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**OPPORTUNITIES AND CHALLENGES OF EDUCATION INDUSTRY**

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**ABSTRACT**

*India holds an important place in the global education industry. India has one of the largest networks of higher education institutions in the world. However, there is still a lot of potential for further development in the education system. Moreover, the aim of the Government to raise its current gross enrolment ratio to 30% by 2020 will also boost the growth of distance education in India.*

*The world has realized that the economic success of the states is directly determined by their education systems. Education is a Nation's Strength. A developed nation is inevitably an educated nation. Indian higher education system is the third largest in the world, next to the United States and China. Since independence, India as a developing nation is contentiously progressing in the education field.*

*Although there have been lot of challenges to education system of India but equally have lot of opportunities to overcome these challenges and to make higher education system much better. It needs greater transparency and accountability, the role of colleges and universities in the new millennium, and emerging scientific research on how people learn is of utmost important. India need well skilled and highly educated people who can drive our economy forward.*

*India provides highly skilled people to other countries therefore; it is very easy for India to transfer our country from a developing nation to a developed nation. The current study aims to highlight the challenges and to point out the opportunities in Education system in India*

*Keywords: Education, Opportunities, Challenges, Colleges, Universities*

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**“INRODUCTION TO INDIAN EDUCATION INDUSTRY”**

*“Education is the most powerful weapon which you can use to change the world” – Nelson Mandela.*

India has the world's largest population of about 500 million in the age bracket of 5-24 years, which provides a great opportunity for the education sector. The education sector in India was estimated at US\$ 91.7 billion in FY18 and is expected to reach US\$ 101.1 billion in FY19. Number of colleges and universities in India reached 39,931 and 993, respectively, in FY19. India had 37.4 million students enrolled in higher education in FY19. Gross Enrolment Ratio in higher education reached 26.3% in FY19.

In 2020-21, there were 9,700 total AICTE approved institutes. Of the total, there were 4,100 undergraduate, 4,951 postgraduate and 4,514 diploma courses in AICTE approved institutes. The country has become the second largest market for E-learning after the US. The sector is expected to reach US\$ 1.96 billion by 2021 with around 9.5 million users. In India, the online education market is forecast to reach ~US\$ 8.6 billion by 2026.

**NEW EDUCATION POLICY-2020**

The National Education Policy 2020 (NEP 2020), which was approved by the Union Cabinet of India on 29 July 2020, outlines the vision of India's new education system. The new policy replaces the previous National Policy on Education, 1986. The policy is a comprehensive framework for elementary education to higher education as well as vocational training in both rural and urban India. The policy aims to transform India's education system by 2021.

Shortly after the release of the policy, the government clarified that no one will be forced to study any particular language and that the medium of instruction will not be shifted from English to any regional language. The language policy in NEP is a broad *guideline* and *advisory* in nature; and it is up to the states, institutions, and schools to decide on the implementation. Education in India is a Concurrent List subject.

**HIGHLIGHTS OF NEW EDUCATION POLICY-2020**

- i. Ensuring Universal Access at All Levels of schooling from pre-primary school to Grade 12;
- ii. Ensuring quality early childhood care and education for all children between 3-6 years;
- iii. New Curricular and Pedagogical Structure (5+3+3+4);
- iv. No hard separations between arts and sciences, between curricular and extra-curricular activities, between vocational and academic streams;

- v. Establishing National Mission on Foundational Literacy and Numeracy;
- vi. Robust and transparent processes for recruitment of teachers and merit-based performance;
- vii. Ensuring availability of all resources through school complexes and clusters;
- viii. Setting up of State School Standards Authority (SSSA);
- ix. Exposure of vocational education in school and higher education system;
- x. Increasing GER in higher education to 50%;

**PROBLEMS FACED IN THE PROGRESS OF EDUCATION IN INDIA**

Despite our best efforts, our educational development still remains at a low level. The following are the main problems faced in the progress of education:

**1. Lack of funds:**

The lack of sufficient funds is the main problem in the development of education. Outlay for education in Five Year Plans has been decreasing. Due to insufficient funds most educational institutions lack infrastructure, science equipment and libraries etc. Due to this reason, desired results cannot be achieved.

**2. Expensive higher education:**

University, professional and technical education has become costly in India. Fee structure of technical and professional institutes like IIM's is quite high IIM's charge Rs. 2 lakh per semester for MBA classes. It is beyond the reach of common man. Privatization of higher education has led to the growth of profit hungry entrepreneurs. Now a day's higher education is much costly affair.

**3. Neglect of Indian languages:**

The medium of instruction particularly in science subjects is English. So rural students who are not well versed in English, cannot study science properly in English. They suffer a lot; Indian languages are still under developed. Standard publications are not available in Indian language.

**4. Problem of Brain drain:**

When intelligent, talented and deserving candidates do not get suitable jobs in the country, they prefer to go abroad for seeking jobs. So, our country is deprived of good talent. This phenomenon is called 'Brain drain'.

**5. Mass illiteracy:**

Despite constitutional directives and economic planning, we are not able to achieve cent percent literacy. Even now 35 percent people remain illiterate. In India, the number of illiterates is almost one-third of the total illiterates in the world. Advanced countries are 100% literate; the position in India is quite dismal.

**5 THINGS TO EXPECT FROM EDUCATION SECTOR IN 2021**

The Year 2020 saw disruption in the global education system like no other year in our living memory. COVID-19 created a plethora of problems but also brought new opportunities and opened doors to innovation in the Education Sector. Let's take a look at some of the emerging trends which will shape education in the year 2021.

**1. Education technology**

Digital platforms came to the rescue as schools migrated to online learning as the new way of teaching-learning due to the pandemic. A combination of synchronous and asynchronous methodologies using digital platforms and video-assisted learning has made online learning fun and collaborative for learners faced with challenging times and this trend is likely to continue ruling in 2021.

**2. Personalised learning**

Due to remote learning, students are now learning individually. This has led to increased instances of personalized learning allowing educators to customize and personalize learning basis the needs of each student.

**3. Hybrid schooling**

Hybrid schooling provides an opportunity to strike a balance between online learning and traditional classroom learning, thus making it more interesting and innovative. This fast-growing trend in education seems to be in tandem with the evolving situation across the globe.

**4. Project-based learning**

Although 2021 will see schools opening physically, flipped classroom methodology will come in handy in imparting PBL wherein the students work individually on a project and then brainstorm and ideate either in small groups in a classroom or during online learning.

### 5. Professional development of teachers

COVID -19 saw teachers stepping up their game and adapting to newer ways of imparting education by embracing technology. The learning curve has been pretty steep for teachers across the globe. COVID -19 crises has stirred transformation in the education system and this is just the beginning

### OBJECTIVES OF THE STUDY

- To have a detailed study about the Indian Education sector
- To find out the awareness of New Education Policy of 2020
- To understand the challenges of Education system in India
- To find out the opportunities of Education sector

### RESEARCH AND METHODOLOGY OF STUDY

#### Primary Data

- Data is collected through questionnaire with the help of Google forms.

#### Secondary Data

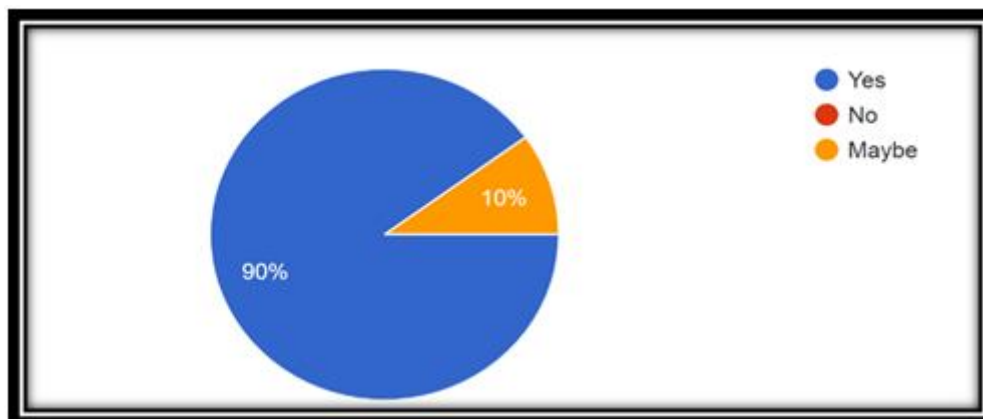
- Information is collected from various internet sites.

### LIMITATION OF STUDY

- The study is subject to the limitation of area.
- The study is based both on secondary & primary data, still keen Observations and interactions is lacking.

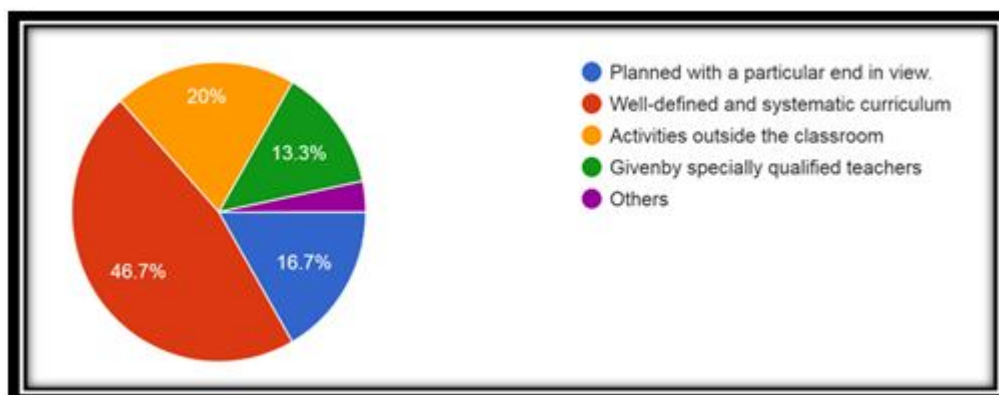
### DATA ANALYSIS AND INTERPRETATION

#### 1. Awareness of New Education Policy of 2020



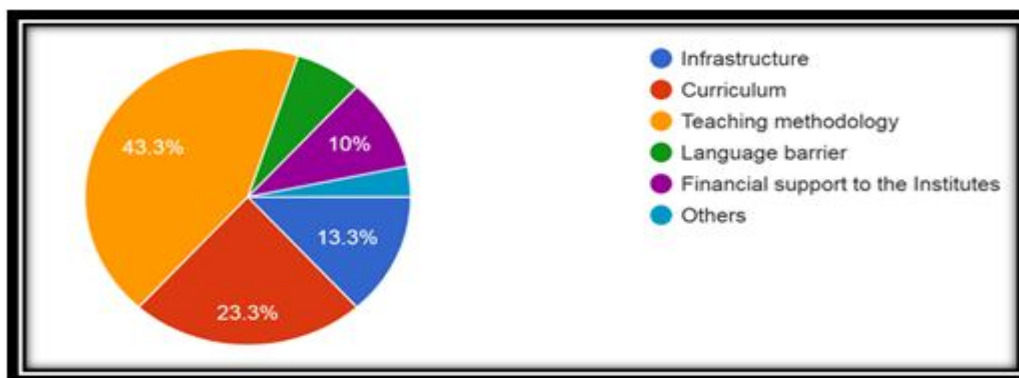
**ANALYSIS-** Most of the Respondents are aware about the New Education policy 2020 and how it is beneficial for the Indian Education system at large.

