths and weaknesses are realized and an opportunity to harness on one's potential is given in case of career development, providing avenues for role intervention and carving out career path opportunities for employee's growth. The researcher suggests that talent retention strategy like customizing according to the employee's ability and strengths could bring in better possibilities of a happy and committed employees. It states that this deepens the root levels of developing the leadership levels in the organization and individual job tasks are taken into consideration leading to effectiveness in coaching an employee.

Usha Tiwari, Devanshi Shrivastava (2013) in their study involved the various talent management and retention strategies adopted by AREVA T&D India Limited. It focused on understanding the talent management initiatives undertaken by the organization and measure how well it catered to the workforce being retained also considering the employee satisfaction levels. An interesting revelation from the research suggested that the age of the employees was independent to find the levels of satisfaction. However, the findings suggested that employee experience was highly dependent on talent management strategies and essence of job satisfaction to retain the employees in the workforce.

Vijay Kumar J., Navaneetha Kumar, R. Nagrajan (2012): The study was undertaken in the Indian software industries which usually face problems to retain the workforce and lower attrition levels using retention strategies. The authors clearly examined the phenomenon as to why there was higher attrition and what could be adopted by fast paced organizations to retain the talented workforce. The research also stressed on the dire need of the Human Resource department and HR professionals to focus on policies driving the workforce, through devising strategies and inculcating best practices by benchmarking policies and to enable the employees to contribute to the success of the organization. The research specifies on letting and encouraging the employees to stay productive and engaged with the same organization for a longer time fostering loyalty and commitment.

Vijaya Mani (2016): The study focused on the satisfaction of the employee's in their working life which was going to be directly associated with their value experience whilst working in the organization. The employees satisfaction is predicted based on the connection between the cost to

the company for the employee, the work to be performed by the employee and the standard experienced by the organization, the return on investment delivered to the company by the performance of the employee and the total balance of reward and benefit received as preferred by the worker. It is this balance between the value and quality which will cause competitive advantage as opined by the researcher. The study also focused on deciphering how the success of retention would depend upon the implementation of a talent attraction and retention strategy. The research states the need to develop an effective EVP strategy to facilitate upholding the goals to ensure that the employees have high morale, stay committed and loyal to the organization facilitating retention. The research concluded that the organizations which give high priority to develop a competitive EVP strategy according to the needs of the VUCA world have higher retention. The research clearly identified shortcomings within the present retention process and suggested methods to develop an efficient strategy for developing the employee retention rate within the organization.

EVP- Corporate Leadership Council (CLC), (2006): The article undertaken proposed mainly five categories of EVP namely Rewards, Opportunities, Organization, Work and People. These have been framed according to uphold the employee- employer relationship. The most popular and appealing amongst the components of the EVP is the remuneration package that most employees prefer whilst retaining in an organization. It is usually made up of wages, salary, allowances, commissions and profit sharing, adding up to the rewards and recognition, LTIs and STIs, including equities and options. According to this article, the employees found compensation to be a driving factor why many preferred to change organizations and prefer a higher paying job which acted as a motivator and stood apart from the EVPs of the other competing organizations.

Tandehill (2006) specifically in his research, linked employer branding to EVP suggesting that organizations should be able to clearly state what makes them the bigger brand and why their employees opt for staying at the organization amounting to higher work experience whilst being committed to their job. He clearly examines the need for organizations to identify unique and clear policies, programs and processes to revive organizational commitment to employee's growth and recognition. The study also envisages the need to know why employees would want to choose the specific organization and commit themselves to staying loyal. With respect to this, the organization

stresses on actively communicating its EVP strategies to the public contrary to popular belief that only envisages on the need for higher compensation.

Elizabeth G. chambers, Mark Foulon (2007) The article “The war of talent”, published by McKinsey Quarterly suggested that the companies with superior Employee’s Value Proposition aids in tailoring the company’s “brand value” and reveals to the potential workforce about the jobs it has to offer. The article specifies that it helps to appeal, attract and retain high performing workforce in the organization. The importance of Employee’s Value Proposition in accentuating the brand value was realized.

Heger Brian K (2007) suggested from his research “linking the Employee’s Value Proposition and business outcomes” that there is a considerable effect of Employee Value Proposition on talent retention and employee engagement. It has been opined that both of these play a major role in deciding the outcome of successful and critical business operations. It advocates the need for a stronger EVP which is directly proportional to leading successful business outcomes of an organization. It is a deal breaker compared to how the organization is competitively placed from the business perspective.

Rani and Joshi (2012) addressed through their research about how recruitment and selection being one among the most traditional functions in Human Resource Management, needs to be effectively related and managed in the dynamic management context with a specific focus on managing talent. The research effectively expressed from a strategic business standpoint that talent management may be defined as a core sub-system of a company to develop a potential human resource asset base which is to be able and capable enough to support current and future company growth directions and objectives. The research also viewed Talent to comprise three key component talent identifications which are namely internal and external talent development within and outside the organization- intrinsic and extrinsic; talent engagement strategies, instilling motivation and facilitating retention of employees.

Pamela Bethke, Bruno Staffelbach (2011) in their article effectiveness of talent management strategies talked about the different types of talent management strategies that have an impact on organizational performance. The article discussed four different strategies and even explained how they affect an employee’s organizational performance. The article particularly researched with a

data-set of 138 Swiss companies. It showed that when talent management is focused on retaining and developing talents, it evidently has a significant positive impact on human resource outcomes such as job satisfaction, motivation, commitment and trust in leaders leading to higher productivity and retention. It is even discussed that when talent management practices have a strong focus on corporate strategy, it is said to have a statistically higher significant impact on organizational outcomes such as company attractiveness, the achievement of business goals, customer satisfaction and most importantly, corporate profit than any other areas of talent management.

Mathew A. (2012) in his research ostensibly focused on the usage of talent management practices by many leading organizations also including big multinational corporations in India. The Author had also made a considerable attempt to probe various talent management practices and processes that are followed in a sample of eleven MNC organizations. The organizations were chosen by the researcher based on their international presence and brand identification for a long-term presence, a web based survey was undertaken consisting of human resource professionals and senior professionals in respective organizations and the study even identified the various practices that helped the organizations to attract, select, develop and sustain high performing talent.

Pratibha Goswami (2015) in her research “Effectiveness of Talent Management in Relation to Employee’s Value Proposition Creation and Retention in IT Industries” reveals that organizations that have sound talent management practices comprising of factors like creation of employees’ value proposition, facilitating retention, ensuring employees satisfaction will often create a positive branding of the employment within the employees working in an organization. The researcher also states that Employee’s Value proposition often serves as an effective employment branding tool in an organization that is often less regarded but gains value when it is included with work culture, aligned with improving recruitment strategies, orientation, strategizing on pay and benefits, improving work-life balance, facilitating leadership and management, ensuring fair performance management thereby leading to growth and development in an organization.

Dieter Veldsman (2018) in his research ‘The Relevance of the Employee Value Proposition for Retention in the VUCA World of Work’ states that the organizational landscape in the workplace is characterized by volatility, uncertainty, complexity and ambiguity (VUCA) and that the workplace is running in the VUCA world. The research focuses on how organizations are ever-

changing, adapting and reinventing the world of work to become more agile and create a more sustainable workforce. It has stated that since hiring the right talent has become a key ingredient of success, organizations are battling to attract, engage, and retain talent in an organizational landscape. It even stated that traditional retention mechanisms have now become obsolete in organizational context, and that the focus has recently shifted towards crafting a holistic employee experience through framing and conceptualizing an attractive, realistic, and coherent employee value proposition (EVP). The research explored the EVP as a method of retaining talent in the VUCA environment more so since organizations are moving towards a dynamic fast paced environment. It focused on defining the concept along with mentioning the different approaches associated with crafting a compelling and attractive EVP, and the challenges faced during EVP implementation in the organizational context.

Eric Hgchee Hong, Lamzheng Hao (2012) in the research 'An effectiveness of human resource management practices on employee retention in institute of higher education' explains how employees usually regard the importance of their empowerment while working at the organization, equity of compensation sought, job design modifications through training and employee's expectancy towards effective performance management that facilitates for their retention. It had been found that various elements like training and development, organization's appraisal system, compensation design are significant and ensure employee retention except for employee empowerment.

Anand (2004) in his research "Talent development and strategy at telecom major Bharti Airtel" focused to effectively understand the nuances of talent management innovation, studying practices and processes of Bharti Airtel which is the major telecom industry in India. The research aimed at revealing the process of effective management of the talent pool which led to enhanced employee engagement, exponentially reducing attrition and proportionately increasing the average tenure of the employees. This often leads to inculcating and embarking employee loyalty, fostering an company culture filled with commitment and retention at the workplace. The researched threw light on how talent management strategies and processes have effectively contributed in varying degrees for the development and growth of employees working in the organizations.

Jyotsna Bhatnagar (2007) in her research 'Talent Management Strategy of employee engagement in Indian ITES employees: Key to retention' investigated that talent management has its relationship with various levels of employee engagement and the researcher used a mixed method research design. The research in the first phase shows low factor loadings that indicated low employee engagement scores at the beginning of the career and within the completion of first 16 months with the organization. It was observed that high factor loadings at intermediate stages of employment like lateral hiring were indicative of high engagement levels, however the interview data reflected that this might also suggest high loyalty for a limited time. In the second phase of research, the factor loadings indicated three distinct factors of organizational culture which are: career planning when facilitated along with incentives and organizational support. The first two factors were indicative of high attrition reducing retention.

Kule Lagunas (2012) in his article 'Five employee retention strategies for a higher performance environment' mentioned about five employee retention strategies that the organizations could follow to facilitate and foster a fast paced high performance environment. The following strategies are: (i) hiring employees who would stay in the organization (ii) facilitating career planning (iii) ensuring retention comes personally to the employee (iv) getting to the grass roots of underperforming employees (v) investing quality time with the line managers understanding what they want and lending an ear to promote active listening.

Binu Raj A (2021) in her research 'Impact of employee value proposition on employees' intention to stay: moderating role of psychological contract and social identity' suggests that employees usually have an intention to stay and retain in the organization when the organizations have a strong well-articulated EVP that focuses on 3 values namely- development, social and economic value. It was also specified that the employees usually have a strong liking or intention to stay when they positively identify to the organization's image with a sense of pride. It was found that psychological contract is linked to positively create an impact on EVP with respect to employees willing to stay longer in the organization. The research aimed at focusing on an integrated model of delivering an EVP wherein it is based on the process of social exchange, further moderated by social identity and psychological contract.

### **Benefits of a well-articulated employee value proposition**

- An articulated EVP ensures that employees personal values are met with the vision and goals of the organization. It also facilitates an extended emotional contract with the organization.
- When an EVP is formulated keeping in view the needs of the VUCA world, there is an increased value addition by employer branding with EVP to attract talented workforce.
- An EVP envisages the fact that employees feel committed and motivated to keep associated with the organization resulting in lower turnover and higher retention.
- Due to this behavior, employees tend to refer and a referral system is created to assist the organization in branding itself and attracting potential candidates.
- With an articulated and competitive EVP framed which becomes harder to replicate by competitors, only the success factors come to play with an exponential growth in profits and shares suggesting the best talent being recruited.

### **Case of employee retention strategies**

With the advent of COVID and increased awareness on mental health, companies have started to value organization culture to be the X-factor in retaining employees, some even included the IPO (Initial Public Offering) strategy to ensure employees stay with the organization for a longer time considering its growth in the market. One such example is that of Freshworks wherein the organization took to social media by storm by listing at the NASDAQ and being one amongst the few potential companies worth working for in the SaaS space. From celebrating 'Refresh Days' and empowering a diverse workforce through strategic hiring to build inclusivity, issuing RSUs (Restrictive Stock Units) to the employees and focusing on employee well-being; the company certainly stood as a benchmark to the other companies struggling to retain employees. Through its strategic positioning, the EVP elements to build a stronger Organisation culture and cover the Rewards and Recognition aspect ensured that it positioned itself and stood strong in terms of employer branding and retaining employees.

### **Findings**

- More than half of the respondents (51.2%) agree that their organization is much concerned about their career development and growth opportunities for future.

- More than one third of the respondents (37.5%) strongly agree they are satisfied with their company as a place to work compared to other places.
- More than one third of the respondents (36.2%) agree that the training programs provided by the organization are adequate for their development.
- More than one third of the respondents (37.5%) agree that the salary that they receive is adequate.
- Nearly half of the respondents (45%) agree that HR policies are effective to keep employee motivated and retained with the organization.
- More than one third of the respondents (40%) agree that their senior managers are much concerned about employees and they care for them.
- More than half of the respondents (52.5%) strongly agree that apart from financial benefits; career growth, work culture and international opportunities are important for them.
- More than one third of the respondents (46.3%) have a neutral opinion that get frequent salary increments.
- More than one third of the respondents (40%) agree that their organization is much concerned about our work-life balance.
- Half of the respondents (50%) agree that their organization offers bonus & incentives that are attractive enabling them to stay for a longer period.
- More than half of the respondents (52.5%) agree that they always get valuable feedback from their supervisors.
- More than one third of the respondents (42.5%) agree that they are extremely satisfied with the salary and benefits package they receive.
- More than half of the respondents (60%) agree that the level of stress in their job is manageable.
- More than one third of the respondents (40%) agree that they are getting required support from my superior and concerned authority.
- More than half of the respondents (55%) agree that their work is often recognized and praised by my superiors.
- More than one third of the respondents (42.5%) agree that they find themselves comfortable with the organization's culture.

- More than one third of the respondents (43.8%) agree that they are happy with their Company's performance evaluation system.
- More than half of the respondents (55%) agree that their Managers consistently provide ongoing developmental feedback to support and encourage employee development.
- Half of the respondents (50%) agree that their organization salaries and bonuses are linked to performance or the development of competencies of employees.
- More than half of the respondents (56.3%) agree that the employees have a clear picture of skills they should build to support business growth.
- More than one third of the respondents (47.5%) agree that their Managers are trained to select, identify, guide, coach, reward and retain their people.
- More than one third of the respondents (36.3%) agree that their organization provides employees with better opportunities for growth and development like fast track promotions, etc.
- More than half of the respondents (51.2%) agree that they consistently attract and retain high quality applicants.
- More than one third of the respondents (31.3%) agree and are positively neutral about their organization providing meaningful pay differentiation to high performers/high potentials through both base and variable pay.
- More than one third of the respondents (33.8%) agree that the rate of employee turnover in their company is lower.
- Almost half of the respondents (46.3%) strongly agree that their organization provides a comfortable, safe work environment and has a good reputation in the community.
- More than one third of the respondents (40%) agree that their organization cares for the well-being of the people by making their lives easier and less stressful.
- More than one third of the respondents (30%) agree and are positively neutral about organizations spending more time and money on our retention programs than on recruitment.
- More than one third of the respondents (41.3%) agree that their CEO and board of Directors are actively involved with leadership development activities.