#### 2. The vital characteristics of education industry.



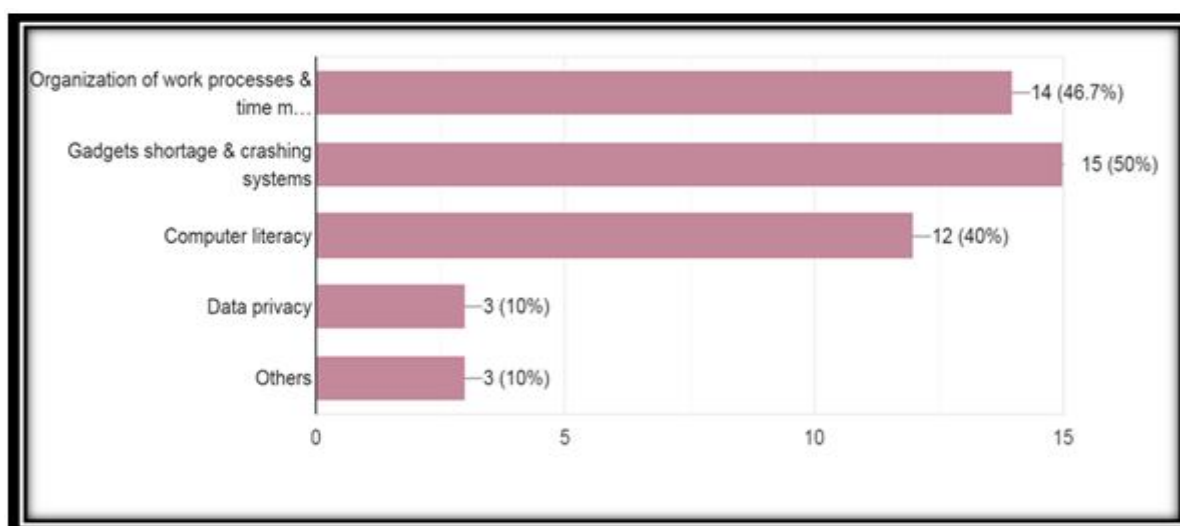
**ANALYSIS-** According to the survey done it is clear almost 46.7% of the respondents were of the view that Well-defined and systematic curriculum should be the most important characteristic of the Education industry. While 20% of the respondents believed that Activities outside the classroom should be given more priority.

### 3. The most common challenge faced by the Indian education industry at large.



**ANALYSIS-** The most common challenge that almost 43.3% respondents agreed to is the Teaching methodology and 23.3% of the respondents pointed out at the Curriculum is a huge issue while 2% were of the view that Language barrier is also a challenge that hampers the education system of the nation.

### 4. The Biggest Challenge faced in E-Learning during COVID-19.



**ANALYSIS-** Almost 50% of the respondents faced the same problem of Gadget shortage and crashing systems, while 46.7% of them had the issue with Time management and 40% of the respondents pointed out the issue of Computer Literacy in the country.

### FINDINGS & SUGGESTION

1. More and more awareness should be created about the New Education Policy of 2020 at the Grassroots level.
2. The changes in Education system will help students to develop scientific temper from a young age.
3. Infrastructure, Curriculum, Teaching methodology, Language barrier and financial support to the Institutes are common challenges that our Education system is facing today we need to work hard on all of this.
4. Education is the first step for people to gain the knowledge, critical thinking, empowerment and skills they need to make this world a better place.
5. Developing Problem-solving Skills makes Education an important part of our lives.

### CONCLUSION

Among many economic sectors, the education sector is undergoing a tectonic shift right now. The speed of these closures and the rapid move to distance learning has allowed inapt time for planning or reflection on both the potential risks to safeguard against and the inherent opportunities to leverage.

Institutions and students alike are under pressure to not lose academic time and re-invent their teaching-learning in the only possible way – go completely online. With every crisis comes deep challenges and opportunities for transformation- past education crises have shown that it is possible to build back better. What several futurists and education technologists have been forecasting for long, is now happening.

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Needless to say, the pandemic has transformed the centuries-old, chalk–talk teaching model to one driven by technology. This disruption in the delivery of education is pushing policymakers to figure out how to drive engagement at scale while ensuring inclusive e-learning solutions and tackling the digital divide. It is time for the Indian education system to reflect and proactively respond to the challenges and shoulder their responsibilities at such times to demonstrate their commitment to society.

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**AN ANALYSIS OF THE IMPACT OF WORK FROM HOME (WFH) DURING COVID-19 ON WORK AND LIFE DOMAINS**

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**Abstract**

*The outbreak of corona virus diseases (COVID-19) has been substantially influencing the life and living of people across the world, especially after the declaration of a global pandemic by the World Health Organization in the second week of March 2020. This unprecedented experience of 'home quarantine' under lockdown with the uncertainty of academic and professional career has multifaceted impact on the mental health of individuals. The ongoing COVID-19 pandemic is creating a psycho-emotional chaotic situation as countries have been reporting a sharp rise of mental health problems, including anxiety, depression, stress, sleep disorders as well as fear. With the outbreak of the corona virus (COVID-19) pandemic, WFH arrangements are implemented on a voluntary basis between employers and workers, often accompanied by a signed agreement setting out terms and conditions. In the current situation, however, WFH has been mandated in many parts of the world as a temporary public health measure.*

**Keywords:** COVID-19, WFH, Pandemic, Lockdown, Life.

**Statement of the problem:**

*The current review aims to shed a more realistic light on the research in this field by critically examining the impact of WFH during Covid-19 on work and life of individuals.*

**Scope of the study:**

*The scope of this research is to examine the impact of WFH during Covid-19 on work and life domains.*

**Objectives of the study:**

*The aims of this study are:*

- 1. The multiple factors involved in influencing home workers' well-being and productivity.*
- 2. Employees' level of mental health and well-being.*
- 3. The strategies organizations and individuals adopt to cope with working from home.*

**Hypothesis:**

*Ho: Work from home does not have a positive impact on work and life. .*

*H1: Work from home has a positive impact on work and life.*

**Research Methodology:**

*The study is carried out with secondary data. Secondary data collected from articles, journals, websites etc. has been used in this research paper.*

**Significance of the study:**

*Results of the study might assist practitioners at other institutions to implement work from home effectively and to be able to enhance employee productivity and motivation.*

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**INTRODUCTION**

The novel coronavirus (COVID-19), a pandemic sweeping across the globe, has challenged society in ways once considered unimaginable, forcing people to reconsider a wide variety of practices, from work, to leisure, to basic travel and daily tasks. Not only has this had individual impacts, but it has also impacted countries as a whole from an economic standpoint, bringing an array of economic sectors to a complete standstill. The pandemic sweeping the world, COVID-19, has rendered a large proportion of the workforce unable to commute to work, as to mitigate the spread of the virus. This has resulted in both employers and employees seeking alternative work arrangements. Due to the pandemic, most if not all workers experienced Work From Home (WFH). However, this current situation provides unique insight into how well working from home works, and may play a vital role in future policies that reshape the current structure of working hours, possibly allowing for more flexibility. COVID-19 forced a decision upon people, and with the world having to adapt quickly, many businesses opted to try WFH. The WFH practices have been employed widely, as can be seen in the U.S., where studies show in May 2020, 35.2% of the workforce worked from home, an increase from 8.2% in February 2020. Furthermore, 71.7% of workers that WFH found that they could work effectively (Bick, Blandin, and

Mertens 2020). According to a survey of 720 respondents across India, 54% love working from home and 56% believe their productivity has increased by working from home. Around 34% respondents, who said they like working from home, are also willing to take a 10% pay cut if companies allow them to work from home permanently, revealed Mavericks India's report — Covid-19 and Beyond: An Evolving Perspective. However, the report also states that 56% of the respondents said they were struggling to find a work-life balance.

#### **MERITS OF WORK FROM HOME:**

With increasing numbers of employees working from home, there are a number of advantages like:

- **Flexibility and agility** - Home working enables more agility and flexibility in working arrangements. With employees no longer tied to an office, they may be better placed and more willing to work flexible hours such as earlier or later in the day or even at weekends.
- **Improved employee retention** - Home working can help retain employees as the flexibility of home working can help them meet childcare needs, reduce their commute and enable them to fit their work around their personal life. Being allowed to work from home, staff will also feel increased levels of trust from their employer, which can contribute greatly to staff loyalty.
- **Attracts new talent** - Home working can be offered as an incentive to attract new talents to the organisation. Offering the option to work from home will give the organisation an advantage in the job market over competitors that don't offer home working as an option to their staff.
- **Increased productivity** - Working from home allows for a quieter environment that can facilitate more focused work. Employees can also work longer hours as they can also use their time saved from commuting to start work earlier, later or both.
- **Increased staff motivation** - By working from home, staff will feel more trusted by their employer as the working relationship isn't as closely monitored and employees are allowed a degree of autonomy to get on with their work. Staff will also be happier developing a home working routine that suits them better and this can contribute towards them feeling more motivated to give their best.
- **Improved staff health and wellbeing** - Working from home eliminates the need for a commute to work that can be stressful to employees. Time savings such as this also enables staff to get extra health benefits such as additional sleep, spending more time with family, exercising or preparing healthier meals.
- **Financial benefits** - Savings on office space, office supplies, utility bills and other facilities.
- **Better work-life balance** - Working from home can help employees improve their work-life balance eg. staff that would have had to commute will now be able to use that time for themselves giving the basis for a better work-life balance. Staff are also able to fit in household chores around their working day giving them more free time in the evenings.
- **Technology makes it easier** - The internet has made it possible for staff to be continually connected to the office. Tools such as Skype, Google Meet, Zoom etc. have made communication between colleagues and teams much easier and at times can lead to more efficient and effective meetings.
- **Less sickness absences** – Staff are more likely to feel happier and more energised working from home and therefore less chance of their immune system being negatively impacted by burnout. Also the fact that employees are working in isolation there is less chance of infections spreading as would be the case within an office environment.
- **Less need for regular holidays** - Working from home can feel like a break from the office even though staff are still working. Working from home staff will feel more energised and will be able to spend more time with their family and therefore will not feel the need to take as much leave.