- More than one third of the respondents (40%) are neutral that could get a higher pay considering their experience and skills.
- Almost half of the respondents (46.3%) agree that they are satisfied with the medical insurance options given by their organization.
- Almost half of the respondents (45%) agree that their work is being recognized duly.
- More than one third of the respondents (32.5%) have opted Career progression for staying in their present organization.
- More than one third of the respondents (35%) have opined that they would want to stay in their organizations for 2-4 years before making a switch to another company.

### **Findings from statistical analysis:**

Collectively analyzing the responses from the respondents using statistical methods, it was found that:

- There is a significant relationship between retention and elements of employee value proposition. (0.870 correlation value)
- There is no significant difference in age groups with regard to talent retention. (0.311)
- There is no significant difference in gender groups with regard to talent retention. (0.275)
- There is no significant difference in pre- COVID and post- COVID employee value proposition. (0.848)
- There is a significant relationship between employee satisfaction and employee value proposition. (0.702 correlation value)
- There is a significant difference between employee commitment level with regard to Employee Value Proposition as it is evident from the mean of high commitment level (55.9730) and low commitment level (66.9070).

### **COVID and the way forward**

More than one third of the respondents (28.7%) have opined that organizational culture and career progression was the most valuable to retain an employee "before COVID" in their organization while (27.5%) have opined that Benefits provided by their company was the most valuable to retain an employee "during COVID" in their organization.

### **Emerging opportunities and challenges**

The employee value proposition (EVP) depicts how the labour market and employees view the benefits that employees receive from working for a company. Because the majority of EVPs are difficult to manage, some include the incorrect attributes or fail to distinguish themselves from competitors while the others reveal a large disconnect between promise and reality, leading to lower employee commitment. Strategic EVPs are also connected to understand employee engagement. It facilitates decrease in employee turnover and increase in talent retention using an employee centered approach.

With The 'Great Resignation' going rounds, the research was instrumental to find out why employees are quitting organizations and what is it that makes them stay longer. This enabled the researcher to understand and suggest how the EVP is valued by employees considering that the Pandemic has disrupted the way organizations function.

Since the EVP forms a major part of deciding whether any changes could be adopted by the company to attract the right candidate, it also gives a fair understanding of what an employee expects from the company be it in terms of career growth, compensation, culture, benefits, etc. It's also a wonderful tool for retaining talent, and organizations with effective EVPs tend to have greater staff retention rates. Some companies give an opportunity to provide exposure and train employees, while some improve their culture and the others try to provide a competitive pay than the market. Sometimes, the rewards and Long term incentives (LTIs) keep the employee grounded to the company and is also viewed as a retention strategy by many organizations. This has more relevance now since the COVID period has brought in new avenues of companies to go IPO (Initial Public Offering). The Restrictive Stock Units (RSUs) issued by the employer since the beginning could now be vested and the employees have a fair chance of reaping benefits if they stay for some more time in the organization.

**Suggestions and closing remarks:**

- Since the research conducted clearly establishes a positive relationship between Employee Value Proposition and retention, it is very important to understand that the EVP should be relative and dynamic to suit the needs of the employees as like how the preferences of EVP elements pre-COVID and post- COVID have changed for employees to stay in the organization.

- It is imperative for organizations to constantly benchmark and refer to the reports of Gartner, Mercer, etc. to understand industry trends and incorporate retention strategies.
- Since retention is specific to a company depending on various factors like Employer branding, etc; retention strategies could be formulated by conducting an in-house research than assuming and coming up with initiatives. Listening to the workforce and having a one-on one discussion always aids in setting up strategies than relying on consultant reports.
- Various job-shadowing methodologies could be carried out for potential recruits to get trained on the job and progress well in their career since it ensures that the talent stays and avenues for career growth and work environment could be widened.
- Organizations can have anonymous surveys to find out the dream companies of their employees and what they like the best to consider adopting such strategies to retain them.
- The Organization's culture should be supportive of robust and dynamic initiatives by the work- force. Incentives and reward schemes can be designed in such a way that it encourages the work- force in taking risks and the top management's support in doing so would prove crucial. Scope to experiment and make mistakes within the boundaries of reasonability with mentoring should be widened.
- A proper mentoring system can help employees on the field get in-house training while in the COVID period to cut down training costs and increase the skillset backed by the power of expertise and experience. Thus, a proper channel of communication must integrate field employees with superiors.
- Various strategies could be adopted by a company depending on the dynamic needs of the workforce and retention strategies like these have been devised accordingly. Since each company has its own way of devising retention strategies, the impact it creates on elements of EVP formulation plays a major role in branding and figuring what the company holds as its highest importance.
- Scope for further research exists through the prospect of narrowing down EVP elements strictly to pre- COVID, during COVID and post- COVID preferences to understand employees' decisions of staying with the company and the organization's breakthrough retention strategies. Thus, further exploration of the topic can be carried out to understand workforce woes and priorities throughout the contingency phase.

Therefore the study, concludes that there is a significant relationship between retention and elements of employee value proposition which also translates to employee commitment and satisfaction that could be enhanced by understanding employees' perspectives and intensive company intrinsic research.

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## REVENGE SHOPPING POST LOCKDOWN AND RETAIL CHANNEL PREFERENCES

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### ABSTRACT

In the post lockdown situation, where retailing is being re-defined, there has been a drastic shift in the shopping trends as well as the channels of retailing. This study is being conducted for the purpose of understanding the existence of revenge shopping amongst individuals of different occupational statuses as well as their preferences towards various retailing channels, during as well as in the post lockdown period. This research is being conducted on a sample of 66 respondents in the geographical area of Bangalore and aims to establish the existence of revenge shopping in the post lockdown period along with customer preference opinions on various alternatives of retailing channels.

### INTRODUCTION

The term 'revenge shopping' refers to the shopping or buying behaviour of individuals after a considerable duration of break or a gap in the same. This gap might have been due to various reasons. Earlier on, prior to the when the pandemic struck, this gap could have been due to an emotional turmoil, a busy period in life with no leisure or time to relax and so on. But today, a new trend is being seen which is a surge in retail shopping in physical outlets post the pandemic's striking.

During the Covid-19 pandemic, there were mass lockdowns all over the world, sometimes at a different time period based on the timelines of the Covid waves but the impact was devastating nonetheless. During this time of lockdown, people were asked to quarantine and social distancing became the need of the hour. With this being said, it is clear that the retail sector is one which faced a severe hit in its brick-and-mortar format.

All physical stores were closed or followed high number of restrictions in their operations. There was no free movement for shopping in a physical store. With this being the scenario during the pandemic, retailers were forced to resort to alternative channels of reaching the customer in order to carry on their business. This led to the development of online shopping channels, order and pick up from store, same day delivery, drive through and so on in addition to shopping at a brick-and-mortar store.

Apart from just considering the physical store mode of shopping, even online shopping has seen as surge of 16% - 19% (as per UNCTAD) and this translates in figures to global e-commerce standing at \$26.7 trillion.

To consider the perspective of the customers here who are resorting to revenge shopping, there could be various reasons for the same. As per a study conducted by the World Health Organization, there has been an increase in depression and anxiety rates by 25% all over the world with the onset of the pandemic.

This paper aims to understand revenge shopping during the covid lockdowns and in the post lockdown phase as well as the significance of various emerging retail channels and the customer preferences towards the same.

## REVIEW OF LITERATURE

The review of literature includes articles, books and research papers related to the subject of revenge shopping and retail channels preferences. The papers researched and reviewed are published within the range from 2021-2022 on the topics of revenge shopping and retailing trends post the pandemic.

## RESEARCH METHODOLOGY

### STATEMENT OF THE PROBLEM

The problem in this research paper is to understand the existence and extent of revenge shopping among the sample in Bangalore in the pandemic period post the lockdowns. It is to understand the increasing or decreasing trend of retail shopping in physical outlets once the restrictions to do so have been lifted and there has been a change in the number of channels and methods of retailing.

### SCOPE OF THE STUDY

The scope of this study extends to understanding whether revenge shopping exists in the post pandemic or post lockdown phase in Bangalore, the extent to which it does and which segments of customers seem to exhibit this behaviour of revenge shopping in brick-and-mortar retail outlets.

### SIGNIFICANCE OF THE STUDY

- This study aims to highlight the recent trends in the retail industry, specifically post the covid lockdowns.
- It also strives to highlight the existence of revenge shopping among people of different occupational statuses and this trend in the post lockdown period.

### OBJECTIVES OF THE STUDY

- To understand the existence of revenge shopping behaviour among customers of different occupational statuses in Bangalore post the covid lockdowns.
- To understand customer preferences with reference to the channel of retailing post lockdown.

## HYPOTHESIS

### **Hypothesis 1**

$H_0$  = There is no relationship between the occupational status and the existence of revenge shopping behaviour post the covid lockdown.

### Hypothesis 2

$H_0$  = There is no relationship between the age and retail channel preferences post lockdown.

## SOURCES OF DATA

The data being used for this research is primary data being collected through a sample of 66 respondents from Bangalore across various occupational statuses and age groups.

## METHODS OF DATA COLLECTION

The methods of data collection would be the collection of first-hand data or primary data through a questionnaire that was shared with members of the sample.

## LIMITATIONS OF THE STUDY

- The study is limited to the geographical area of Bangalore city.
- Study shows revenge shopping behaviour and retail channel preferences in an urban city set up only.

## RESEARCH GAP

- Identifying the existence of retail therapy as a factor for revenge shopping.
- Identifying the extent of awareness and adaptations of different retail channels by customers post the lockdown.

## DATA ANALYSIS AND INTERPRETATION

### Hypothesis 1:

$H_0$  = There is no relationship between the occupational status and the existence of revenge shopping behaviour post the covid lockdown.

As per the data collected through the questionnaire as the input, the analysis of the ANOVA test shows that there is a **P value of 0.875** which is greater than the significance level of 0.05. This indicates that the null hypothesis can be accepted.

## ANOVA

Revenge shopping during and post Covid lockdown

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	.176	3	.059	.230	.875
Within Groups	15.779	62	.254		
Total	15.955	65			

This establishes that there is a relationship between the occupational status of individuals and the extent of revenge shopping behaviour that they portray.

**Hypothesis 2:**

$H_0$  = There is no relationship between the age and retail channel preferences post lockdown.

**ANOVA**

Customer preferences of retail channel based on age

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	26.513	3	8.838	1.218	.311
Within Groups	449.805	62	7.255		
Total	476.318	65			

As per the data collected through the questionnaire as the input, the analysis of the ANOVA test shows that there is a **P value of 0.311** which is greater than the significance level of 0.05. This indicates that the null hypothesis can be accepted.

This establishes that there is relationship between the age of the customers and the variety in retail channels that they prefer post the covid lockdowns.

This is in terms of alternative retail channel options such as offline retailing, online retailing, order and pick up, drive through, express home delivery, same day delivery etc.

## FINDINGS AND SUGGESTIONS

From the study conducted on a sample of 66 individuals across different age groups, genders and occupational statuses, we find that the null hypothesis in this study can be accepted.

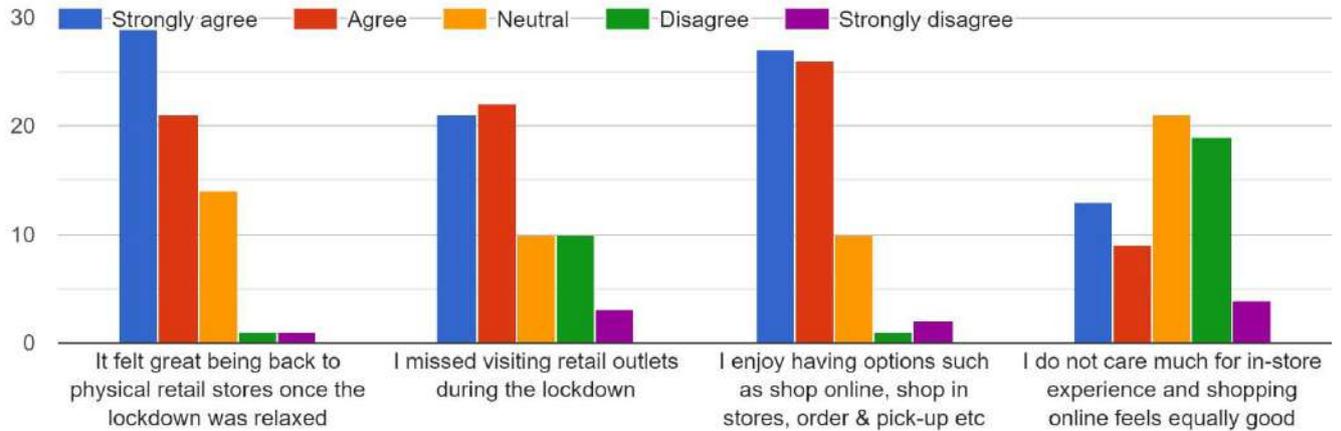
There has been a variety of age groups in the sample but the majority being 56.1% between the ages of 21 – 30 years. The gender response is female dominated by 66.7%, followed by 31.8% males and 1.5% others. The occupational status received response from all buckets enlisted such as unemployed, employed, employed part time and retired.

The findings show that 63.6% of the sample under study enjoys shopping and a close value of 66.7% enjoys shopping through both online and offline retail channels. Considering the effect of the covid lockdowns, 59.1% of the sample admitted to buying things that they did not really need during and post the course of the lockdown.

In the Likert scale analysis that was conducted, what stood out was that although a vast majority enjoyed having options of different retail channels, majority of the sample strongly agreed to missing retail outlets and feeling great to be back to them post the lockdown. A major finding here is that retail store outlets still hold a major significance in spite of other channels such as online shopping, order and pick up etc develop over time.

Below are the findings from the Likert scale analysis:

### Significance of shopping channels



### Shopping and me!



Overall, 69.7% of the sample agreed that shopping helped them feel better through the course of the lockdown and thus lead to a revenge shopping behaviour.

The suggestions that can be made based on this research are as follows:

- Retailers should adapt to various retailing channels but continue to follow the traditional format as well.
- Marketers and retailers should promote those items based on customer requirement, specially in cases of revenge shopping behaviour that has been exhibited during the lockdown and in the post lockdown phase.

## CONCLUSION

To conclude we can say that the emergence of revenge shopping and multiple retail channels have redefined the face of the retailing industry and it continues to develop as we progress through the covid waves. We can decipher from this study that there has been demonstration of revenge shopping during these periods of time as well as a development of preference towards multi-channel retailing.

The results indicate that although there is a boom in online shopping post the pandemic as a convenient choice of retailing, brick and mortar stores still have their significance and continue to remain a conscious choice of the customer.

There has been the evidence of revenge shopping existing and customers being highly interested in offline shopping in physical retail outlets post the pandemic and shopping in excessive amounts compared to earlier. Thus, we can conclude the existence of revenge shopping due to the pandemic and the emergence of various retail channels as the new choice of preferences of the modern-day customer.



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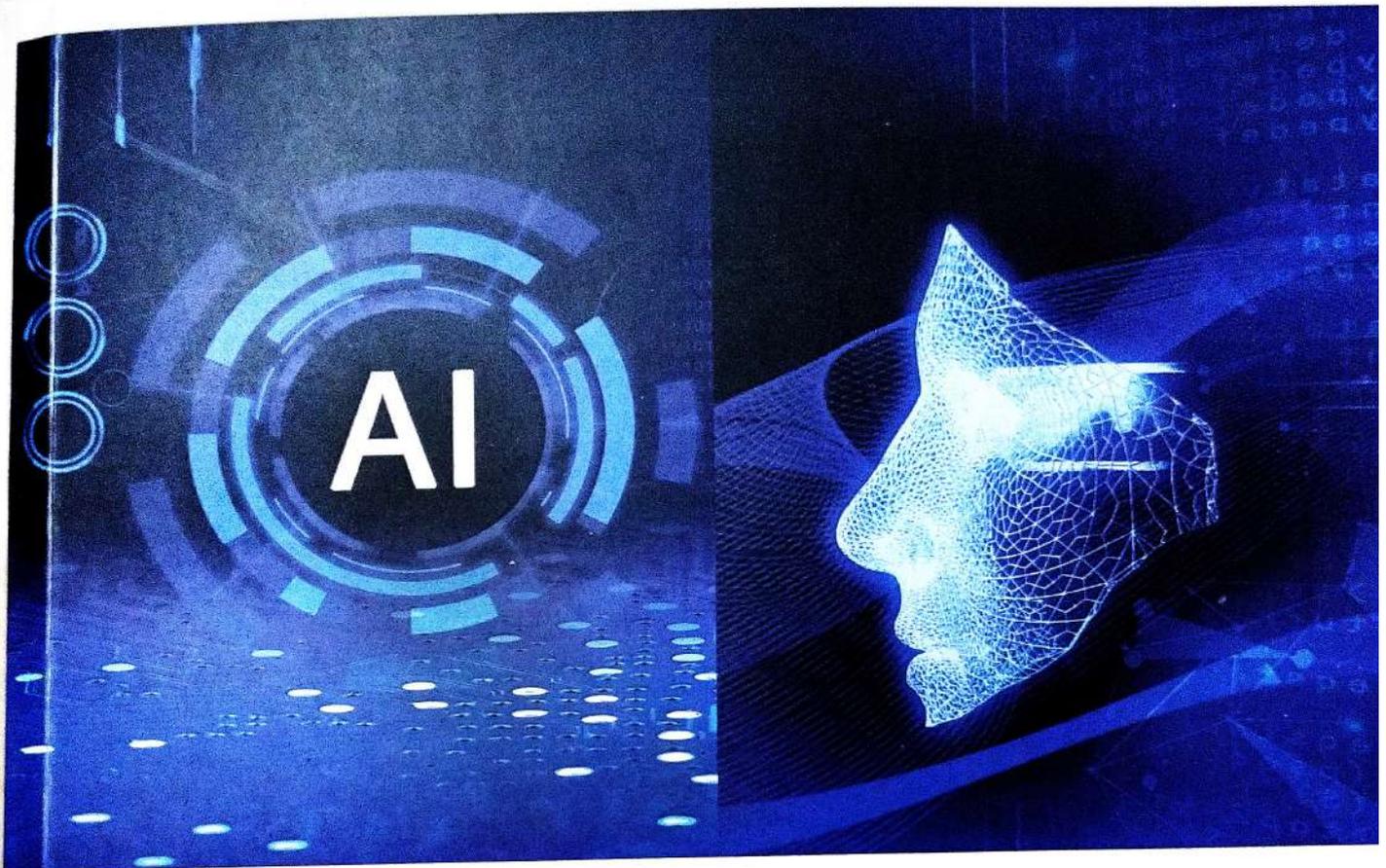
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19	A STUDY ON THE INFLUENCE OF AUGMENTED REALITY ON CONSUMER BUYING INTENTIONS Ms. Renisha Christy R Dr. Priya. C	138
20	STUDY ON CONSUMER'S BEHAVIOUR TOWARDS ORGANIC PRODUCTS AND SUSTAINABILITY Ms. Vasanti	143
21	ANALYSIS ON STUDENTS' ACADEMIC PERFORMANCE USING MACHINE LEARNING ALGORITHMS Ms. A. Martina Betsy	148
22	FUTURISTIC GOALS OF TECHNOLOGY AND MARKETING: A MULTIDISCIPLINARY EVASION Dr. Sowmya. S	156
23	A STUDY ON THE CHALLENGES FACED AMONG SCHOOL TEACHERS FROM THE STUDENTS END IN USAGE OF MOBILE PHONES HAS INCREASED AFTER COVID-19 Mr. Shankar	160
24	SOCIAL MEDIA INFLUENCE TOWARDS ONLINE SHOPPING K. Seema, Dr.Arokiamary Geetha Doss	168
25	A STUDY ON CUSTOMER SATISFACTION TOWARDS ONLINE FOOD ORDERING WITH SPECIAL REFERENCE TO NORTH CHENNAI Mrs. Anitha. K, Dr. Arokiamary Geetha Doss	176
26	EMOTIONAL MARKETING Ms. V. Sandhiya, Ms. S. Yamunadevi	182
27	A STUDY ON THE EFFECTS OF WORK FROM HOME EMPLOYEES IN THE IT SECTOR OF THE CHENNAI DISTRICT Mrs. S. Geethalakshmi	187
28	CHANGING NATURE OF EMPLOYEES PERCEPTION TOWARDS ORGANIZATIONAL WORK CULTURE IN IT SECTOR (With special reference to Chennai City) Dr. R. Uma, Ms. Shanmuga Priya R	196
29	A STUDY ON IMPACT OF SOCIAL MEDIA ADVERTISEMENT ON IMPULSE BUYING BEHAVIOUR OF WOMEN CUSTOMERS [FAST MOVING CONSUMER GOODS] IN CHENNAI CITY Dr. R. Uma, Ms. Archana K	203
30	A STUDY ON THE OPPORTUNITIES AND CHALLENGES OF STUDENT SURROGATE ENTREPRENEURSHIP IN INDIA Dr. Anuradha .B	208
31	RECENT ADVANCEMENT OF OPERATIONS RESEARCH IN ARTIFICIAL INTELLIGENCE S. P. Raghapriya	213
32	EMOTIONAL MARKETING CONSUMER ATTITUDE AND PURCHASE DECISION TOWARDS SILK SAREE IN CHENNAI CITY Ms. A. Yuvarani Ms.S.Jayalakshmi	218
33	PRIORITIZING THE FACTORS THAT INFLUENCE HOW SATISFIED CUSTOMERS ARE WITH COOPERATIVE BANK SERVICES IN TAMILNADU Dr.R.Bhuvaneswaran Dr.N.Santhanavadiu,	224
34	FACTORS INFLUENCE OF SOCIAL NETWORKING SITES ON CONSUMERS' PURCHASE ATTITUDE Ms. Thamarai Selvi M, Dr. V. Sampathkumari	235

## 23. A STUDY ON THE CHALLENGES FACED AMONG SCHOOL TEACHERS FROM THE STUDENTS END IN USAGE OF MOBILE PHONES HAS INCREASED AFTER COVID-19.

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Dwaraka Doss Goverdhan Doss Vaishnav College, Arumbakkam.

### ABSTRACT

Today's generations are experienced with various technological component and its applications, though at one end it's good for the social cause and technological growth on the other end most of the people had become addicted towards it. In this study we are going to discuss about the challenges faced among school teachers from the student's end due to increase in usage of mobile phone after Covid-19. Before covid-19 the usage of mobile among the school students is very less since all the teaching methods was in demonstrative or coaching style but during Covid-19 most of the school started taking class through virtual mode because of that the parents were in the compulsion of purchasing mobile for their wards this had made them to be more closely associated with mobile phone technology.

The usage of mobile phone among the students was taken them to various level of thought because of that student can't able to concentrate more on their studies after Covid-19 and also the psychology character and behaviour of the students reflects much changes because of that the teachers find hard to handle the situation. Sometimes the teachers are facing mental agony and stress in handling tough situation. This study was conducted among the selected school and the respondents are the teachers, based on their perception and problem faced related to the questionnaire will be analysed and the suggestion will be given for the effective measures in controlling.

### INTRODUCTION

In today's Context the education filed was more influenced by various technological tools and application software to enhance better quality in teaching. On the other hand, the students have a greater hindrance in misusing the usage of technology because of that the teachers and the parents are facing various issues related to children growth and career prospects. In one aspect the teachers are highly facing such problems during classes. Nowadays such things are happened more after Covid-19 since there was a wide gap created among the teacher student's relationship. During covid-19 the education industry started setting a new benchmark by taking classes through online mode because of that most students got more freedom since it the education system comes like a work from culture. Whereas the parents are unable to monitor their wards on regular basis because of that most of the students were started to spend more time on mobile phone by playing games and



வரகவியாய் வலம்வந்த வைரம்  
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1. பதிப்புரையும் பழகியவுரையும் – முனைவர் ப. முருகன் . . . . . 05
2. கவிச்சித்தர் – முனைவர் கு. சுதாகர் . . . . . 16
3. நானும் கவிதாசனும் – முனைவர் சி. சதானந்தன் . . . . . 19
4. வரதன் ஐயாவோடு சில நினைவுகள் – முனைவர் க. கிரிவாசன் . . 24
5. காணிக்கை – கவிதாசன் . . . . . 26
6. வாழ்த்துக்கவி – கவி. தண்டமிழ்ப்பித்தன் . . . . . 28
7. வரகவிதாசன் வாழி – பொன்னப்பிள்ளை . . . . . 30
8. அன்னையின் ஆசியுரை – பத்மாமணி அம்மாள் . . . . . 32
9. எமது இனிய வாழ்த்து – சிவதங்கையா . . . . . 33
10. காலமெல்லாம் கவிதாசன் வாழ்க மாதோ – கே. ராமமூர்த்தி . . . . 35
11. ஒரு பிரம்மச்சாரி பெற்றெடுத்த ஞானக்குழந்தை – இளந்தேவன் . . 37
12. காலமே ஒருநாள் கவுரவிக்கும் – கண். சீனிவாசன் . . . . . 40
13. வாழ்த்துரை – முத்துளத்திராசன் . . . . . 42
14. சாகாத கருத்தும் சரியாத எழுத்தும் – குறள்தாசன் . . . . . 43
15. காணிக்கை மலர்கள் – இதயகீதம் இராமானுஜம் . . . . . 45
16. உரத்த சிந்தனை வாழ்த்துகிறது – உதயம் ராம் – எஸ்.விராஜசேகர் 47
17. நூலாசிரியர் உரை – கவிதாசன் . . . . . 48

**நூல்**

18. ஆசிரியர் . . . . . 51



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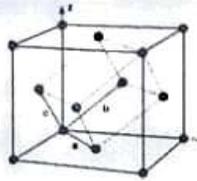
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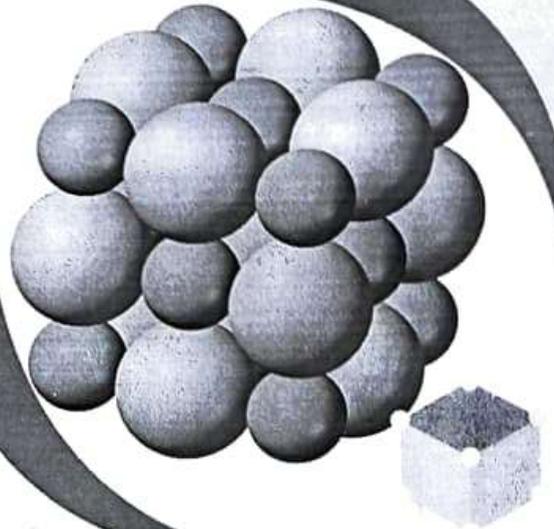
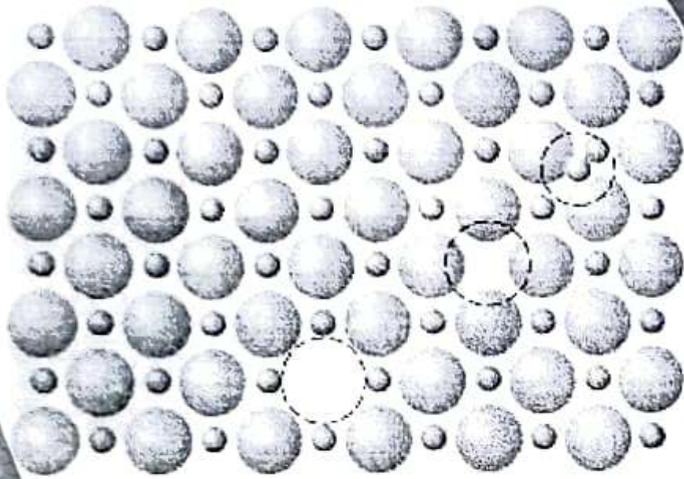
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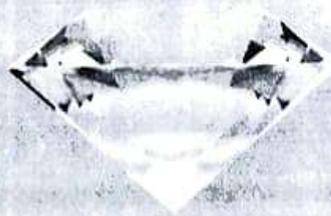
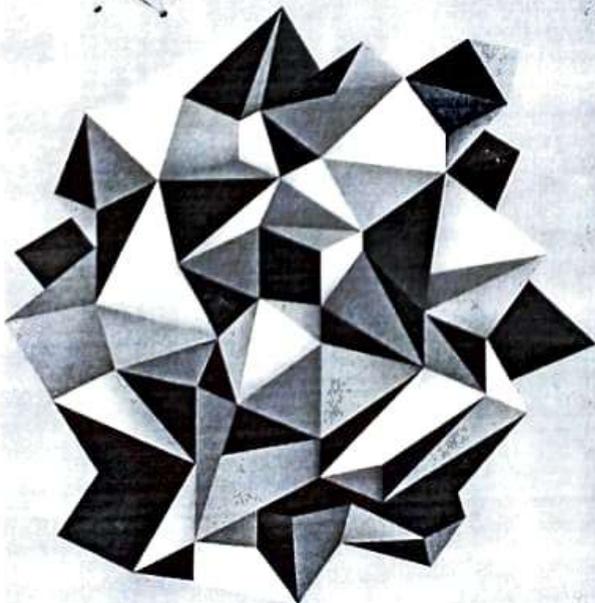
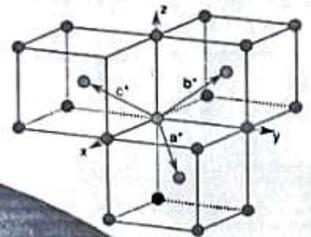


MPHS - 33

M.Sc., Physics  
Semester - III



# CONDENSED MATTER PHYSICS - I



Department of Physics  
School of Sciences  
Tamil Nadu Open University  
Chennai - 600015



**Name of the Programme: M.Sc., Physics**  
**Course Code: MPHS-33**  
**Course Title: Condensed Matter Physics - I**

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## SYLLABUS

**COURSE TITLE** : **CONDENSED MATTER PHYSICS – I**  
**COURSE CODE** : **MPHS 33**  
**COURSE CREDIT** : **4**

### COURSE OBJECTIVES

While studying the **CONDENSED MATTER PHYSICS - I**, the Learner shall be able to:

- CO 1: Learn the basic concepts of Crystal Physics
- CO 2: Study about Diffraction of Waves and Particles by Crystal
- CO 3: Discuss the various types of Crystal Imperfections
- CO 4: Define Heat Capacity of Solids and Vibrational Models
- CO 5: Study about the Theory of electrons and its applications.