#### **DEMERITS OF WORK FROM HOME:**

**There is yet another side of the coin. The following are the disadvantages of working from home:**

- **Working from home doesn't suit everyone** - Working from home might not be suitable to everyone's personality or ability. Some staff may prefer personal interaction with colleagues and also find face-to-face guidance with their manager extremely beneficial in helping them complete tasks and achieve their goals. Working from home may also not fit in with everyone's home-life eg some people may have young children that may be unaware of boundaries and cause interruptions during the working day. Others may not have the physical space required to create a suitable dedicated working area.

- **Staff feeling isolated** - Individuals working from home may feel a disconnect from their colleagues and organisation as a whole that an office environment naturally allows.
- **Difficulty monitoring performance** - There could be difficulty managing home workers and monitoring their performance. Different personalities may also respond to monitoring with varying degrees of positivity.
- **Home distractions** - Although home working removes the distractions that may occur in the office if a worker doesn't have a suitably quiet dedicated working space at home they may get easily distracted by household noises, young kids at home or due to other members of their household.
- **Potential burnout** - where an office provides a clear physical distinction between work and home life, working at home can lead to staff forgetting to differentiate between work-life and home-life. This may lead to employees finding it difficult to know when to switch off from work leading to longer hours, increased stress and inevitable burnout.
- **Information security risk** - Information security problems are more likely to occur when staff are working from home. There is increased risk with laptops being taken home and the need for staff to access servers remotely.
- **Negative impact on mental health** - The switch to working from home may have a negative impact on the worker's mental health if they are unable to find a routine that works for them, are struggling to separate work and home life or are feeling isolated.
- **Decreased staff morale** - It can be harder to maintain team spirit when employees are working at home on their own.
- **Not all jobs suit home working** - Working from home suits some jobs better than others. Equally, working from home suits some personality types but not others. Some people may prefer colleague contact by face-to-face communication.
- **Poor broadband speeds** - Employees may be not be able to access broadband speeds that enable them to do their job effectively eg. rural broadband is often very slow.

## WAYS TO EFFECTIVELY MANAGE WORK FROM HOME AND PERSONAL LIFE:

### 1. Set your working hours

Flexible working hours are a boon, but it's important that you fix your working hours that reflect your daily schedule at the office. You can fix hours that work the best for you but make sure that you stick with them. If you like working in the morning, then get an early start. If you're one of those nocturnal creatures, you can work late into the night. Knowing when you're at your peak and most comfortable is crucial for getting the most out of your time. Having a fixed timetable is helpful, but you should adhere to it.

### 2. Take breaks

You may have limited time for breaks when working in an office, but all that changes when you work from home. It is important that you take a break every now and then, but the key is to have a fixed routine of work and rest. Taking a 5-10 minute break every two or three is a good way to keep yourself energized and give your body some relief. Find a pattern that works best for you.

### 3. Set goals

Having a plan for your day ahead will go a long way. Figuring out what you want to accomplish beforehand will lead to an efficient day, with the least amount of time spent wondering what to do next. You can always change your schedule if you really need to, but it's good to have a plan and commit to it.

### 4. Sync up with your team

You may be a morning person, but your teammates may not be. Being out of sync with your team can be stressful. Pick your working hours that are comfortable for everyone and keep each other informed about your routine. This will ensure that everyone knows when a good time will be to connect for a call or to assign a task. A working schedule that closely resembles your regular shift hours will be the easiest to adapt to as everyone is already accustomed to that routine. Communication is key to achieve that sync with your team members.

### 5. Create a workspace

Dedicate a specific area of the house or your room as your workplace. If you prefer working on a desk, you can get it done on the dining table or in the drawing-room. Maintaining good posture is important and something

that is easily forgotten when you're in bed. Remember, it's about being comfortable and working the way that suits you best.

#### **6. Dependent care and other family responsibilities**

The issue of child care and other personal obligations that may impact WFH should be addressed between the concerned manager and worker. It is, however, important to stress that while the company may be able to extend a certain degree of flexibility, workers must make arrangements for dependent care and family responsibilities to enable WFH. Workers need to manage and adapt to the situation and ensure the essential responsibilities of the job are fulfilled.

#### **7. Stay nourished, hydrated and meditate**

It can be easy to get sucked into our work and completely forget to eat and drink water.

But especially during such a stressful time, keeping our bodies in working order is how we keep our immune systems supported and our depression at bay. Meditation can give you a sense of balance and calm, which may provide you with inner peace and help improve overall feelings of well-being.

#### **8. Pursue your hobbies or involve yourself in some activities**

Your best ally is to find the opportunity in the difficulty during an uncontrollable situation instead of the difficulty in the opportunity. Take advantage of this restrictive time to clear clutter out of your basement, pull weeds in the garden or get caught up on fun hobbies you've neglected for a while.

### **CONCLUSION**

With no signs of Covid-19 pandemic abating any soon, it is only natural that people are struggling with mental health. The lockdown has left people feeling jittery, fearful, anxious, depressed and stressed due to the uncertainty that is looming in the air. The stigma attached to corona virus infection only adds to the feeling of loneliness and isolation that many have fallen prey to. Thus, we are living in times where there's a dire need to pay attention to mental health and well being. Whether one has been based in their home office long before the pandemic broke out followed by the guidelines or they're brand new to working remotely from the confines of their house, it's a no-brainer that there are specific mental health challenges that can arise when doing so. To overcome these issues, companies can make a few practical changes to the hybrid workplace. Introducing policies like requiring a ten-minute break between meetings, and implementing meeting-free days each month can help reduce the psychological pressure of being constantly online. However, setting boundaries by individuals remains an integral part of WFH arrangements, and positive outcomes of WFH can only be ensured with the establishment of clear work-life boundaries which limit the negative consequences of spill over of work into home-time and minimise work-family conflicts, reduce stress and help remain overall positive.

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## AN OVERVIEW OF CLOUD COMPUTING IN HAZARDS AND CATASTROPHE MANAGEMENT

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**ABSTRACT**

Disaster administration demands a near immediate information dissemination so that the emergency services can be provided people at time. Effective reply to disasters requires assessing information prior to, during, and after potentially catastrophic events, as well as beginning activities that will lessen their impact upon humanity. National Adversity Risk Lessening Law acknowledges the importance of data and knowledge management, it fails to provide a framework for establishing a dedicated information system. The rising ubiquity of societal media and mobile devices, Social networks like Twitter and Facebook can help to collect data from folks in the calamity sector. The cloud, which provides elastic and accessible infrastructure, becomes the natural choice for such claims. Cloud based workflow administration system along with scheduler for natural calamity management system, wherein Cloud environment, web service and EC2 technologies have been leveraged in order to project the Cloud based workflow model for disaster management organization.

**Keywords:** Disaster management, Social media, Internet of Things (IoT), Cloud Computing, DMS.

**1 INTRODUCTION:**

A calamity can come in many forms including but not limited to earth-quakes, storms, foods, fire and eruption of diseases. It causes loss of lives and severely affects the economy. A disaster is a grave disruption of the working of a public or a society, at any scale, incidence or onset, due to hazardous events leading to impacting human, material, financial and ecological losses. The source of disaster can be natural, anthropogenic or both. Natural calamities are related with natural processes and singularities such as hurricane, tsunami and earthquake, while anthropogenic disasters are predominantly induced by human actions, e.g. civil war. The key goal of a disaster hazard management (DRM) strategy is to reduce the impact of disaster on human lives and economy. Information and communication technologies (ICTs) have already been used to support the DRM actions.

**i) Rousing Situation: Mitigating Flood Disaster**

A weather prediction in a certain zone indicates a heavy rainfall which can possibly cause flooding in the area. After getting information from Bureau of Meteorology, creates a temporary social network to provide besieged information to the people in the area.

- **Mitigation:** Concerns the long-term events or actions to prevent future disasters or minimize their possessions
- **Preparedness:** Plans how to retort a tragedy.
- **Response:** Reduces the hazards created by a disaster.
- **Recovery:** Reinstates the community to normal [2].

**ii) Social media for catastrophe supervision**

Disaster management aims to condense or avoid the possible losses from hazards, assure prompt and appropriate assistance to victims of disaster, and achieve rapid and operative retrieval. There is a multiplicity of descriptions of social media. In general, social media are sketchily defined as any online platform or channel for user produced content.

- **Social networking:** Cooperates by adding friends, observing on profiles, joining groups and having discussions. Such social network sites can produce, spread, and share relatively short messages, photos, or videos over the Internet at a high speed.
- **Social bookmarking:** Interrelates by tagging Web sites and searching through Web sites bookmarked by other people.
- **Social photo and video sharing:** Interrelate by sharing photos or videos and observing on user submissions [2].

**2 OPPORTUNITIES:**

Social media are largely used during ordinary tragedies as a news basis and tool by both the public and substitute service agencies to interconnect with family and friends. Social network sites offer a link to connect with family associates between affected and unaffected societies or extents.