### COURSE OUTCOMES

After completion of the **CONDENSED MATTER PHYSICS - I**, the Learner will be able to:

- CLO 1: Identify the importance of crystal physics to analyze the Structural features of NaCl, CsCl, Diamond, ZnS.
  - CLO 2: Recognize the analytical techniques for studying the Structural Properties of Crystal by X ray diffraction (Laue method and Rotating Crystal method).
  - CLO 3: Identify and Differentiate the Various Types of Crystal Imperfections (Frenkel and Schottky imperfections)
  - CLO 4: Describe Dulong and Petit's law and Debye Model of heat capacity.
  - CLO 5: Explain the Motion of an electron in a periodic potential by using Kronig - Penney model and classify the solids in to Metals, semiconductors and insulators
-

## **BLOCK I: CRYSTAL PHYSICS: CRYSTAL STRUCTURE**

Lattice representation - Simple symmetry operations - Bravais Lattices, Unit cell, Wigner-Seitz cell - Miller planes and spacing - Characteristics of cubic cells - Structural features of NaCl, CsCl, Diamond, ZnS - Close packing.

**Crystal Binding:** Interactions in inert gas crystals and cohesive energy - Lennard-Jones potential - Interactions in ionic crystals and Madelung energy - Covalent bonding - Heitler-London Theory - Hydrogen bonding - metallic bonding.

## **BLOCK II: DIFFRACTION OF WAVES AND PARTICLES BY CRYSTALS**

X-rays and their generation - Moseley's law - Absorption of X-rays (Classical theory) - Absorption Edge - X-ray diffraction - The Laue equations - Equivalence of Bragg and Laue equations - Interpretation of Bragg equation - Ewald construction - Reciprocal lattice - Reciprocal lattice to SC, BCC and FCC crystals- Importance properties of the Reciprocal lattice - Diffraction Intensity - The Powder method - Powder Diffractometer - The Laue method -The Rotating Crystal method - Neutron Diffraction - Electron diffraction.

## **BLOCK III: CRYSTAL IMPERFECTIONS AND ORDERED PHASES OF MATTER**

Point imperfections - Concentrations of Vacancy, Frenkel and Schottky imperfections - Line Imperfections - Burgers Vector - Presence of dislocation - surface imperfections- Polarons - Excitons.

Ordered phases of matter: Translational and orientation order - Kinds of liquid crystalline order - Quasi crystals - Superfluidity.

## **BLOCK IV: LATTICE DYNAMICS**

Theory of elastic vibrations in mono and diatomic lattices - Phonons - Dispersion relations - Phonon momentum.

## Heat Capacity

Specific heat capacity of solids – Dulong and Petit's law - Vibrational modes - Einstein model - Density of modes in one and three dimensions - Debye Model of heat capacity.

## Anharmonic Effects

Explanation for Thermal expansion, Conductivity and resistivity – Umklapp process.

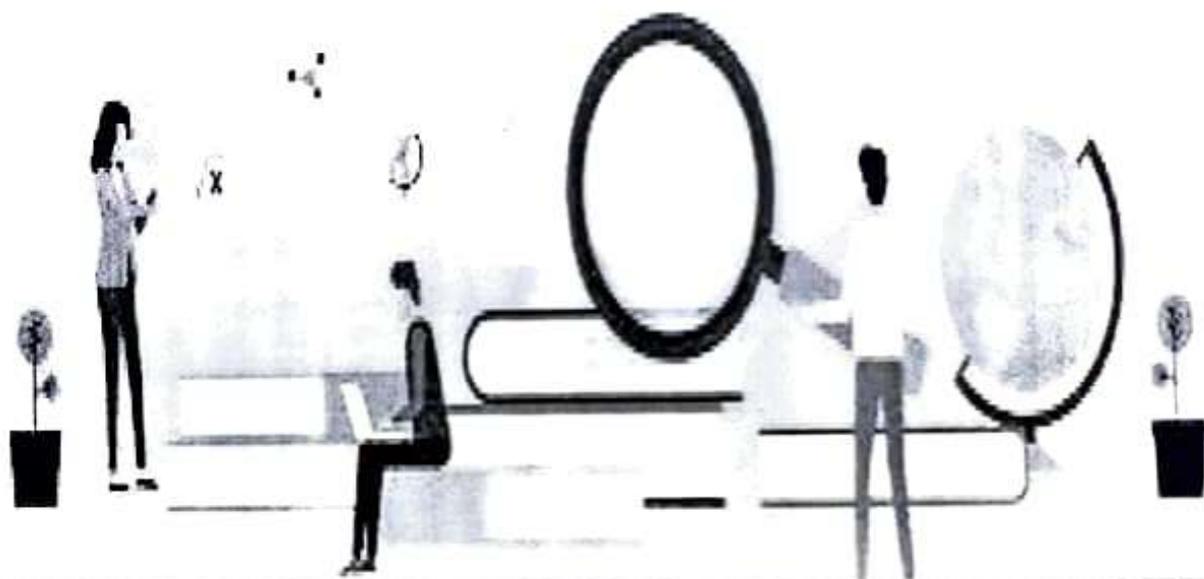
## BLOCK V: THEORY OF ELECTRONS

Energy levels and Fermi-Darac distribution for a free electron gas – Periodic boundary condition and free electron gas in three dimensions – Heat capacity of the electron gas – Ohm's law, Matthiessen's rule – Hall effect and magnetoresistance – Wiedemann – Franz law. Nearly free electron model and the origin and magnitude of energy gap – Bloch functions - Bloch theorem - Motion of an electron in a periodic potential – Kronig – Penney model - Approximate solution near a zone boundary –Metals, semiconductors and insulators – effective mass – Limitations of K-P model – Tight binding approach - Construction of Fermisurfaces: Reduced and periodic zone schemes of construction- de Haas – van Alphen effect.

## BOOKS FOR STUDY:

- 1) Charles Kittel, Introduction to Solid State Physics, 7<sup>th</sup> Edition, Wiley India Pvt. Ltd. , New Delhi, 2004.
- 2) Rita John, Solid State Physics, Tata Mc Graw Hill Publications, 2014.
- 3) M. A. Wahab, Solid State Physics – Structure and Properties of Materials. Narosa, New Delhi, 1999.
- 4) J.D. Patterson, B.C. Bailey Solid-State Physics: Introduction to the Theory, Springer Publications, 2007.
- 5) M. Ali Omar, Elementary Solid State Physics – Principles and Applications, Pearson, 1999.

# Textbook of Elements of Research Methodology



**Editor**

**Dr. C. Ramathilagam**

**Dr. S. Jagannathan**

**Author**

**Dr. R. Venkateswari**

**Dr. Parvez Alam Khan**

**Dr. Monika Sirothiya**

**Dr. J. Janaki**

**Prof. Abhra Pratip Ray**

**ISBN - 978-93-93968-08-1**

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Department of Physics,

Dwaraka Doss Goverdhan Doss Vaishnav College (Autonomous),  
Chennai- 600016, Tamilnadu.

**as an EDITOR, for her unwavering support and efforts. It has been a true honour to collaborate with her and other eminent academicians on the successful publication of "Emerging Trends in Arts, Science and Humanities (ETASH)" on February 28, 2022, with ISBN:978-93-91387-37-2.**

**This was a remarkable and significant work.**

**DATE: 02-03-2022  
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## MESSAGE FROM EDITOR - III



We are currently facing a fast change in national research and development goals. As we entered the 21st century, Emerging Trends is one of the top concerns in the area of science. This book by the Association of Global Academicians and Researchers (AGAR) entitled " Emerging Trends in Arts, Science and Humanities (ETASH)," Tamil Nadu, highlights the importance of integrating new knowledge gains through fundamental research into applied research and development programmes. A strong continuity in research and development, from the fundamental to the applied, promotes the creation of social benefits. Different writers specialising in their area provide the topic material. These chapters offer information about their studies undertaken in several pillars.

I thank my colleagues at the Association of Global Academicians and Researchers, the writers, the technical team, the review committee and everyone who helped ISBN complete this book. I hope this AGAR publications will illuminate the academics in their area.

With Regards,  
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# **BIOMOLECULES**

Laboratory Manual

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**SPRINGER NATURE Reference**

**LIVING  
EDITION**



# Encyclopedia of Green Materials

# B

## Biomedical Applications of *Enicostemma littorale* Leaves



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### Synonyms

Antidiabetic; Anti-inflammatory; Ethnomedicine; Hepatomodulatory activity; Phytomedicine; Secondary metabolites

### Definition

*Enicostemma littorale* a tropical herbaceous plant rich in secondary metabolites has anti-inflammatory, antimicrobial, antipyretic, anti-tumor, hypoglycemic, hepatoprotective, hepatomodulatory properties and great potentiality to be used as an effective drug for various ailments.

### Introduction

Phytomedicine has revolutionized the field of modern healthcare sector by occupying the prime position. The usage of pharmacologically active plant metabolites is found to be safe, affordable, and customized, i.e., catering to an

individual's personal healthcare need, thereby ensuring a holistic treatment. A major proportion of the rural population in developing countries still relies on medicinal plants to prevent or eliminate diseases.

The traditional system of medicine is defined by the World Health Organization as medical knowledge systems that developed over generations within various societies before the era of modern medicine. It encompasses the health practices, approaches, knowledge, and beliefs, incorporating plant-, animal-, and mineral-based medicines, spiritual therapies, manual techniques and exercises, applied singularly or in combination to diagnose, treat, and prevent sickness or maintain well-being. Traditional medicines include formalized aspects of folk medicine, as well as Ayurveda; Siddha; Unani; ancient Iranian, Islamic, Vietnamese, Chinese, and Korean medicine; acupuncture; and many other forms of healing practices.

According to the World Health Organization (WHO), more than 80% of the world's population relies on traditional medicine for their primary healthcare needs. The medicinal use of natural products traces back to thousands of years even before human history was recorded. Throughout the evolution, there has been remarkable importance given to the usage of natural products as medicine. In the ancient days, chewing of certain herbs to relieve pain, wrapping of leaves around wounds to improve healing, and natural products

have often been the sole means to treat diseases and injuries.

The phytoconstituents produced as a result of secondary metabolism in plants exhibit profound remedial activity in various ailments, making the medicinal plants highly indispensable (Nagendra et al. 2010).

The advent of the twenty-first century witnessed increased usage of medicinal plants as an alternative source for treating several ailments (Akhtar 2001). Though the secondary metabolites are nonessential and nonnutritive, they are very much beneficial in protecting the plants from diseases and also from its predators like insects and herbivorous animals. Many phytoconstituents with potent biological activity have been traced.

## Diversity of Medicinal Plants

India has a rich heritage of ethnomedicine and it is evident from the fact that more than 7500 species are used by diverse communities. Phytomedicine plays a major role in the modern economy. A huge proportion of people in the developing countries relies on the knowledge repository of traditional practitioners for their healthcare needs. Advancements in recent techniques backed up by history and culture has made herbal medicine occupy the prime position in the current medical arena. In addition, the high price of modern drugs has also kindled the growth of phytomedicine as an alternate avenue for a healthy life.

This entry discusses the several medicinal properties of a biologically and pharmacologically active plant *Enicostemma littorale*.

## Enicostemma littorale (E. littorale)

*Enicostemma littorale* occupies a significant position in the ethnomedical field. The phytoconstituents obtained from the plant are eco-friendly and palatable having a longer shelf life and are devoid of side effects. The leaves and roots exhibit antioxidant, anti-inflammatory, hypoglycemic,

hepatomodulatory, and many other medicinal properties justifying the usage of this plant in traditional medicine. *E. littorale* is administered for curing ailments like pyrexia (Sankaranarayanan et al. 2010), infections, appetite loss (Garad and Upadhya 2012), dyspepsia, diabetes, etc. (Gite et al. 2010).

The plant reduces blood glucose level and elevates insulin level in the serum. A remarkable improvement in maintenance of blood pressure, lipid profile, and functioning of kidney is noticed when *E. littorale* is consumed as a pill in the treatment of type II diabetes (Upadhyay and Goyal 2004). The phytochemicals are less toxic, making the plant serve as an effective medicine in healthcare industry (Murali et al. 2002).

## Nomenclature

*E. littorale* has numerous flowers in a circular arrangement with the leaf axils along the stem that gives the appearance of a wreath. Hence its name is coined from the Greek language with the three words “en,” “icos,” and “stemma” meaning “in,” “twenty,” and “wreath,” respectively (Saranya et al. 2013).