- **Near real-time:** Social media are basically real-time offering single strengths as a data source, methods, and tools for the allocation of data in disasters
- **Facilitates knowledge sharing:** social media ease better data sharing between societies and administrations.
- **Two-way medium:** Administrations can respond straight to comments and feedbacks posted on blogs, Twitter, or Facebook, or even influence other social knowledges such as YouTube to allocate sensible and precise information straight to those disturbed [2].

### Internet of Things (IoT)

As defined by Minerva, Biru [16], an Internet of Things (IoT) is a network that connects uniquely identifiable Things to the Internet. The Things have sensing/actuation and probable programmability competences.

### Sensors and Mobile Phones

Different terms have been used to describe sensors and sensor networks. The W3C semantic sensor network employed group analysed these terms to develop SSN ontology.

Traditional IoT and smartphone-based applications often accept that a communication network exists between an IoT device and the internet.

### Delay Tolerant Networks

Delay Tolerant Networks (DTNs) provide substitutions to traditional networks. A DTN addresses three distinct problems related to communication in challenged networks: delay, disruption and disconnection. A DTN eases connectivity of systems and network regions with irregular or unstable message links. When creating this type of unscrupulous network, the three extents, namely, technological, etiquette and mobility need to be considered:

- **Technological dimension:** An unscrupulous network is principally based on wireless links. The features of these links may vary suggestively among devices.
- **Protocol dimension:** Similar to technology, protocols also vary significantly with variations in communication technologies. MAC protocols, network protocols, and conveyance protocols are reliant on the network values followed by physical links.
- **Mobility dimension:** Considering most of the end devices during severe adversities are portable and mobile devices, the mobility dimension is serious to connectivity, routing and coverage. Some of the contests in dealing with DTNs are [1][4].
- **Intermittent connectivity:** The end-to-end connection between communicating schemes may not exist.
- **Low data rate and long latency:** In DTNs, broadcast rates are moderately low and inactivity may be large.
- **Security:** Because transitional nodes can be used to relay messages, there are potentials of security attacks that can concession data integrity, legitimacy, user privacy and system routine.

### 3 CLOUD COMPUTING TO EASE DISASTER MANAGEMENT:

In times of critical situation, system failures may occur because the adverse conservational conditions, such as physical damage, power outages, floods, etc.

- **High performance and Flexibility:** Cloud computing provides scientists with a completely new computing example for accessing and utilizing the computing infrastructure. Hazard events often have annual or periodic variability and are of short duration. Most events classically last a relatively short period from several.
- **Resilience:** Architectural pliability can be attained in many ways including (1) having back-up redundant systems that inevitably deploy when primary systems fail, or (2) employing multiple resolutions to ensure that some minimum level of system functionality is available during gigantic system failures [2].

### The Application

In order to demonstrate the application of our future application framework for disaster management, we developed a activist as described below showcasing the key apparatuses of the architecture.

### Data sources and their integration

Operative response to crises and disaster events depends not only on the antique data, but also real-time data from manifold digital channels including social media feeds, text communications from mobile devices and sensor networks

**Event Ontologies and Event Detection**

Since big data consist of structured, formless, and image data, we needed to develop novel methods for detecting events. For this, firstly the states of interest were identified to define the entities to develop event ontology.

**Mobile App for TSN over DTN:**

We developed aoutline for distributed distribution of messages over the GSM network by leveraging the abilities of smartphones in an emergency state. The important challenge lies in familiarizing community inspired publish pledge model in privacy conserving and ascendable manner. In an alternativesituation, the communication goes beyond GSM network. The quantity of data made in emergency state can overpower computer substructures not prepared for such data inundation and consequent need for more CPU power.

**Portable Cloud Computing for Emergency Evacuation**

The withdrawal area is divided into several zones, with each zone having an emergency response vehicle (ERV). Each ERV provides local cloud functionality accessible via Wi-Fi, 3G, and satellite networks. The responders are fortified with mobile bulges (for example, smartphones), wearable devices (for example, Google Glass), and devices which connect to local clouds for low latency data processing, storage and access.

**A Flexible System for Emergency Evacuation**

Flexibility Management for Cloud Computing also includes several network and cloud entities to enable cloud and network analytical and selection. These entities include local and public clouds, such as Amazon Elastic Compute Cloud (EC2), Microsoft Azure, and Google Cloud Platform, home agent, cloud probing service (CPS), cloud ranking service (CRS), mobile node, Wi-Fi and 3G networks, and an anchor point [4].

**4 SCALABLE CLOUD COMPUTING :**

Emergency supervision application deployed in the cloud co-exist and share the same structure with other critical applications. The virtual machine model was initially designed for multi-objective optimization and was later prolonged to support multicriteria optimization in the context of cloud resource collection. The model will be applied in the context of autonomic administration of cloud resources to adapt to variations in the application workload. Moreover, we developed a multi criteria based assortment algorithm based on Analytic Hierarchy Process (AHP) [5][6]

- **Proposed Disaster Management Workflow Management System**

The enactment structure of a DMS has been proposed based on Cloud environment for following reasons

- **Components of Proposed Disaster Management System (DMS)**

The proposed DMS consists of six major components such as (1) Web Portal, (2) Role Manager, (3) Workflow Engine, (4) Workflow Scheduler, (5) Workflow Monitor and (6) Notification (This is an important constituent of the system. There are two different types of events those have been performed by Announcement. One is to implement Cloud to device messaging (C2DM) in order to broadcast notice to mass people [3]). Among these components, Workflow Engine (WE) and Workflow Scheduler (WS) are the most important components.

**5 SECURITY AND PRIVACY:**

We measured security and privacy in both mobile phone apps and sensors based IoT systems. In an Android operating system based mobile phone application, one of the attacks related to our TSN over DTN application in a disaster scenario is the Sybil attack. The Sybil attack is an attack wherein a standing system is undermined by falsifying identities in peer-to-peer networks. The lack of uniqueness in such networks enables the bots and malicious entities to simulate fake GPS report to influence social navigation systems. Another hard task was how to permit end-to-end security and privacy in processing big data streams produced by geographically dispersed mobile phones and sensors.

**Cloud Disaster Recovery Solutions Are Complex**

IT issues like data centre failure and service outages are at the centre of DR for a good reason: they're far and away the most common disasters businesses face. But while having a strong data centre solution is key there are plenty of other situations that can inflict calamitousimpairment . Sometimes the universe just has it out for you. Your data centre goes down while key members of your team are sick with a bad flu. [6][7].

**6 CONCLUSIONS AND FUTURE WORK:**

IoT and cloud enabled BigData claims have abilities to create significant impact in the organization of disasters. In this chapter, we firstly introduced the concepts related tragedy as well as IoT, cloud and BigData machineries. Then, we discussed about a probable disaster condition and how these machineries would work in such a state. This state was then used to appreciate the gaps that required further examination and progress. We

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also branded supplementary paths of research in this area. Our discriminating encryption method needs to be protracted to integrated data flow model. We acknowledged the need of emergent TSN over an previous mobile network in order to transmit data during disaster state.

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**ANALYSIS OF RESPONSIVENESS OF RESIDENTS' OF MUMBAI CITY TOWARDS APPROACHES AND PROSPECTS OF SPIRITUAL TOURISM IN INDIA**

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**Abstract**

*Spiritual tourism is becoming a key prospect in Indian tourism industry with not only Indians but foreign nationals too opting to visit popular Indian cities for pilgrimage. The globalization and exposure created by cautious efforts to popularize Indian culture and ethos have led to increase in spiritual tourism leading to need for all round development for such tourist cases. The study aims at evaluating approaches and prospects in spiritual tourism in India through analysis of perceptions and willingness of Indian tourists. It also explores the potential of spiritual tourism in India. The structured questionnaire was circulated using random sample technique to collect primary data from respondents. The study shows that if required policies decisions are taken and if there are collaborative efforts made for creating infrastructure and facilities, then spiritual tourism can lead to a significant contributor in Indian economy's growth.*

*Keywords – Spiritual Tourism, Approaches, Prospects, Pilgrimage*

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**INTRODUCTION:**

Spiritual tourism is becoming a major heightening area of the Indian travel market with more Indians opting to go on pilgrimage across the India. Spiritual tourism is one of the biggest unexplored markets for domestic travel, it has been observed that nearly 60% of domestic tourism in India is religion-based. It is fascinating to see that youngsters along with adults are showing quite a high propensity towards exploring indigenous cultural experiences in our country. One of the key perceived factors of spiritual tourism is that it is formed out of the desire for some form of change and the belief which can be found at the pilgrimage site. Over the years travel to spiritual place have increased, believe is spirituality has inspired people to travel even with poor infrastructure, communication and travelling.

There has been abundant manifest dotted across the country that Spirituality has been the Despite the destruction made by the attacker from the other countries, the spiritual icons of the country were able to resuscitate themselves and procure back their original glory and fame. cornerstone of India and it was patronized by all the King's through different centuries.

**India is a pivot for Spiritual tourism**

Since the classical times, India has been known as the pivot of several religions and practices. Jainism, Hinduism, Christianity, Islam, Sikhism are the most popular religions in India. There have been remarkable centers for all these religions which are the places for the community worship and social harmony. The Kings who had been reigning the different parts of the country were very keen in patronizing the worship place in their region and ensuring that gradual augmentation and developments are being done over the decade. From the paleontology engraving it can be seen that The Kings have contributed huge areas of lands and the proceeds from the lands are to be used for the uninterrupted services to the temple and the divinity.

You can never find in any part of the world, the kind of structured arrangements for safeguarding and maintaining the holy centers which are considered to play an essential role in the people lives and the society. Several Mutts Monasteries and Ashrams, are being run where the religious and educational institutions are sprint to benefit the society.

**Spiritual Tourism in India**

Spiritual tourism in India focuses on the strategic destinations of the country where you can traverse the essence of spirituality and try to experience the intramural peace. The temples irrespective of any religion is constructed so magnificently to symbolize the ideology of life's uncertainty and the need to surrender to God to get relieved from the cycles of birth and death.

In a comprehensive perspective, it can be also noticed that the majority of the tourists are attracted and driven by the religious belief and value, on the other side it has also been remark that spiritual tourism only seeks the essence of spiritual experiences without any religious references. Although spiritual tourism is an immense form of religious tourism through which tourists experience more than their expectation.