## Vernacular Names

*E. littorale* is popularly known as Nahi, Maja-Makkabooti in ayurveda. Its name in various vernacular languages are given below

Name	Language
Vellarugu	Tamil
Vallari	Malayalam
White head	English
Chikkachiraayuta	Kannada
Mamajjakah	Sanskrit
Mamejavo	Gujarati
Nagajivha	Bengali
Chotachirayata	Hindi
Nela-guli	Telugu

## Taxonomy

The taxonomic position of *Enicostemma littorale* is as follows

Kingdom:	Plantae
Subdivision:	Angiospermae
Class:	Dicotyledonae
Order:	Gentianales
Family:	Gentianaceae
Genus:	<i>Enicostemma</i>
Species:	<i>littorale</i>

## Phytogeography

*Enicostemma littorale* is widespread in South America, Africa, and Asia and grows in diverse habitats from savannas, grasslands, forests to beaches, from wet to very dry and also survives in a very saline environment.

## Morphology

*E. littorale* is a 5–30 cm tall perennial herb. The aerial parts of the plant are erect with a smooth cylindrical stem and sessile leaves, while the base is either simple or branched. The flowers are white in color with green lines arranged in clusters giving a wreath like appearance, justifying its name *Enicostemma*. The calyx tube is 1–2 mm and corolla is 3.5–6 mm in length. The stamens are found inserted above the middle of the tube, while the filaments having a double hood at the point of insertion is 1.5–2 mm in length (Gupta and Singh 2007).

## Nutritive Value

According to the nutritional analysis report of Indian Council of Medical Research, 100 g of fresh *E. littorale* contains 140 kcal energy, 7 g of protein, 0.7 g of fat, 26.5 g of carbohydrate, 4.2 g of fiber, 8.4 g of minerals, 49.9 mg of iron, 1.641 mg of calcium, and 81 mg of phosphorous (Satishkumar et al. 2009). The fresh leaves of *E. littorale* are highly nutritious and a dosage of

2 g per day is recommended for diabetic patients (Upadhyay and Goyal 2004).

## Phytoconstituents of *E. littorale*

*E. littorale* is a reservoir of phytochemicals. It is rich in minerals, amino acids, and phytochemicals like flavonoids, terpenoids, saponins, phenolic acids, and glycosides. It is quite evident from the qualitative analysis that sodium, potassium, iron, calcium, magnesium, chloride, phosphate, sulfate, silica, and carbonate are present in *E. littorale* (Tanna et al. 2010). In addition, amino acids like alanine, isoleucine, methionine, serine, threonine, valine, aspartic acid, L-glutamic acid, tyrosine, tryptophan, phenyl alanine, histidine, arginine, and proline are present in the methanolic extract of *E. littorale* (Sathishkumar et al. 2010).

The plant contains monoterpene alkaloids like enicoflavin and gentiocrucine. Apigenin, genkwanin, isovitexin, swertisin, saponarin, 5-o glucosylswertisin, and 5-o -glucosylisoswertisin were the flavonoids isolated from the alcohol extract (Ghosal et al. 1974). *E. littorale* holds great significance for the nascent isolation of verticillside, a new flavone C-glucoside. Catechins, saponins, steroids, betulin – a triterpene sapogenin and xanthenes are also present in this plant (Jahan et al. 2009). Phenolic acids like vanillic acid, syringic acid, p-hydroxy benzoic acid, protocatechuic acid, p-coumaric acid, and ferulic acid occupy a vital position in the phytochemical composition of *E. littorale*. Swertiamarin, a secoiridoid glycoside was isolated from *E. littorale* by using alcoholic extract (Leelaprakash and Mohan Dass 2012).

*E. littorale* contains bitter principle and acts as substitute for Chirata. Various parts of plant are bitter due to presence of secoiridoid glycoside swertiamarin, amarogentin, ophelic acid, gentianine, phytosterol, and tannins. n-butanol extract contains triterpenoids and unsaponifiable matter contains organic compounds like n-Hexanol, heptacosane, nanocosane; whereas non-saponifiable matter of petroleum ether extract is rich in myristic acid, stearic acid, and oleic acid. The abundance of phytochemicals paves the way

for the plant to hold a great promise in the therapeutic field.

## Biomedical Properties of *E. littorale*

### Antidiabetic Activity

*E. littorale* possesses potential antidiabetic activity. Hot aqueous extract of *E. littorale* administered to diabetic rats was found to reduce the food, water intake, and decrease the serum glucose, cholesterol, and triglyceride levels. The aqueous extract of *E. littorale* in combination with *Aegle marmelos* was found to prevent hyperinsulinemia and hyperglycemia induced by a fructose rich diet (Gohil et al. 2008). High Performance Thin Layer Chromatography studies revealed the presence of Swertiamarin as the major component in hot aqueous extract of *E. littorale*. Thus it is evident that Swertiamarin is the compound responsible for anti-diabetic activity of *E. littorale* (Vishwakarma et al. 2010).

Diabetic neuropathy develops due to poor glycemic control and oxidative stress. Administration of *E. littorale* extract for 45 days showed a marked improvement of nociception in diabetic rats. Restoration of the antioxidant enzyme levels and Na-K<sup>+</sup> ATPase activity was also observed on administering *E. littorale* extract. This affirms the prevention of oxidative stress by *E. littorale* and its usage in the treatment of diabetic neuropathy (Bhatt et al. 2009).

### Antitumor Activity

The methanolic extract of *E. littorale* holds the possibility of becoming a potential antitumor agent. Results of a study using the extract in Swiss albino mice against Dalton's ascitic lymphoma showed an enhanced peritoneal cell count that may be attributed due to the increased activation of macrophages or cytokines in the peritoneal cavity. A reversal of changes in hematological parameters was also observed after 14 days of tumor inoculation. The notable antitumor activity of *E. littorale* may be due to the presence of flavanols and alkaloids present in the methanolic extract of *E. littorale* (Kavimani and Manisenthilkumar 2000).

### Antioxidant Activity

A study on nephrotoxicity in rats induced by gentamicin showed that administration of *E. littorale* extract strengthened the antioxidant system of mitochondrial and postmitochondrial fractions and reduced the oxidative stress thereby preventing nephrotoxicity. This depicts the potent antioxidant activity of *E. littorale* (Bhatt et al. 2011).

### Anti-inflammatory Activity

The phytoconstituents present in methanolic extract of *E. littorale* show significant free radical scavenging property. This may be attributed to the remarkable anti-inflammatory activity of *E. littorale* extract and its usage in the treatment of cancer, aging, inflammation, and neurological disorders (Leelaprakash and Mohan Dass 2011).

### Antihyperlipidemic Activity

A study of hypercholesterolemic rats treated with aqueous extract of *E. littorale* showed a decrease in the activities of erythrocyte CAT, SOD, and LPO levels, liver and kidney cholesterol levels, and an increase in reduced glutathione levels. Also, the leaves and stem of *E. littorale* was found to reduce serum cholesterol level by increasing the activity of cholesterol acyl transferase (Gopal et al. 2011). Studies show that swertiamarin is a potent lipid lowering agent when compared to atorvastatin in addition to its cardioprotective and antiatherosclerotic effects (Vaidya et al. 2009).

### Hepatoprotective and Hepatomodulatory Activity

Liver is a highly sensitive organ with versatile functions in the body. Hence, injury to hepatic tissues can be fatal. Studies show that swertiamarin (Vaijanathappa et al. 2008), tannins, saponins, and flavonoids attribute to the good hepatoprotective property of aqueous extract of *E. littorale*. Also, ethanolic extract of *E. littorale* mediates hepatomodulation against oxidative stress by interfering with the generation of free radicals and reducing fat metabolism (Gupta and Singh 2007). Thus the usage of *E. littorale* in the

treatment of liver disorders in traditional medicine is justified (Rajasekaran et al. 2010).

### Antimicrobial Activity

One of the leading causes of mortality in this world is infectious diseases. The onset of epidemics and pandemics has led to the advent of many herbal drugs with antimicrobial activity. The strong antimicrobial nature of *E. littorale* has been established by many studies (Gite et al. 2010; Praveena and Sudarsanam 2011) and is attributed to the presence of terpenoid compounds. Terpenoid, lupeol, and  $\alpha$ -amyirin acetate are found to be the major contributors of the antibacterial and antifungal activity. According to a study, ethyl acetate extract was found to exhibit a remarkable antimicrobial activity than other solvents (Pillai et al. 2020). Thus *E. littorale* offers a huge promise to become a potent antimicrobial drug in the future.

### Anthelmintic Activity

A report by the WHO reveals that a substantial number of the population, around two billion people, encounters parasitic worm infections. Despite this fact, scientific research is remote in the category and only a few drugs are available to treat parasitic infections. A study using petroleum ether and ethanolic extract of *E. littorale* on *Pheretima posthuma*, Indian earthworm, states that the aerial parts of *E. littorale* has significant anthelmintic property. The time taken for paralysis and death of the worms was taken into consideration. The efficacy of ethanolic extract was found to be greater than the petroleum ether extract. The anthelmintic property of *E. littorale* is attributed to the thumping presence of polyphenolic compounds (Mishra et al. 2011).

### Antinociceptive Effect

Iridoids are a group of monoterpenoids having widespread distribution in plants and are known for their medicinal value. Swertiamarin, a secoiridoid glycoside is found abundantly in *Encostemma*. In vivo studies utilizing Swertiamarin clearly depicts its peripheral and central antinociceptive activity (Jaishree et al. 2009).

### Antiuro lithiatic Activity

The aqueous and ethanol extracts of *E. littorale* leaves exhibits good antiuro lithiatic activity. This beneficial property is attributed to the presence of several secondary metabolites present in the extracts. The antiuro lithiatic activity was found to be more significant in the aqueous extract than in ethanolic extract of *E. littorale*.

### Antipyretic and Antacid Activity

*E. littorale* possesses good antipyretic activity. The alkaloids, flavonoids, and steroids in the aqueous extract of aerial parts of the plant seem to inhibit the prostaglandin synthesis, which plays a major role in pathogenic fever. It showed good antipyretic activity on par with the standard drug paracetamol (Garad and Upadhy 2012). Also the phytoconstituents, viz., alkaloids, steroids, flavonoids, and saponins exhibit significant antacid activity and is effectively used in the treatment of dyspepsia (Roy et al. 2010).

### Conclusion

Plants, a rich source of secondary metabolites with interesting biological activities, have been used in traditional medicinal practices since pre-historic times. There are many crucial areas in medicine such as skin diseases, liver diseases, arthritis, old age-related problems, certain viral infections, and cancer where the conventional medicine is devoid of satisfactory treatment. Hence the biomedical importance of secondary metabolites produced by the plants with diverse pharmacological properties of their preparations obtainable from its seeds, leaves, and other parts has been the subject of detailed study in recent years. Herbal medicine is found to be novel, safe, and effective. Hence there is an exponential growth in the field of phytomedicine in the last decade.

*E. littorale* is a herbaceous plant that has got rich medicinal properties like anti-inflammatory, antimalarial, antimicrobial, antipyretic, antitumor, anthelmintic, hypoglycemic, antioxidant, hepatoprotective, and hepatomodulatory activities attributed by its chemical constituents. This

suggests that the plant *Enicostemma littorale* holds great promise to be used as a lead compound for designing potent drugs for many ailments. Further studies are warranted to isolate the active principles involved in the observed pharmacological effects and establish *Enicostemma littorale* as an elixir of life.

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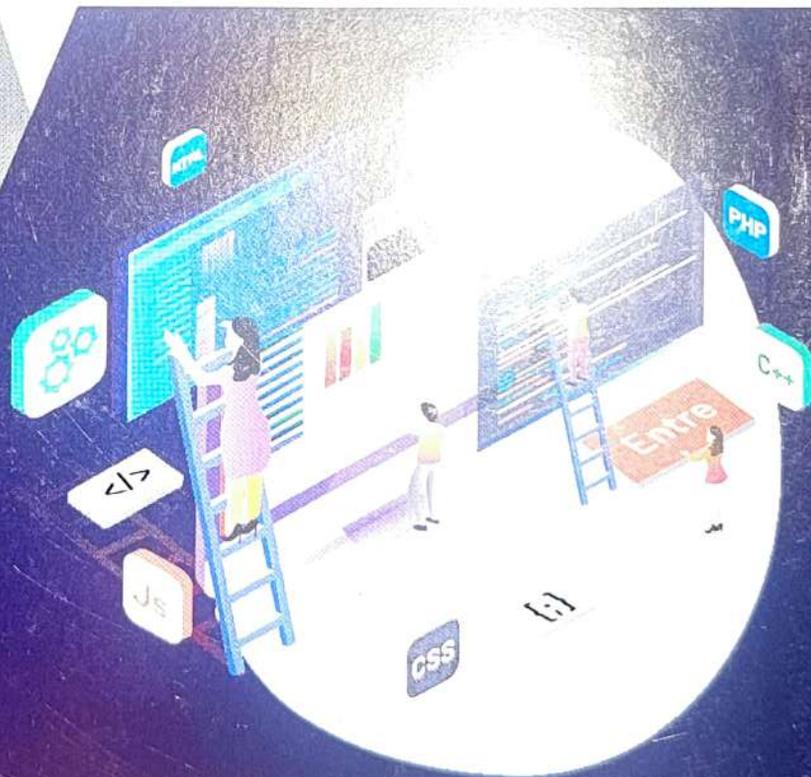
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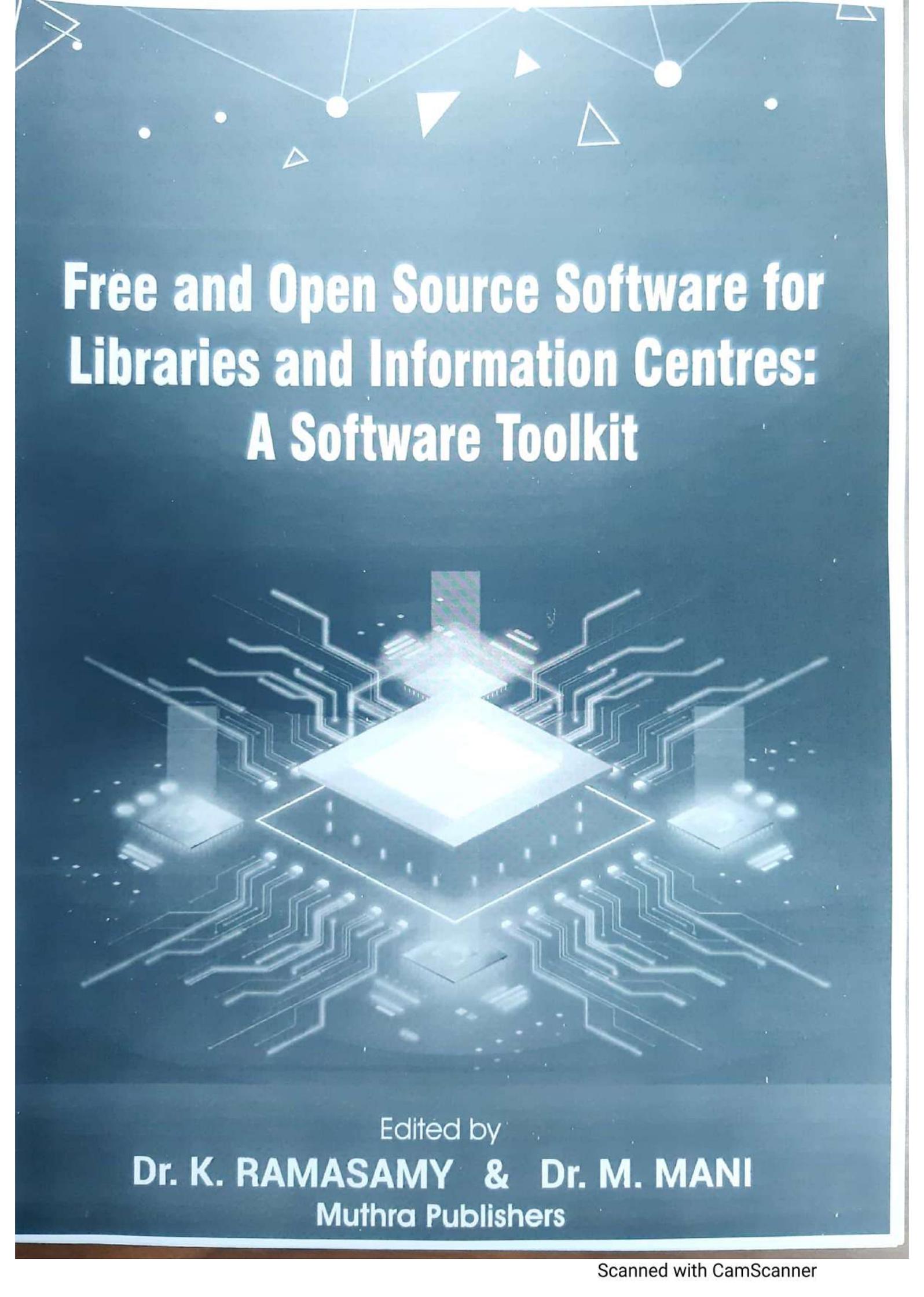
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## பொருளடக்கம்