**Preferred destinations for spiritual tour in India**

Though India has plenty of holy centers thronged by devotees round the year, few of them have been considered as the liveliest and spiritually powerful destinations. The list is inclusive of Bodhgaya, Golden temple in Amritsar, Varanasi, Sarnath Stupa, Dilwara temples in Rajasthan, Rishikesh and Kedarnath temples, which are some of the most popularly visited temples in North India. Brihadishwara temple at Tanjore, Ekambareswarar temple in Kanchipuram, Meenakshi Amman temple at Madurai, Annamalaiyar temple in Tiruvannamalai, Ramanathaswamy temple in Rameshwaram and Nataraja temple in Chidambaram are the most popular temples in South India.

**STATEMENT OF PROBLEM:**

Tourism has been recognized as one of the major industry contributing in a state's revenue of many countries. Many countries are known for their spiritual legacy. Thus, although there has been an encouraging trend in the recent time, sufficient compositions on spiritual tourism is yet to be generated. Feasible effect on number of inbound and outbound tourist to different spiritual places and its economic inference needs to be explored. Such scrutinize could be case specific as different spiritual places are located at different geographic locations in India.

**REVIEW OF LITERATURE:**

(N. R. Vembu, 2017) in their paper "Spiritual tourism and identification of satisfaction among pilgrims - An empirical study" had examined the pilgrim's perception towards selected temples in Kanchipuram town with the help of the Primary data. The researcher enlightened the need of proactive monitoring of Municipality in Kanchipuram temples for the provision of water and rest room facilities, proper guide with relevant language and slang, maintenance of neat and hygienic, waiting rooms especially breast-feeding mothers, reasonable cost for prasadam to ensure the satisfaction of pilgrims.

(Banerjee, 2015) in her paper "Spiritual Tourism: A tool for Socio-Cultural and Sustainable Development" had presented a way of healthy life by way of spirituality and control social crime, and also suggested how the responsible and sustainable use of natural and cultural assets in the development of spiritual tourism can create generate income, alleviate poverty, employment opportunities, prompt product diversification, restrain rural flight migration and bring up a sense of pride among communities and destinations.

(S. Vargheese Antony Jesurajan, 2012) in their paper "Dimensions of Spiritual Tourism in Tuticorin District of Tamil Nadu in India – A critical analysis" based on secondary data has investigated pilgrimage tourism and its issue and challenges and its cultural importance and socio economic development through pilgrimage tourism and also it analyses the basic infrastructure issues in pilgrimage sites.

**OBJECTIVES:**

After detailed review of literature including books, articles, research papers and journals, researchers have identified following objectives for the study.

1. To study current positioning of spiritual tourism industry.
2. To review the trends in tourists' responsiveness towards spiritual tourism industry
3. To analyze the perception of tourists towards spiritual tourism industry.
4. To predict the potentials of spiritual tourism industry for future.

**HYPOTHESIS:**

Researchers have decided to form following hypothesis based on objectives formulated for the study

1. H<sub>0</sub>: the satisfaction level about public utility services at Spiritual Tourist places does not affect the decision of visiting the place
2. H<sub>0</sub>: Non – religious factors do not affect decision of visiting Spiritual Tourist places
3. H<sub>0</sub>: There is no correlation between Age and Amount willing to spend on Spiritual Places

**RESEARCH METHODOLOGY**

This study aims to critically evaluate the approaches and prospects of Spiritual Tourism of India in Mumbai. Hence the Research Design of the study is exploratory research design. The first hand data are collected directly from the respondents with the help of questionnaire as an instrument for the study. The secondary data were collected from sources such as various journals, research papers, newsletters, books and websites. Statistical Technique is used with the help of SPSS software.

**DATA ANALYSIS AND INTERPRETATION**

A structured questionnaire was sent to Students, salaried group, professionals, self-employed and homemakers in Mumbai city via email for response on their approaches and prospects towards spiritual tourism of India. A sample size 101 respondents is considered for collecting primary data.

1. Relationship between already visit/ willingness to visit in spiritual place and satisfaction level for various public utility services.

- a) **Transport**

**Chi-Square Tests**

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	2.892 <sup>a</sup>	3	.409
Likelihood Ratio	2.565	3	.464
Linear-by-Linear Association	.993	1	.319
N of Valid Cases	101		

**Table 1.1**

From the chi square output table, we see that a significance level of 0.409 which is more than 0.05 (Pearson). Hence we accept the null hypothesis, which means that chi square test is showing a non-significant association between the above two variables.

- b) **Drinking water**

**Chi-Square Tests**

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	10.468 <sup>a</sup>	4	.033
Likelihood Ratio	9.818	4	.044
Linear-by-Linear Association	1.612	1	.204
N of Valid Cases	101		

**Table 1.2**

From the chi square output table, we see that a significance level of 0.033 which is less than 0.05 (Pearson). Hence we reject the null hypothesis, which means that chi square test is showing a significant association between the above two variables.

- c) **Cleanliness and Hygiene**

**Chi-Square Tests**

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	2.461 <sup>a</sup>	4	.652
Likelihood Ratio	2.428	4	.658
Linear-by-Linear Association	.255	1	.614
N of Valid Cases	101		

**Table 1.3**

From the chi square output table, we see that a significance level of 0.652 which is more than 0.05 (Pearson). Hence we accept the null hypothesis, which means that chi square test is showing a non-significant association between the above two variables.

**d) Restrooms****Chi-Square Tests**

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	6.593 <sup>a</sup>	4	.159
Likelihood Ratio	6.082	4	.193
Linear-by-Linear Association	.000	1	.998
N of Valid Cases	101		

**Table 1.4**

From the chi square output table, we see that a significance level of 0.159 which is more than 0.05 (Pearson). Hence we accept the null hypothesis, which means that chi square test is showing a non-significant association between the above two variables.

**e) Local eateries****Chi-Square Tests**

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	3.176 <sup>a</sup>	4	.529
Likelihood Ratio	3.476	4	.481
Linear-by-Linear Association	.253	1	.615
N of Valid Cases	101		

**Table 1.5**

From the chi square output table, we see that a significance level of 0.529 which is more than 0.05 (Pearson). Hence we accept the null hypothesis, which means that chi square test is showing a non-significant association between the above two variables.

**f) Accommodations****Chi-Square Tests**

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	.794 <sup>a</sup>	3	.851
Likelihood Ratio	.789	3	.852
Linear-by-Linear Association	.735	1	.391
N of Valid Cases	101		

**Table 1.6**

From the chi square output table, we see that a significance level of 0.851 which is more than 0.05 (Pearson). Hence we accept the null hypothesis, which means that chi square test is showing a non-significant association between the above two variables.

**2. Relation between Non - religious factors and decision of visiting spiritual tourist places.****a) Local Transport****Chi-Square Tests**

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	8.590 <sup>a</sup>	4	.072
Likelihood Ratio	7.756	4	.101
Linear-by-Linear Association	.882	1	.348
N of Valid Cases	101		

**Table 2.1**

From the chi square output table, we see that a significance level of 0.072 which is more than 0.05 (Pearson). Hence we accept the null hypothesis, which means that chi square test is showing a non-significant association between the above two variables.

#### b) Private Transport

**Chi-Square Tests**

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	.539 <sup>a</sup>	3	.910
Likelihood Ratio	.797	3	.850
Linear-by-Linear Association	.173	1	.677
N of Valid Cases	101		

**Table 2.2**

From the chi square output table, we see that a significance level of 0.910 which is more than 0.05 (Pearson). Hence we accept the null hypothesis, which means that chi square test is showing a non-significant association between the above two variables.

#### c) Shopkeepers and vendors

**Chi-Square Tests**

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	1.289 <sup>a</sup>	3	.732
Likelihood Ratio	1.257	3	.739
Linear-by-Linear Association	.312	1	.576
N of Valid Cases	101		

**Table 2.3**

From the chi square output table, we see that a significance level of 0.732 which is more than 0.05 (Pearson). Hence we accept the null hypothesis, which means that chi square test is showing a non-significant association between the above two variables.

#### d) Entertainments

**Chi-Square Tests**

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	5.033 <sup>a</sup>	4	.284
Likelihood Ratio	6.471	4	.167
Linear-by-Linear Association	2.326	1	.127
N of Valid Cases	101		

**Table 2.4**

From the chi square output table, we see that a significance level of 0.284 which is more than 0.05 (Pearson). Hence we accept the null hypothesis, which means that chi square test is showing a non-significant association between the above two variables.

## e) Other tourist attraction

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	2.547 <sup>a</sup>	3	.467
Likelihood Ratio	2.186	3	.535
Linear-by-Linear Association	.699	1	.403
N of Valid Cases	101		

Table 2.5

From the chi square output table, we see that a significance level of 0.497 which is more than 0.05 (Pearson). Hence we accept the null hypothesis, which means that chi square test is showing a non-significant association between the above two variables.

## 3. Correlations between age and amount willing to spend on spiritual place in India

Correlations

		Age	How much you are willing to spend on spiritual place in India ?
Age	Pearson Correlation	1	-.211 <sup>*</sup>
	Sig. (2-tailed)		.034
	N	101	101
How much you are willing to spend on spiritual place in India ?	Pearson Correlation	-.211 <sup>*</sup>	1
	Sig. (2-tailed)	.034	
	N	101	101

Table 3

From the above correlation test output table, we see a significant level of 0.211 which is more than 0.05 and hence we accept the null hypothesis. This means there is no correlation between the two variables.

## 4. Significance test of two variables i.e. Annual Income and travel plan by way of T-Test

Group Statistics

Do you Prefer to travel on your own or through a Tourist Company ?	N	Mean	Std. Deviation	Std. Error Mean
Annual Income own	79	2.15	1.051	.118
Tourist Company	22	1.86	.889	.190

Independent Samples Test

		Levene'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
Annual Income	Equal variances assumed	2.198	.141	1.174	99	.243	.288	.246	-.199	.776
	Equal variances not assumed			1.290	38.951	.204	.288	.223	-.164	.740

Table 4

From the above T-Test output table, we see significant level of 0.141 which is more than 0.05, hence we accept the null hypothesis. Significant value of two tailed indicates there is no major difference in lower and upper interval.