## பக்கம்

அணிந்துரை . . . . .	05
என்னுரை . . . . .	12
1. தொல்காப்பியர் வித்திட்ட புறச் சிற்றிலக்கியக் கூறுகள் . . . . .	15
2. அறியப்படாத சிற்றிலக்கிய வகைகளுள் துயிலெடைநிலை . . . . .	27
3. பாட்டியல் நூல்களில் பண்பாட்டுக் கூறுகள் . . . . .	33
4. பாட்டியல் நூல்கள் காட்டும் நூல் அரங்கேற்ற மரபு . . . . .	40
5. கலம்பக இலக்கிய மரபு . . . . .	46
6. தமிழ் இலக்கண நூல்கள் தொகுப்பில் பன்னிரு பாட்டியல் பதிப்பு மதிப்பீடு . . . . .	54
7. பாரியூர் ஸ்ரீ கொண்டத்துக் காளியம்மை ஆற்றுப்படை நூலமைப்பும் நுவலும் செய்தியும் . . . . .	65
8. மடல் இலக்கியமும் வருணகுலாதித்தன் மடலும் . . . . .	76
9. அறுபத்து நான்கு கலைகளுள் விடுகதைக்கலை ஒரு பார்வை . . . . .	88
10. முத்துவீரியத்தில் வேற்றுமைக் கோட்பாடுகள் . . . . .	95
11. உ.வே.சா.வின் வாழ்க்கை வரலாறு (கி.வா.ஜ.வை முன் வைத்து) . . . . .	115
12. கழனியூரன் இணையத்தில் வெளியிட்ட கடிதங்கள்” – ஒரு பார்வை . . . . .	121
13. புதிய பெண்ணியக் கோட்பாட்டு அடிப்படையில் பெண்பாற் புலவர்களின் கவிதைகள் . . . . .	128
14. பெண் எழுத்தாளர்களின் பெண்ணாதிக்கம் . . . . .	134
15. அவன் பித்தனா? வழக்கு வாபஸ் நாடகங்களில் கடவுள் எதிர்ப்பும் புராண எதிர்ப்பும் . . . . .	140
16. திரு.வி.க.வும் தொழிலாளர் இயக்கமும் . . . . .	155
17. ஈர்க்கும் வணிகமும் வீணாகும் கைப்பொருளும் . . . . .	163
18. ஆசிரியப் பணியே அறப்பணி . . . . .	171

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### INTRODUCTION

A life of a learner and the teacher depended on meeting in person and talking about various issues which are happening around them. Reading makes a man into a better human being. Often it has considered a book is the best companion one would have in one's life. Sometimes, people completely forget what happens in front of them when they a read a book especially a hard copy of it. These ideas become unnatural and unimportant after the pandemic Corona in recent times. Corona has brought a million changes in various sectors where maximum transformation happened in the field of education. Most of the academicians who either teach in school or college were in the position to experience the sudden change in teaching pedagogy where offline learning was questioned and treated impossible. Most often, it is the librarians who were unable to make their readers visit the library in the physical form.

Library, a place where the learners and the teachers learn together without thinking about any barriers. It also helped everyone to refer the contents it has inside the library. The working atmosphere of a librarian was quite feasible as he or she manages the content with ease as they are aware of the works available inside their library. But, in the post-pandemic, they also made to revamp their working style and create online platforms where their

contribution and works are reaching the patrons in time. Converting the materials from physical to online was quite challenging and difficult too. Meeting the expectations of the readers was challenging than before where all the contents should be produced in online without any flaw for the readers to access easily. Content management system was created to identify the solution for every problem they shoot up in their progress.

### **Free and Open Source Software (FOSS)**

Free and Open Source Software also known as FOSS refers to the software where the content and the updates can be edited by the creator and the users. It helps the learners and the creators to modify the contents according to the needs of the users (Singh & Singh, 2018). The pandemic has made the technology viable and essential in all the aspects of the people. Many MNC companies or software developers are coming up with the new innovative tools where the learners and the teachers understand and use it for their personal and professional growth. The academic institutions also agree to use it to promote their institutions. Sometimes, they use this as repository where storing the data for the future help them easily. FOSS acts as a bridge in building their information in online where maintain the data and serving it for a long period is common. The limitations of using the software is very less because many companies allow their users to store or share information a lot by it. Maintaining the data is where most often the academic institutions fail to do. But the open source software supports this idea as primary concern of the users.

FOSS refers to both the open and the free software which consists of software available with free license to access or use. It also has the options to edit, copy and change whenever want. The source code is shared to the people which encourages everyone to enhance the design and model of the software. It does not demand copyright claim to the users. It has various benefits like less cost, enhanced security, protects the privacy of the users by controlling the hardware of the system. It has an impact on how an institutions work and how a person use these software to create, distribute and learn to develop their skills. FOSS develops to grow as a tool for various purposes like IT management, business etc. (Free and Open Source Software Development, n.d.)

### **Google Tools**

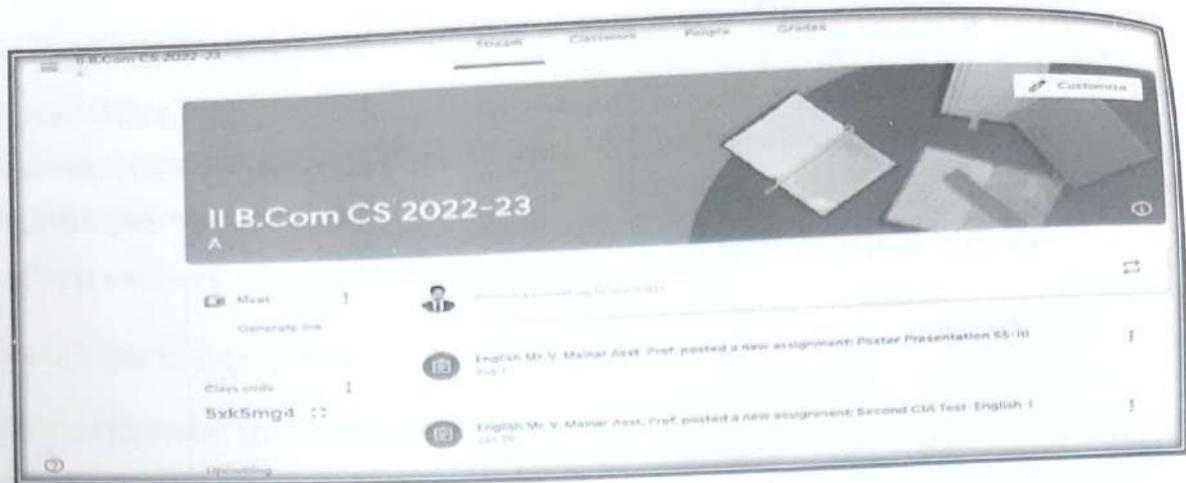
Googla has brought out a lot of colourful tools that can be effectively deployed both by the teaching faculty and the library science professionals to reach their customers in time

with right information. Library and Information Science professionals always adopt the upcoming technologies in all their possible working areas. A good number of google tools are used by the librarians both during and after pandemic period. This paper discusses about the pros and cons of three Google tools - Google Classroom, Google Forms and Google Blogger - along with their application in libraries and information centres.

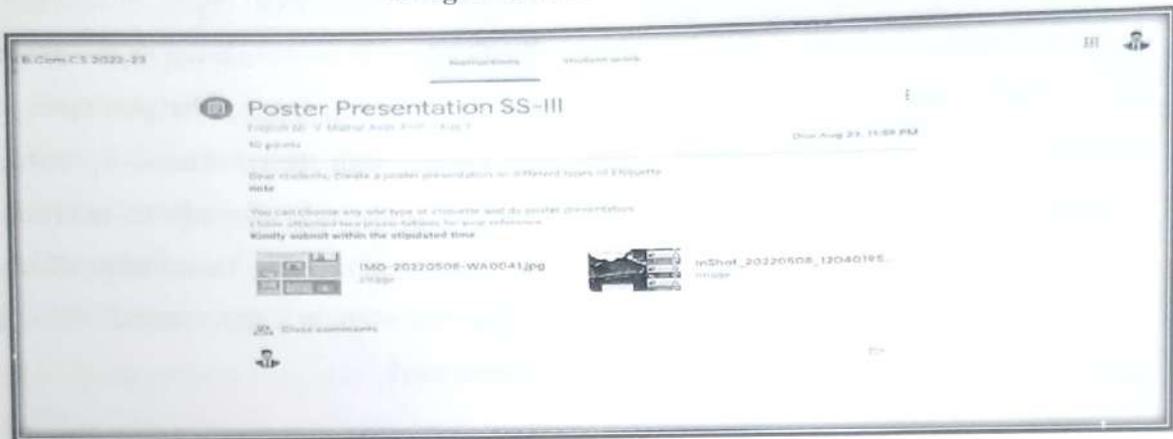
### **Google Classroom**

Google Classroom, also known as GC by the users, is created by the company called Google Inc in 2014. The company created this platform based on blended learning concept for the purpose of educational institutions. It helps the academicians to create, distribute and assess the assignments easily and effectively. The Google Classroom serves as the primary tool to share the files between the students and the teachers. During the pandemic, the academicians utilize this platform to share their content with their learners. It aimed at completing the task at short span of time. GC served as the role of mediator to create a rapport between the teachers and the learners. The intention of creating the software which is available for free of cost aimed at reaching the maximum users in a short period. Now, the global users using the platform has touched 150 million mark.

Google classroom is a software tool for sharing the files and information through a proper code or a link. It enables the readers to use it wisely and properly. As this platform is easy to use and even a new user will not find any difficulty in using it. Content creation is quite easy through this platform since it has embedded with various apps like YouTube. Storing data through Google Classroom is also feasible as the storage has been linked to the Google Drive platform. A teacher will be distributing the files through GC and the students join together on the Google Doc at a time. It makes the process of communications easy in online like a physical classroom communication (Widiyatmoko, 2021).



**Google Classroom Class view**



**Assignment and material sharing to the students**

### **Merits of Google Classroom**

Google Classroom is an online platform where a teacher and the students share their content either in the form of an assignments or a material. It has various functions to remember or recollect the ideas for the betterment of the learners. Some of GC's merits:

- GC has the option to choose the learners to join the classroom by using the code or the link which has to be shared by the teachers.
- It enables the teachers to share the materials or books as materials or as an assignment which will be notified to the learners immediately.
- GC has the provision to set deadlines for the assignment which allows the teachers and the learners to crosscheck whenever they want it.
- GC maintains the storage easily. They can store it forever with the help of Google Drive.

- Google Classroom can help the teachers to check the progress and details about the work they have done through various options.
- GC makes the users to schedule their work which will enable them to do within timelines.
- It notifies the learners to check their classroom when a new assignment is posted by the teachers.
- GC allows the teachers send back the assessment marks to the students where they can verify their marks before going for exam.
- GC enhances the performance of the students by submitting and reading the content online. ; It creates an opportunity to enrich their knowledge regularly.
- GC has the provision to share the materials where the learners can read it online or download the materials at any time which is need of the hour for the library professionals.
- Sharing the database with the students in order to prepare for the exam is flexible and everyone will have the access towards the platforms to perform it well.

### **Demerits of Google Classroom**

Google Classroom, a software tool which aids he teaching fraternity for the purpose of sharing with the students. When we think about the GC, it does not promote few things as we name it as demerits of GC:

- Google Classroom does not allow everyone to post their assessment or assignment without the permission from the creator of the classroom.
- GC allows the users to submit their assignments even after the deadline gets over where the learners may take it easily.
- GC has limitations with the submissions of materials where the learners should be identified first and allow them to join later.

### **Usage of Google Classroom in LIS**

Google Classroom has a facility to add more number of books which will enable the librarians to share the contents like catalogues, books availability, events brochure etc., directly to the users of the library. It also connected directly with the Google Drive where storing too much of data won't be a big constraint. It will be served throughout their life. The users can download the books too directly.



## Materials shared and used for the assignments by the students

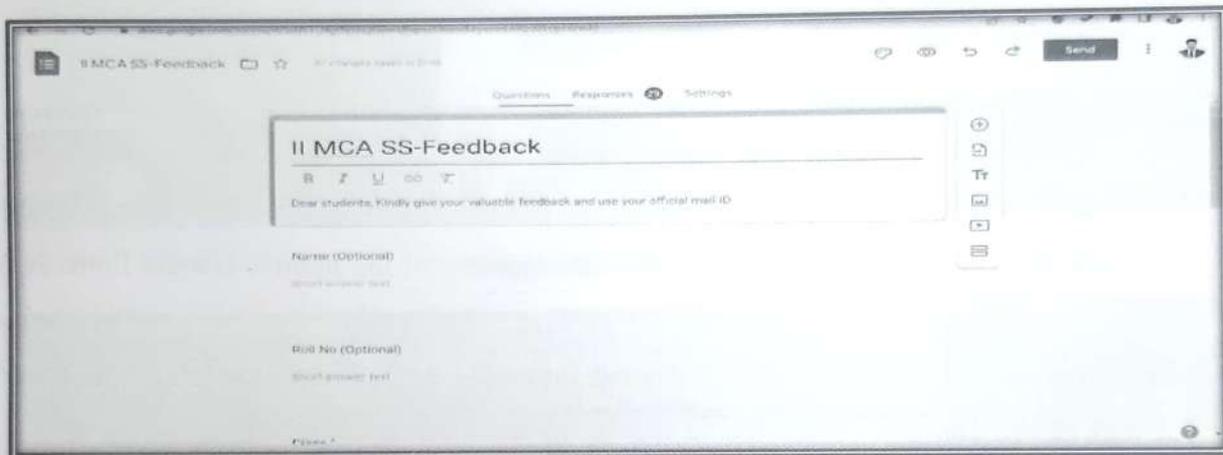
### Google Forms

Google forms is one of the important tools which has been used widely by the academicians and non-academicians for different purposes. Library and information management needs this as a tool to collect information either from the students or the faculty in the college. It has the options to get the details and sorting out is quite easy comparing with other application software. The best thing about this tool is the library professionals can edit the form based on their interest. Library and Information system includes the data which has to be maintained for further issues. Google form is an ideal FOSS software tool which enables the visitor or the office staff to enquire or make complaint or get the feedback from the users easily with customized questions. The major mobilization of this product stands in the converting the details into data through Google sheets which makes the path of using the form easier.

Google form plays the supporting role in the library and information management where collecting the data and analyzing the data is feasible and flexible for the record maintenance of the librarians. If a librarian maintains this record properly, the usage and other information related to the library will be collected easily without any struggles. As a user of Google Form, no one can deny the fact that, it has been used by many research scholars and other professionals too for making their data easy and providing the knowledge through it becomes cakewalk.



**Google Form- Home Page**



**Creation of Feedback with relevant details**

### **Merits of Google Forms**

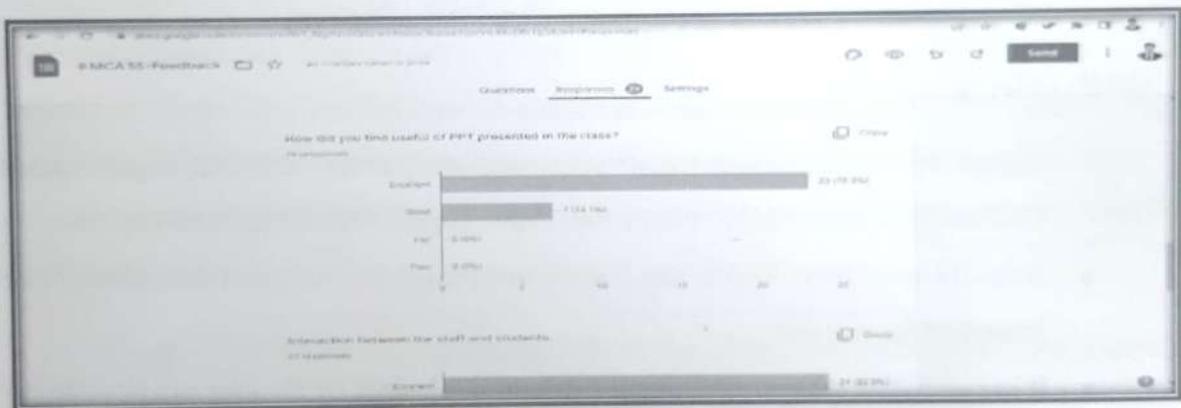
- Google Form is a tool which can be accessed everywhere, fulfils the expectation of a librarian for collecting the information about the personal and professional life.
- It has the provision of collecting it and converting it into an Excel data which is most important for any use.
- It has an option where reentering the data multiple time by the user can be restricted.
- A librarian would be glad to use this tool as it has a lot of significance for the usage of data collection and storing it for permanent purpose.
- A librarian's goal will be making the audience to read the books or materials available. Hence, he or she has to create awareness on the products of the library. Google Form has an option where you can insert your college details for the purpose of marketing.
- Sharing of E-content through google forms is feasible and convenient. So, the library professionals will be finding it interesting since it reaches the many users.

## Demerits of Google Forms

- Google Form has the option to share it everyone where the misuse of the tool may happen.
- The data collection in library and information management system needs proper and clear understanding of it. Sometimes the users may give false information using different mails.
- Users may not be able to see the advertisement within the short duration unless or until, it is necessary.

## Usage of Google Forms in LIS

A library is physical place where learners search and use books to enrich one's knowledge. Library will not be able to run without the users' record. A librarian would be expecting the data to be maintained for the development of the library. Google Form is the right tool which aids the library professional to accommodate and accumulate various information from the visitors through sending forms and getting feedbacks about the library. The data can be converted into excel as the 'forms and Excel are embedded'.



**Responses of the students**

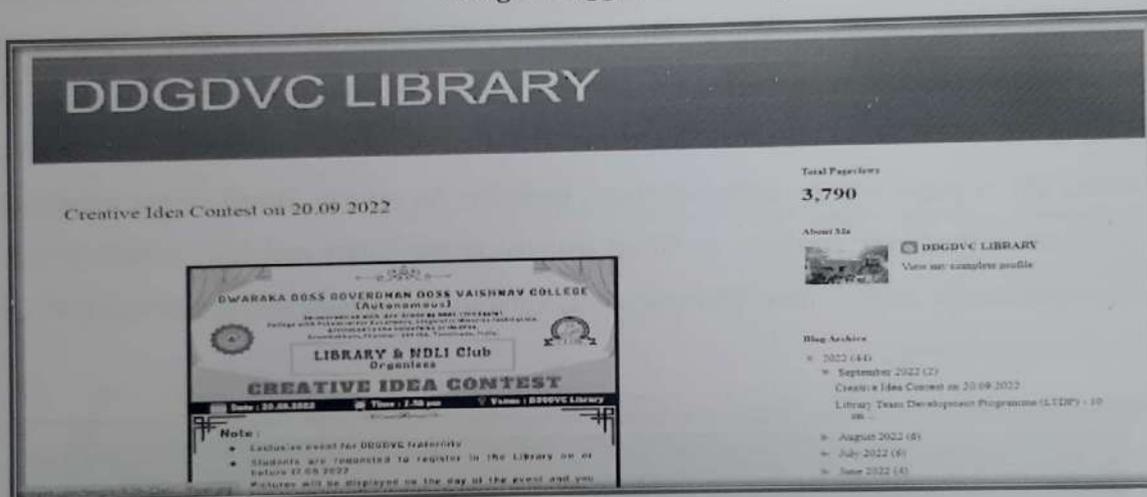
## Google Blogger

Google Blogger is another tool which helps the people to create the events or sharing information in online. Most of the learners in the present time has started to write or read blogs due to the influence of the technology. Information about the library books, events which are organized by the library, new updates on the software available on the usage of library products and so on will be updated in the blog where majority of the people would read it easily from everywhere. Many users find this tool as more effective in content creation

based on the activities of the libraries. The usage and visitor data can be monitored easily. The rapport between the librarian and the reader will increase through the readings of blogs especially the opportunity to enrich their knowledge on the books available in the library.



Google Blogger-Home Page



DDGDVC Library blog

### Merits of Google Blogger

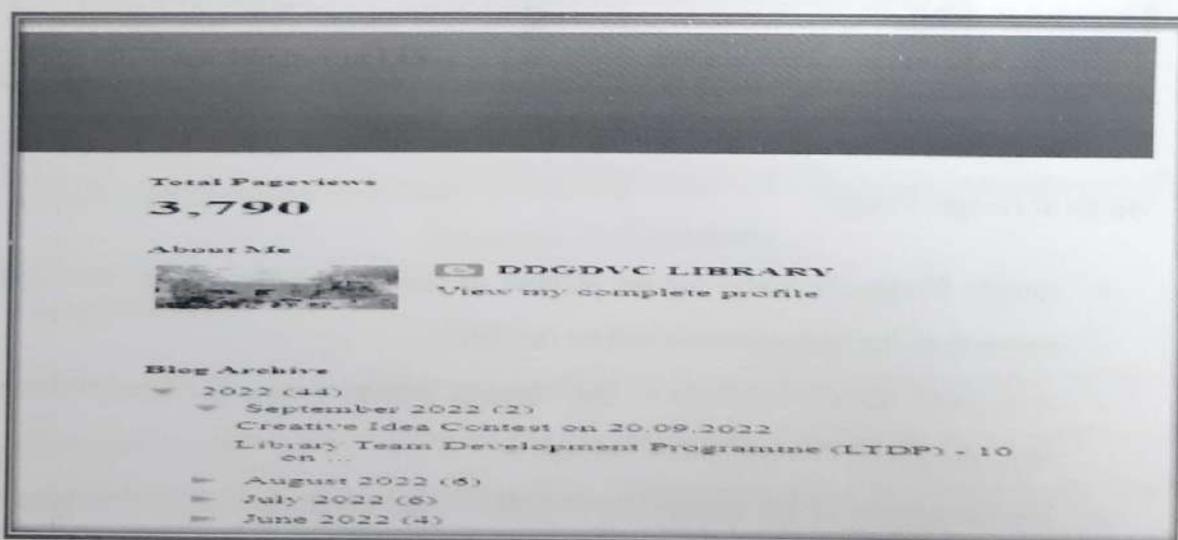
- Google Blogger is useful for the purpose of sharing activities along with reports prepared on the basis of events held by the library.
- It increases the user's interest to read more as it gives black and white information about the library through photos and reports.
- The availability of the infrastructure related to the library is visible directly to the readers that accelerate the interest in visiting it in person.

## Demerits of Google Blogger

- The users may not get the assurance to check whether the information about the library is true or not.
- Blogs may release fake news which is a kind of a question that won't be answered easily.
- Blogs may increase the reader's interest to read a lot. But, it won't guarantee the individual to update individually.
- The rapport between the user and the librarian will not have as it connects with them through online. So, there will be no opportunity to invigilate the students to use wisely.

## Usage of Google Blogger in LIS

The contemporary learners prefer the technological tools to enhance their skills where apps like Kindle creates the enthusiasm to read and understand so many things. Blog writing is also an important component a person should master it. Marketing about the usage and availability of the materials should be intimated through various platforms. Blogger will be a better aid in preparing the information and updating the readers. Based on the information provided in the blogs, a reader would get tempted to use library and other sources which is necessary in the recent times. Through blogs, a library will update and announce about their events to its readers.



Views and events details of DDGDVC library

## CONCLUSION

Technology has made every individual to use technology wisely with more creative ideas. Making the readers to use technology in accordance with their knowledge needs a lot of interest and enthusiasm. Free and Open Source Software (FOSS) is fulfilling this motto of attracting the readers as well as the library professionals to use library properly. The librarians also find these tools to enrich as well as enhance their working atmosphere to be feasible and viable for everyone to mobilize the physical and digital libraries. So, it has to be utilized in such a way that the library and information management system is properly used as it signifies the idea of promoting reading in every form to develop their language or knowledge about their areas of interest. At the same time an individual may expect the software to aid in every possible way to meet their expectations through these tools which can instigate their learning.

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## ஜோதி பதிப்பகம்

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சீ கூ சா தே நீ  
வெள ர து நீ  
வி ஐ ழ் சே வோ  
கா நே  
ஃ மி ளை மா  
2 மி ளை  
த ளை



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## பொருளடக்கம் பக்கம்

வாழ்த்துரை .....	11
கல்லூரிச் செயலர்	
மகிழ்வுரை .....	13
கல்லூரி முதல்வர்	
விளக்கும் அடும்பும் கவிதையும் .....	16
கவிஞர் பழநிபாரதி	
தொகுப்புரை .....	20
1. மழலை .....	28
ஜெ. தேவபிரியா	
2. தாய் .....	29
ஜோ. அஜய்	
3. நேசித்துப்பார்! .....	30
எம். ரோகித்	
4. ஆழ்கடலின் வெளிச்சம் .....	32
வி. வித்யாவதி	
5. கொரோனா என்னும் உயிர்க்கொல்லி .....	34
வெ. பூர்ணிமா	
6. தமிழ் .....	35
சி. மோகனா	
7. நம் உயிர் விவசாயி .....	37
அ. மொய்தீன் சமீர் பர்வேஸ்	
8. நான் கொரோனா பேசுகிறேன் .....	39
கு. கயல்விழி	
9. மழை .....	41
வே. கு. மோனிஷ் அரவிந்த்	



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குறிப்பு : கருத்துகளுக்குக் கவிதையாளர்களே பொறுப்பு.

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## பொருளடக்கம்

பக்கம்

வாழ்த்துரை .....	11
கல்லூரிச் செயலர்	
மகிழ்வுரை .....	13
கல்லூரி முதல்வர்	
விளக்கும் அடும்பும் கவிதையும் .....	16
கவிஞர் பழநிபாரதி	
தொகுப்புரை .....	20
1. மழலை .....	28
ஜெ. தேவபிரியா	
2. தாய் .....	29
ஜோ. அஜய்	
3. நேசித்துப்பார்! .....	30
எம். ரோகித்	
4. ஆழ்கடலின் வெளிச்சம் .....	32
வி. வித்யாவதி	
5. கொரோனா என்னும் உயிர்க்கொல்லி .....	34
வெ. பூர்ணிமா	
6. தமிழ் .....	35
சி. மோகனா	
7. நம் உயிர் விவசாயி .....	37
அ. மொய்தீன் சமீர் பர்வேஸ்	
8. நான் கொரோனா பேசுகிறேன் .....	39
கு. கயல்விழி	
9. மழை .....	41
வே. கு. மோனிஷ் அரவிந்த்	



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வாழ்த்துரை .....	11
கல்லூரிச் செயலர்	
மகிழ்வுரை .....	13
கல்லூரி முதல்வர்	
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வி. வித்யாவதி	
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வெ. பூர்ணிமா	
6. தமிழ் .....	35
சி. மோகனா	
7. நம் உயிர் விவசாயி .....	37
அ. மொய்தீன் சமீர் பர்வேஸ்	
8. நான் கொரோனா பேசுகிறேன் .....	39
கு. கயல்விழி	
9. மழை .....	41
வே. கு. மோனிஷ் அரவிந்த்	

# Recent Trends in Literature



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## Flash Fiction: Apparent to Revivify the Written Communication of Contemporary Learners

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### Abstract:

Communication has seen different transformations in recent times. It relates to more than spoken form. An individual should possess the expected knowledge of all language skills. Flash Fiction has become quite popular recently, especially after the introduction of Twitter, where conveying one's message within the stipulated limit creates effective communication. This fiction deals with an issue or something through short words or information. Technology as a tool surpassed human emotions with the addiction of its users for every purpose. The learners' writing skill has come down, and it needs special attention in the current times. Flash fiction serves as a bridge to build writing skills and encourages readers to enjoy the pleasures of reading stories or short works. This chapter deals with the connection between flash fiction and equipping one's communication effectively for contemporary learners and teachers.