## CONCLUSION

India has become global leader in Spiritual Tourism with rising exposure to Yoga and meditation globally. As country we have immense potential to attract domestic as well as foreign tourists. The challenges in terms of public utilities and infrastructure could be obstacle for future growth. Cautious efforts taken by Government in policies and Public Private Partnerships can make spiritual tourism as valued industry.

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**A CONCEPTUAL STUDY OF ENVIRONMENTAL MANAGEMENT ACCOUNTING AT CORPORATE LEVEL**

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**ABSTRACT**

*Environment is a very wide term which includes everything in all its clear forms, on the globe, under the globe and above the globe. The natural resources of a nation influence the business movement of every enterprise. Similarly, the functioning of an enterprise has some positive and a few adverse effects on the environment. It's necessary to keep up accounts of sound effects of performance of company on the atmosphere. Environmental accounting is a loyal attempt to identify and brings to light the resources exhausted and price rendered normally to the environment by a business corporation. It is hereafter concerned with recording environmental components. Implementation of Environmental Management Accounting (EMA) is one way of the strategies to enhance environmental and economic performance of business companies. It deals with review and revealing of environment related information, which helps to take both internal and external decision making of the organization.*

*This paper describes the characteristics, importance and benefits of Environmental Management Accounting (EMA) and its implementation in company is the need of the day.*

*Keywords: Environment, management, enterprise, elements, Business Corporation*

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**INTRODUCTION:**

Environmental accounting is remains at an early stage of development and it is being groomed under the voluntary management of a range of enterprises around the world. Environmental accounting is one of the centre tools & techniques of environmental management. It's a useful device for development of financial and ecological act of an enterprise. It helps in rising effective communication and relationship with many stakeholders. At the organization level, Environmental Accounting takes place in the framework of both management accounting and financial accounting.

Environmental Management Accounting places particular importance on accounting for environment-related costs such as waste management costs and the lost value of wasted raw materials. EMA includes not only cost information, but also information on quantities, flows and disposal of materials and energy. EMA information is important for many types of management actions or decisions, but is particularly useful for environmental management.

**DESIGN OF THE STUDY:**

This study is relies on secondary data, which was collected from totally different reports, books, journals, magazines, thesis and websites. Collected knowledge was given for coherent status. This study is purely descriptive sort. Thus, the field of study is limited however it aims at learning the aspects of Environmental Management Accounting.

**OBJECTIVE OF STUDY:**

- To study the concept of Environmental Management Accounting from the point of view of accounting at company level.
- To acknowledge the attention regarding Environmental Management Accounting at corporate level.

**Environmental Accounting:**

Environmental accounting is a concept with various meanings and uses. It's a broad field of accounting that gives reports for both internal use, making environmental information to assist in building management decision on evaluation, controlling overhead and capital budgeting, and external use, revealing environmental information of the corporate to the interested public and to the financial area. Environmental accounting can be understood as a management tool that used for a range of functions. Also, environmental accounting has seen by approach of the production analysis, and use of monitored environmentally connected information to decrease company ecological adverse impact on natural environment and to enhance economic performance.

**Forms of Environmental Accounting:**

The environmental accounting has three very important forms those are Environmental National Accounting, Environmental Financial Accounting, and Environmental Management Accounting that are mentioned below in details.

**Environmental National Accounting:**

The word environmental accounting will refer to this national economic state of affairs. For example, environmental accounting can be used physical or monetary units to refer to the consumption of the country's natural resources, each renewable and non-renewable. During the state of affairs, environmental accounting has labelled as "natural resources accounting." National level accounting emphases on natural resources, stocks, and flows, environmental cost and externality cost.

**Environmental Financial Accounting:**

Enable companies prepare financial reports that are used by investors, lenders, customers and others, publically control firms, report information on their financial condition and performance through quarterly and annual reports. However they are governed by Indian Accounting Standards (IAS), Generally Accepted Accounting Principles (GAAP), International Financial Reporting Standards (IFRS) are having been taken basis for this reporting, and also the recently introduced Company Act 2013. Financial accounting focuses on reporting environmental costs and position costs.

**Environmental Management Accounting (EMA):**

Management accounting emphases on material and energy flow information and environmental cost information. Management accounting is that the technique of identifying, collecting, and analyzing information principally for internal functions. Management accounting can include data on costs, production levels, inventory and vital aspects of a business. The information collected under a business's management accounting system is used to plan, evaluate, and control in various ways: planning and directing management attention, raw material purchase decision making, capital investments, product cost accounting, risk management, process/product design, and fulfilment methods.

**Definition of Environmental Management Accounting (EMA):**

Environmental Management Accounting has no single, commonly conventional definition. According to IFAC's Statement Management Accounting Concepts -

"EMA is the management of environmental and economic performance through the development and implementation of appropriate environment-related accounting systems and practices. While this may include reporting and auditing in some companies, environmental management accounting typically involves life-cycle costing, full-cost accounting, benefits assessment, and strategic planning for environmental management."

**Environmental Management Accounting - Physical information:**

Any organization which wants to measure environmental cost correctly. It has to collect monetary as well as nonmonetary information of use of materials, personal hours and other cost drivers. Many organizations have direct impact on the environment. Usage of energy, materials, water and their secretion and wastage additionally have an effect on the environment.

Most of the manufacturing organizations, with the assistance of energy and different resources, raw material convert it into finished goods and it is delivered to customers. Throughout this conversion process the entire input is not turned into finished product. There are certain resources which are used in the production process but not a part of the finished goods or final product. Examples are water used for construction sites of medicines, fuel used in the transport operations etc. These resources become waste at the end and the organizations have to manage its disposal. Other sectors are also no exceptions to this like agriculture, service sectors like transport etc. Waste to the environment contaminate the atmosphere and have an effect on the health of humans and other livestock.

Under the physical accounting side of EMA, an organization ought to try to track all physical inputs and outputs and assure that no important amounts of energy, water or other materials are unaccounted for. The accounting for all energy, water, materials and wastes flowing into and out of company is termed as "materials balance," sometimes also referred to as "input-output balance."

**Environmental Management Accounting – Monetary Information:**

This is a sub system of Environmental Management Accounting, and it shows the financial impacts of environmental performance. It permits management to take decision bearing in mind monetary aspects of products and projects. It creates monetary information for internal management use, for example the amount spent as fees or as fines for violating the environmental laws, or amount investment in project which defend the environment.

**Need of Environmental management Accounting:**

Environmental Accounting can support the more efficient use of resources and increase productivity as well as bottom line profitability. It assists to know that whether the Company has pleased its responsibilities in the direction of the environment or not. Environmental accounting is a management tool that mixes the financial implications of environmental issues in the financial management systems of organizations to develop more efficient decision-making to help support natural and economic sustainability.

**The need for environmental accounting is as follows:**

- To satisfy regulatory requirements or going further than that prospect.
- To supply useful environment-related information for different internal and external stakeholders for their decision making purpose.
- To clean up pollution that already exists and properly disposing of the dangerous material.
- To reduce environmental costs is possible through energy and resource protection by adopting proper accounting method.
- To report to the investors both possible and current, the amount and nature of the preventive measures taken by the management.
- To help the enterprise to use a competitive advantage as customers may prefer environmentally friendly products and services.
- To enjoy cut-throat benefit by minimizing environmental impacts through improved design of products, packages, and processes.
- To promote a company having broader environmental awareness.
- To control over operational and material efficiency gains driven by the global market.
- To help management in decision making which are taken on actual cost and benefits with appropriate identification and allocation of environmental costs, more accurate costing and pricing of products and investment.

**Uses and Benefits of Environmental Management Accounting:**

- An organization's decision-makers can use the physical flow information and monetary information provided by EMA to make decisions that impact both the environmental and financial performance of the organization.
- EMA does not assurance any specific level of financial or environmental performance. Organizations have the goals of minimising costs in general and environmental impacts.
- EMA data is certainly most valuable for management activities with specific environmental components, or management decisions with the potential for significant environmental impacts. Examples include: the development, implementation and maintenance of environmental management systems, assessment of the environmental performance of operations, products, and services, and many others.
- EMA provides not only the cost data necessary for assessing these management activities, but also the physical flow information (e.g., raw materials use and waste generation rates) that help characterise environmental impacts.
- Once EMA is implemented an organization becomes more capable and environment friendly. The major reason is visibility of environment cost, which leads to current accounting practices which is a challenge to the organization.

**CONCLUSION:**

- EMA is an important area and it plays a vital role for the development of the economy.
- EMA focuses on all related matters like data related with contribution of natural resources to the economic comfort, as well as resources degradation and environmental contamination.
- The corporate can get benefit by implementing this system. They can get actual cost of production of products, real and hidden costs and also helps them to fix proper price.

- Company have a chance to make stake holders happy and can proudly talk about their eco friendly atmosphere and product they manufacture.
- Lack of awareness and assurance on the part of company management keep them away from reporting environmental costs and benefits.

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**“CHALLENGES AND PROSPECTS FOR GLOBAL ECONOMIC, BUSINESS AND SOCIAL ENVIRONMENT” BUSINESS ETHICS, SOCIAL RESPONSIBILITY & CORPORATE GOVERNANCE**

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**Meena Desai, Dr Pooja Ramchandani and Soumya Ahuja**

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**INTRODUCTION**

*Areas like corporate governance, ethical business practices, and social responsibility are receiving increasing importance in recent times. Crises caused by a lack of stakeholder involvement and corporate governance have given rise to the need for accelerating growth with accountability and ethical integrity.*

*With the general public's growing understanding of corporate wrongdoing, social and environmental awareness, business ethics help bolster a company's position in the market and create long-lasting success.*

*Business ethics can be defined as the general favourable behaviour and standards that business must adhere to, while corporate social responsibility (CSR) is, as per the World Business Council for Sustainable Development, the 'continuing commitment by business to behave ethically and contribute to economic development while improving the quality of life of the workforce and their families, as well as the local community and society at large.' (Corporate Environmental Responsibility: Is a Common CSR Framework Possible, n.d.)*

*In short, CSR can be viewed as a mutually beneficial practice that helps businesses create economic value, by pushing social progress.*

*Corporate governance includes the actions that boards take to set the values of a company. It differs from day-to-day management, shedding light on goals and strategic aims, rather than implementation by full-time executives. ("What is corporate governance?", n.d.)*

*It can be viewed as a value system, encapsulating business ethics and social responsibility.*

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**OBJECTIVE OF STUDY**

The objective of this study is to evaluate the importance of CSR, business ethics and corporate governance, and the opportunities and challenges in the sector.

To present the case and develop conclusions, cause for the emergence of the topics and integration into business will be studied. This paper interprets qualitative data gathered from secondary sources.

**REVIEW OF LITERATURE****A Brief History**

Corporate Social responsibility, which is now an integral part of business, has been a concept since the Industrial Revolution. While industrialists realised that providing favourable conditions within and outside the workplace would only positively impact productivity, the action was, in many cases driven by a will to do charity as well. Milton Hershey built 'model' company town for his employees, creating a community. The town featured comfortable homes, tree-lined streets, inexpensive public transportation, and recreational facilities by way of a park that grew to include amusement rides, a ballroom and a swimming pool. Following this, he set up a school for orphans. (*Milton S. Hershey / Hershey, PA, n.d.*)

During the World Wars, American companies began donating food and supplies to Allied nations, and factories were repurposed to meet supply shortages.

While these activities were not earmarked as CSR, they did embody the true meaning of the term.

**CSR In Modern Times****Opportunities and Prospects**

CSR took on a more formal role in business in the 1980s. In 2015, 92% of the 250 biggest companies in the world produced CSR reports. Fortune Global 500 companies are said to spend about \$20 billion a year on CSR activities. (*"Stop Talking About How CSR Helps Your Bottom Line", 2018*)

As per government policy in India, companies with a net worth equal to or exceeding Rs 500 crore, or a turnover of Rs 1,000 crore or more are required to spend 2% of their average profit from the past three years on CSR activities. (*"Corporate Social Responsibility Under Section 135 of Companies Act 2013", 2021*)

While alignment with the business' purpose and values should be the primary goal for a CSR program manager, quantifiable results are necessary to sustain. In this section, the paper explores successful CSR campaigns that drove growth.

Unilever's Project Shakti was launched to combat the competition the firm was facing due to liberalization of the economy. It addressed the problem of under-penetration in rural areas by involving local women as sales representatives, at the same time empowering these women with a steady income stream. During its pilot launch in the year 2000, the program was present in a few select villages of Andhra Pradesh. By 2002, it covered two states and by 2004 it included over 13,000 women across 50,000 villages in 12 states, with a market size of 70 million. (*"Project Shakti: Creating Rural Entrepreneurs in India"*, 2005)

Unilever's network of Shakti 'Ammas' has grown to cover half the villages of rural India. Not only has this program brought scale and significant increase in turnover to the firm, but also ensured stability when the COVID-19 crisis came about in 2020, with the company reporting faster growth in the rural areas as Project Shakti's growth outpaced the growth of HUL as a whole. (*"Shakti Network Powers HUL's Rural Growth"*, 2021)

As per the United Nation Environment Program, roughly a third of all food produced gets lost or wasted each year. This amounts to about 1.3 billion tonnes. Food losses and waste amount to around US\$680 billion in developed countries, and US\$310 in their developing counterparts. (*"Worldwide food waste"*, n.d.) French grocer Intermarché's initiative to curb food wastage also had threefold benefits. The 'Inglorious Fruit and Vegetable' campaign sold perfectly consumable, imperfect looking produce at a 30% discount. (*"Inglorious Fruits And Vegetables Campaign Is A Work Of Delicious Genius"*, 2014)

Through this initiative, consumers were able to buy the same quality items at a reduced price, and producers were able to sell goods that would have otherwise been disposed of, thereby increasing revenue. At the same time, Intermarché also increased its brand recall and built itself a new revenue stream.

Companies like Starbucks and Google are well known for their ethical practises. Starbucks' C.A.F.E Practices was the coffee industry's first ethics and sustainability program when it launched in 2004. It covers four key areas, including economic transparency, social responsibility, environmental leadership, and quality. (*"C.A.F.E Practices: Starbucks Approach to Ethically Sourcing Coffee"*, 2020) Through these practice areas, Starbucks controls the quality of their suppliers and ensures fair trade.

Google's data centres are said to be twice as energy efficient as any other company. (*"Data centers are more energy efficient than ever"*, 2020)

Toymaker Lego's commitment to sustainability through its pledge to use completely environmentally-friendly materials for all products and packaging by 2030 led to a 14% reduction in box sizes, saving the company 7,000 tonnes of cardboard. Lego also introduced botanical pieces, making a shift from petroleum-based plastic. They have also announced plans to get rid of single-use plastic packaging materials. (*"5 Examples of Corporate Social Responsibility | HBS Online"*, 2019)

While these actions contribute to environmental protection, empowerment, and sustainable development among others, they also help bolster the company's reputation, attracting better corporate citizenship and gaining the trust of consumers. Both of these factors contribute greatly to growth in the long run. Innovation positions the company as a frontrunner in the field and helps achieve brand recall and customer loyalty. This also helps tap new markets.

Increased employee satisfaction boosts productivity and creativity in the workspace, with the added benefit of reduced employee turnover.

### Challenges

The fundamental challenge is that companies are still not recognising CSR as a core issue for their business. While the government guidelines have highlighted the turnover requirements for mandatory CSR initiatives there are very few organisations which take this up seriously, let alone the smaller organisations which completely ignore this role towards their environment and society. To top this, the traditional mindset that customer satisfaction is dependent on price and service still clouds the minds of managers and entrepreneurs.

On the other hand, there is growing pressure from customers and investors to adhere to these requirements making it difficult for other organisations to live up to the expectations. While some organisations are identifying initiatives to support, the lack of community and employee involvement makes these projects look good only on paper instead of creating the impact they were supposed to. For other organisations participating

in CSR initiatives is all about getting the visibility and creating their presence which consumers are able to see through due to the narrow perception these organisations have towards CSR.

### CONCLUSION: FUTURE OF CSR

CSR has evolved over the years, and the effects of this evolution are slowly but surely becoming visible in the Indian market as well. Transitioning from an effort to improve quality of life on a personal level to a global level, it has taken on the mantle of sustainable development, and more recently ESG.

ESG, or environmental, social, and corporate governance includes non-financial factors that help determine risks and growth opportunities. ESG factors are often measurable, but cannot be assigned a monetary value. Each aspect includes a range of concerns. The 'environment' aspect ensures conservation of nature, taking into account climate change, pollution, deforestation, water scarcity, energy efficiency, and biodiversity.

The 'social' aspect of ESG includes people and the community, focusing on diversity and human rights. The 'governance' aspect, similar to corporate governance, relates to the standards a company is held to. It aims to ingrain fair value systems, protecting against corruption and such unfair practises. (*"ESG Investing and Analysis"*, n.d.)

As of 2020, only 12 Indian companies are a part of the Dow Jones Sustainability Index, used for mapping Environmental, Social and Governance performance. (*"Top performing ESG companies in India & how are their stocks faring"*, 2020) This nods to ESG being a fairly new concept in the Indian markets.

Reports state that companies that focus on ESG norms are more successful than their peers. Investing in companies with a heavy focus on ESG also allows consumers to give back and do their bit in maintaining the environment and economy, creating an overall positive impact on the world. (*Sarhan, 2019*) This in turn has long-run benefits for the investors and companies themselves.

With the concept's increasing popularity all over the world, it is imperative that businesses reevaluate their standing with regards to the framework and make necessary changes.

However, Indian businesses are taking action to develop ESG-compliant strategies. Dalmia Cement has committed to becoming carbon negative, Mahindra & Mahindra have a green product portfolio worth over \$600 million, including electric mobility, green building and waste-to-energy initiatives. To reduce pollution from truck transportation, JSW has built a pipe conveyor belt to move iron. (*Ray, 2021*)

With climate change, damage to the environment, and growing activism, consumers are growing more socially aware and being more selective about what they support and where they invest. To be able to export and even remain locally competitive, it is imperative that companies reorient their strategies to fit the ESG norms, rather than chasing a bottom-line.

The concept of CSR is creating a global footprint but in order to move from the concept to the reality a lot more challenges need to be overcome with transparency and dialogue to make the business reliable, ethical and trustworthy to meet the global requirements of its customers.

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## PROSPECTS AND PERCEPTION OF INVESTORS TOWARDS SHARE MARKET & CRYPTO CURRENCY PRE AND POST COVID19

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### ABSTRACTS

*Due to uncertain future and to secure the life, investment is gaining importance day by day. Whoever are the persons, would like to save and increase their investment for future reliability or to maintain standard of living. Idle Funds does not fetch any income. Different investments alternatives, liquidity, market price, interest rates, volatility of market etc. makes investors more cautious about their money. One should note the risk and return from the investment, while designing one's own portfolio. Fixed Deposit and Government securities are the most traditional form of Investments with good rate of return and reliability. Over the years scenario has change tremendously with the availability of different other alternatives like Fixed deposit with good credit rating companies, Stock market and Crypto currencies. Banking scams, reduced interest rate and increased inflation rate distressed the investors and compelled them to think twice before designing portfolio. Pandemic proves that nothing will be stable. Share market being the economic indicator of the country has played a great role in maintaining stable economic conditions. Even virtual currencies like Bit coin, Ethereum, Litecoin etc. are gaining popularity recently. This research paper tries to bring out the perception of Investors towards share market and virtual currency after facing the epidemic like Corona virus. A prospect of virtual currency in a country like India is also studied in this paper.*

*Keywords: Investments, Virtual Currency, Crypto Currency, Share Market, Covid19*

### INTRODUCTION

Every individual whether engaged in employment, business or profession would like to have some provision for old age and future contingencies. The only alternative is to do investment in financial assets which will give returns in the form of interest, profit, capital gain, dividend to cater future needs. While choosing the investments, one should keep in mind the different characteristics of it like liquidity, reliability, risk involved, tax benefit, rate of return, security etc. In early 1990's Fixed deposits are considered as of prime importance and investors preferred to invest maximum amount in it. Reducing interest rates and several Banking frauds that have taken place in the last two years have shook up the confidence of Investors.

Share market on the other hand considered as "Satta Bazar" and luck factors plays important role. Over the years, peoples understand the importance of the same and started study it in depth with the help of Fundamental and Technical analysis. It indicates financial health of the Indian economy and remains an important conduit for enhancing development.