**Keywords:** Flash Fiction, Technology learning, Communication, Writing skills, reading

### Introduction:

"Like all sweet dreams, it will be brief, but brevity makes sweetness, doesn't it?"

-Stephen King

Communication has come to a severe business of these new average days. Aiming for a good communicator with good knowledge of the subjects becomes an arduous task. Communication is not limited to the only oral or spoken form. It is a mixture of listening, speaking, reading, and writing or LSRW skills. Omission of anyone will lead to an incomprehensive way of targeting mastery over the language. From my school days to higher education in India, the vitality of acquiring written communication was insisted repeatedly. The stress on reviving the learners' written communication is imbibed in various ways, either by the teachers or through new technology. Communication has touched its pinnacle in attracting learners through new tools like social media networks. It is evident for the users to enhance their skills by the new age learners fulfilling their expectations is a tough choice.

Written communication in the Twenty-First Century is diminishing due to the influence of new-age technology intrusion in our lives. The importance of enhancing or improving one's writing goes with the individual interest and perception of everyone. The power of social networks like Twitter which instructs its users to restrict their message to

forty characters shows how people demand brevity in sharing their ideas with the people. Brevity is treated wisely, but it should allow the readers to understand the context easily. Pen and paper mode has changed into mobile or laptop with screen mode. Every individual who gets access to the internet adopts this methodology of conveying their intended messages within stipulated words. Every individual concentrates on the shortened messages, which led to a new form of literature called 'flash fiction.

Flash fiction is the favorite form of people who speak English in contemporary times. It has become famous for its brevity and ability to convey the emotions of humans most shortly. It also expresses the profound truth of the world most easily. It makes the readers connect themselves with their real-life emotions. It is a short story with few words. It has been written in new methodologies with traditional forms. It only goes a few pages, whereas the limit to restrict the content is minimal because short stories are usually written over many pages. Gaiman, N distinguishes flash fiction into sudden fiction, short-short, micro fiction, or micro stories (2022). As he described, flash fiction is the shortest form of writing a novel or idea that lets readers quickly get quick information. The readers can think creatively to understand or apply their knowledge for a better understanding of the message conveyed by the author.

### **Flash fiction and Writing skills**

Flash fiction or short fiction encourages readers to write new themes and ideas. There are a lot of positives that are entrusted to the genre in modern India. Contemporary or modern-age learners choose text which fewer paragraphs. And they want to avoid sitting and reading pages continuously. At the same time, it does not have a word limit, but people often limit themselves before writing their stories which is more or less to thousand words. Sometimes, the restriction of using words goes to just six to ten words. Before choosing this genre, the need of the hour is to attach the readers to the books or reading. Writers are often apt to this medium for their messages. It has the proper form of a story where a story should have a beginning, middle, and end, which makes this genre unique from other formats like a poem or prose poem. The purpose of this genre is to create surprise, which leads to a twist in the story. Often, the readers are made to think a lot to judge the level. Prompting the readers to deep thinking about the story's meaning is expected.

Hemingway has been credited for the birth of flash fiction often. The fables and parables treated the flash fiction of olden times as these have limited pages with many stories and subplots. The writers like Kate Chopin, Ambrose Bierce, and Walt Whitman popularized this term into the world. But Hemingway, who wrote his whole story in six to ten words, gave birth to this flash fiction genre. His words go as,

“For sale: baby shoes, never worn.” (7 Flash Fiction Stories Worth a Tiny Amount of Your Time, 2020).

The shortest words lead to the most protracted battles in the world. Many writers were inspired by these writers, which made them try this genre. A book called *Sudden Fiction*, published in the 1980s, is an anthology of stories that Robert Shepherd and James Thomas wrote. This book paved the way for others to opt for this genre. For example, Joyce Carol Oates wrote a fictional flash story lasting just four words. i.e., 'I kept myself alive' (7 Flash Fiction Stories Worth a Tiny Amount of Your Time, 2020). This text provoked many to choose this writing. Modern-age writers like Becky Robinson, Sejal Shah, Jamaica Kincaid, and many more writers wrote their works with word restrictions in mind. Frantz Kafka, famous for writing novels, attempted this work too. In his work 'Give it up,' he restricted himself to 130 words. These writers reveal that writing refers to the ability to think creatively and make others think differently. In 1992,

W.W.Norton published '*Flash Fiction*' which had seventy-two short-fiction stories. Tom Hazuka, Denise Thomas, and James Thomas edited this anthology. SmokeLong is a quarterly magazine on flash fiction stories that publish stories that are thousand or fewer.

### **Writing Flash Fiction Stories**

Flash fiction stories are fewer in the number of pages it has produced. This fiction encourages brevity with creativity. So, writing the stories may take plenty of time as it makes the writers think beyond the limits. To write these stories, one should think of every word as necessary because the count of each word is taken for applying the skills. Through words, readers would visualize and beautifies their world. The writer must be able to have more vocabulary to the writer in the shortest format. Writing skills need a lot of focus and should aim at the expected points from the beginning. Mixing too many emotions in one scene may make the work tedious. So, eliminating unwanted issues may increase the quality of the work.

Characterization in flash fiction stories needs full attention because the time to read one's account is lesser than introducing the character to the readers through writing. It should be understandable, and it leads to many creative restraints. Because too many characters spoil the stories. Adhiraj Singh, in his work '*Untitled*,' uses not more than ten characters where he uses just two characters as:

"I'm sorry, it's a girl," said the doctor to the father.

"No, I'm sorry, you're a sexist," said the girl child to the world."(7 Flash Fiction Stories That Are Worth a Tiny Amount of Your Time, 2020)

Writing is an art that everyone needs the practice to perfect it. Before writing a story, narrative techniques and other things should be formed. Flash fiction stories connect with the readers and make them think more than what they have written or read. The best element of writing flash fiction stories is it allows the readers to get surprised at the end of the day, and the readers are often going on a virtual and creative journey in their life. These stories often lead to new dimensions of the stories. So, every reader who intends to be a writer must aim at their vocabulary, which defines actual work. For example, Amy Hempel wrote the story 'Housewife' within 43 words. But she has done the writing using brevity to acquire the message. Her message made the readers understand the intention clearly. Students can quickly produce their writings through flash fiction as it does not take much time. Flash fiction makes reading understandable and approachable whenever the readers desire to read.

### **Conclusion**

Brevity needs better clarity and comprehension before writing a work. A learner who wants to write flash fiction stories must possess a good vocabulary and depth knowledge about the writings of their field concerned. It might be challenging when a writer expresses their writing within a few words. It encourages the readers to read and update themselves better. At the same time, they may have a negative impression of choosing the materials as it takes time to understand and apply their knowledge. There might be more shortcomings for contemporary learners before opting for flash fiction. Because flash refers to the short duration, but comprehension in the proper way will take a lot of work. The readers are compelled to sit and complete the reading in one go. But often, it leads to confusion than clarity in writing. Flash fiction stories should use minimal words with top stories. It may not be effective as the expected papers fail. Choosing a simple plot in the beginning may guarantee proper comprehension. The target language will be acquired within the stipulated tie when the desired input reaches the learners properly. A simple plot with less complication will make the classroom pleasurable and active for contemporary learners. Flash fiction can set a trademark in the

upcoming generation of readers where writing with sufficient creativity will reach the expected readers.

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டாக்டர் ப. செந்தில்நாதன்  
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13.	முனைவர் கே. இரா. கமலா முருகன் பழந்தமிழர் பழமொழிகளில் பழகுமுறை மருத்துவம்	
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15.	முனைவர் வி. கலாவதி மருத்துவர் கு.சிவராமனின் நோயற்ற வாழ்வுக்கான உணவு முறைகள்	
16.	முனைவர் நா.கவிதா புறநானூற்றில் மருத்துவம்	
17.	முனைவர் ஜெ.காவேரி கோபல்லகிராமம் புதினத்தில் மருத்துவ முறைகள்	
18.	சி.கீர்த்தனா நற்றிணையில் மருத்துவம்	
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23.	முனைவர் இ.சரண்யா தேவி கருவாச்சி காவியத்தில் மருத்துவம்	

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உலகில் மனிதன் நலமான வளமான வாழ்வை வாழ்வதற்கு உடல் ஆரோக்கியம் மிகமிக முக்கியம். உடல் நலமே மற்ற எல்லா நலன்களையும்விட முக்கியமான நலனாகும். “சுவர் இருந்தால்தான் சித்திரம் வரைய முடியும்” அவ்வாறே உடல்நலமாக இருந்தால்தான் இவ்வுலகில் நாம் எந்தவொன்றையும் செய்ய முடியும். நம்மைக் காத்துக் கொள்வதோடு பிறரையும் காக்கமுடியும். எனவே உடல்ஆரோக்கியத்திற்கு மிகமிக அடிப்படையானது உணவுப் பொருள்களே. அவ்வுணவுப் பொருள்களையும் அவற்றின் குணங்களையும் அவற்றால் உடலுக்கு விளையும் நன்மை தீமைகளையும் பட்டியலிடுவதே இக்கட்டுரையின் நோக்கமாகும்.

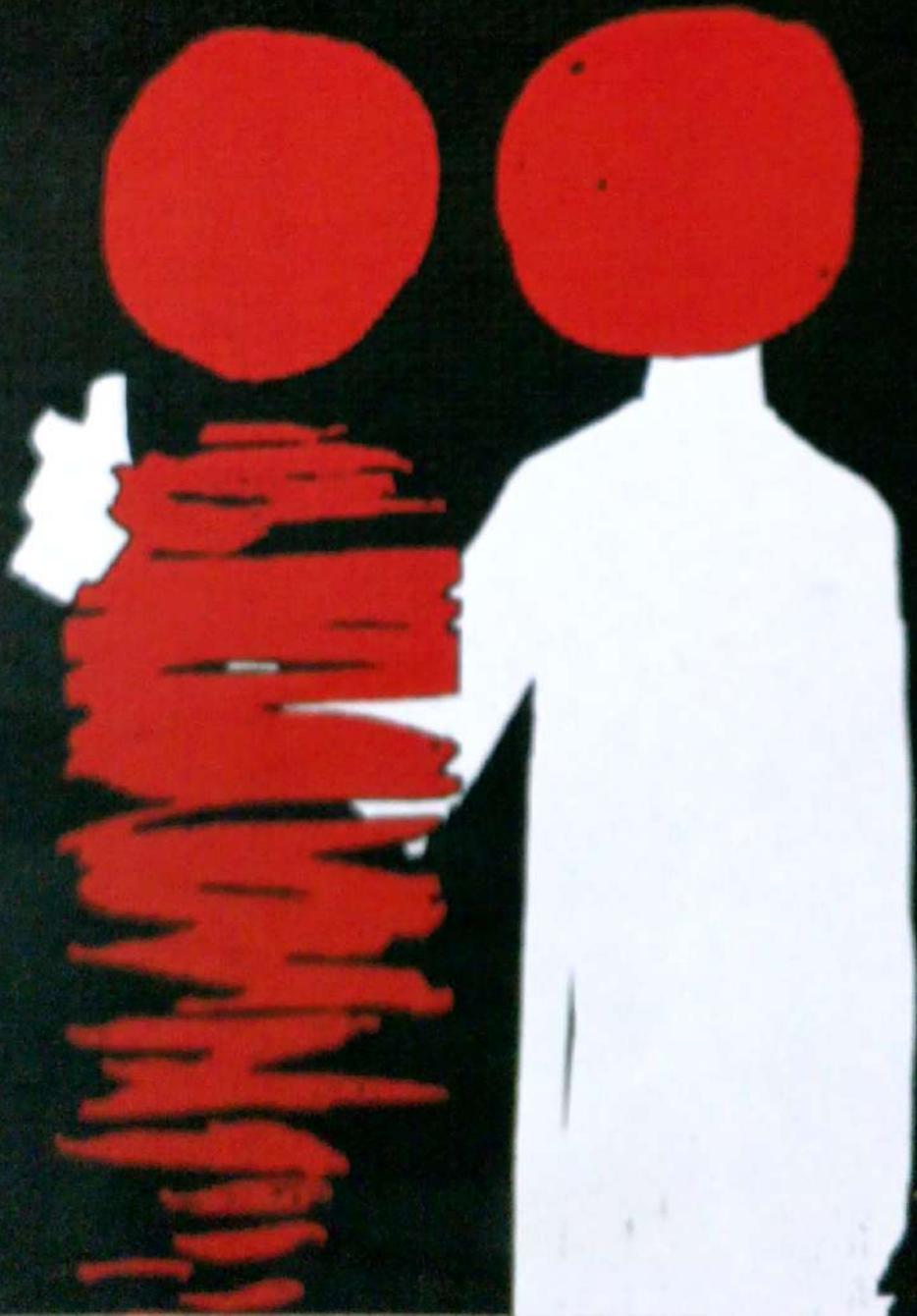
**எது உணவு?**

உடல் ஆரோக்கியத்திற்கு உண்ணும் உணவு மிக முக்கியமாக அமைகின்றது எனில் எது உணவு? என்பதையும் கட்டாயம் தெரிந்து கொள்ளவேண்டும். உண்பதற்கு ஏற்றதாக, உடலில் சென்று சிரமமில்லாமல் சீரணமாவதாக அமைந்து ஒரு வேலையைச் செய்வதற்குச் சக்தியைக் கொடுப்பதையும் உடலை வளர்ப்பதையும் நிலைபெறச் செய்வதையும் எது செய்கிறதோ அப்பொருளே உணவுப் பொருளாகும். உணவுப் பொருள்களுள் சில உடலுக்குத்

# வெள்ளையணு சிவப்பணு

இரண்டும் சேர்ந்தால்

கு.சுதாகர்



# வெள்ளையனு சீவப்பனு

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