Crypto currency is a form of payment that can be exchanged online for goods and services. It is a type of currency which uses digital files as money. Crypto currencies work using a technology called blockchain. Blockchain is a decentralized technology spread across many computers that manages and records transactions. Part of the appeal of this technology is its security. Crypto currencies used "Decentralised" control i.e. they are not controlled by one person or government. Being not controlled by any authority, it will take much time to gain the confidence of Investors. In India, Crypto currencies are banned If the ban becomes law, India would be the first major economy to make holding crypto currency illegal.

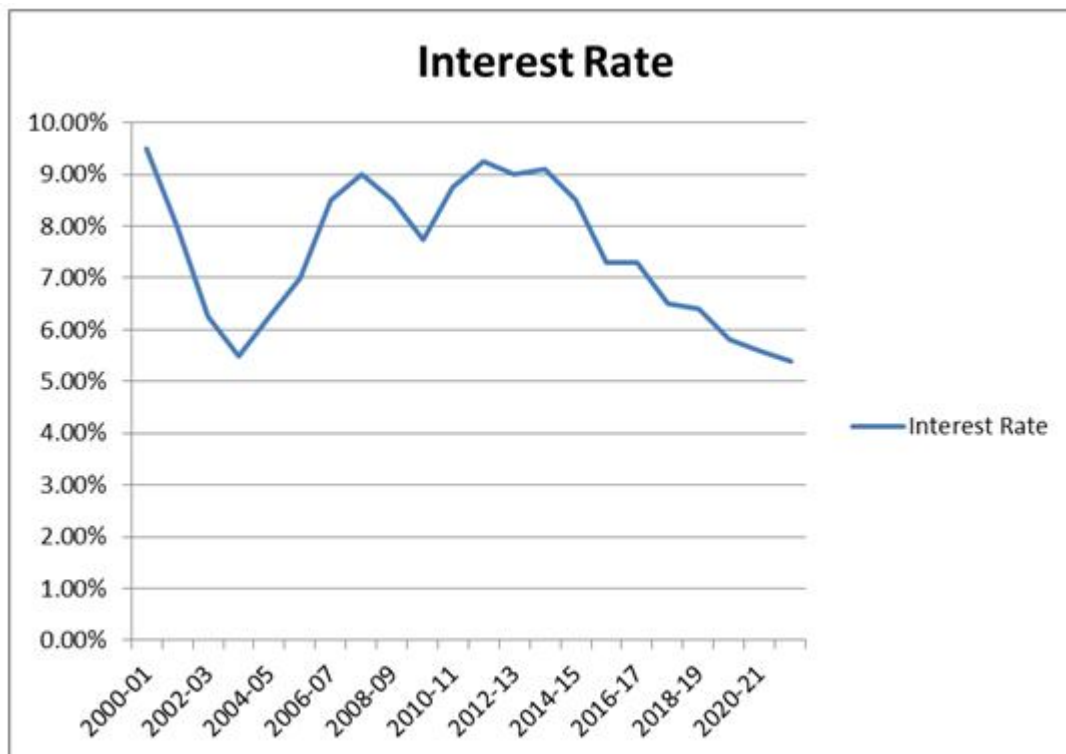
"User registrations and money inflows at local crypto-exchange Bit coins are up 30-fold from a year ago", said Gaurav Dahake, its chief executive. Unocoin, one of India's oldest exchanges, added 20,000 users in January and February, despite worries of a ban.

Financial Year	Interest Rate	Sensex	Financial Year	interest rate	Sensex
2000-01	9.50%	5543	2011-12	9.25%	19811
2001-02	8.00%	3760	2012-13	9.00%	20204
2002-03	6.25%	3538	2013-14	9.10%	22467
2003-04	5.50%	6250	2014-15	8.50%	30025
2004-05	6.25%	6955	2015-16	7.30%	29095
2005-06	7.00%	11357	2016-17	7.30%	29825
2006-07	8.50%	14724	2017-18	6.50%	36444

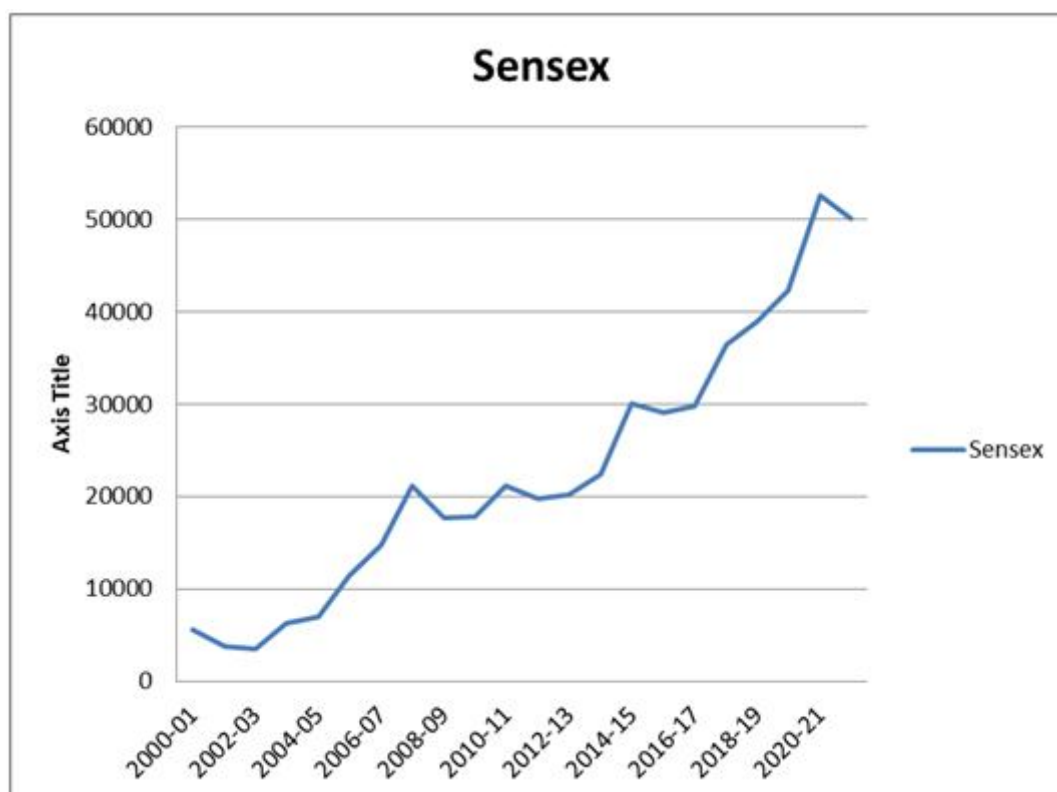
2007-08	9.00%	21207	2018-19	6.40%	38990
2008-09	8.50%	17736	2019-20	5.80%	42274
2009-10	7.75%	17793	2020-21	5.60%	52517
2010-11	8.75%	21109	2021-22	5.40%	50092

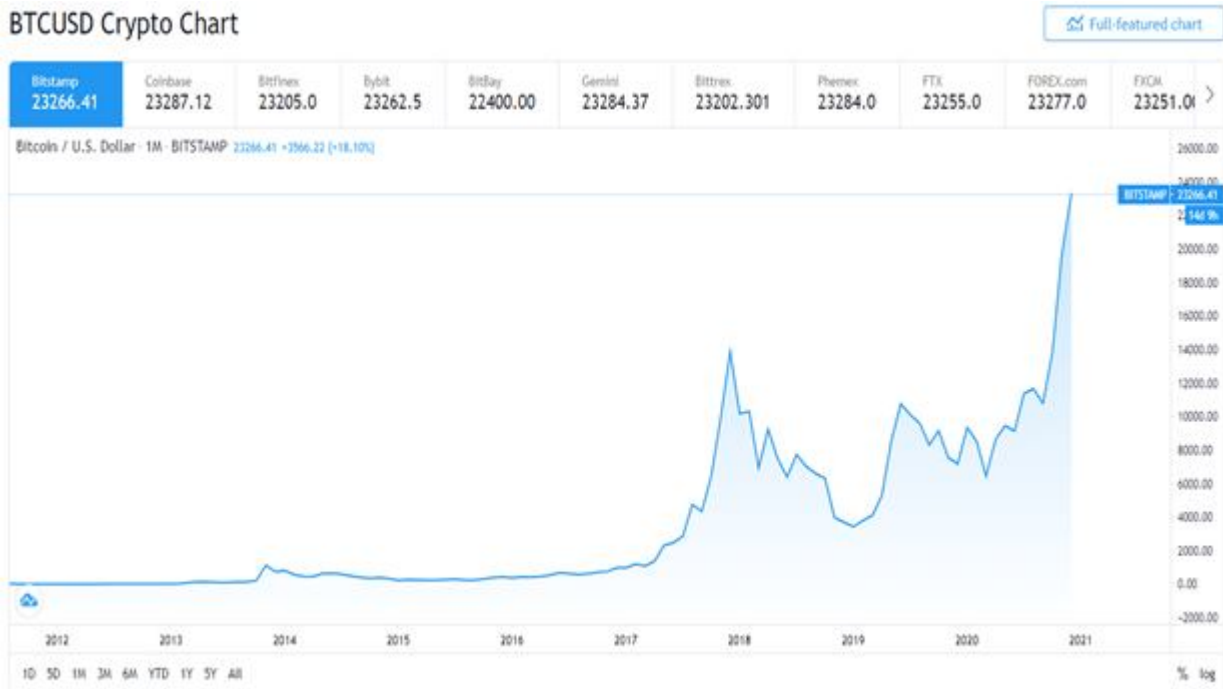
Source : [www.rbi.org.in](http://www.rbi.org.in) and [https://www.bseindia.com/markets/keystatics/Keystat\\_index.aspx](https://www.bseindia.com/markets/keystatics/Keystat_index.aspx)

The above data is shows the decline in interest rate over a period of last 20 years. On the other hand BSE Sensex was 5543 points in 2000-01 points and reaches to 50092 in 2021-22.



Data Source : [www.rbi.org.co.in](http://www.rbi.org.co.in)





Source: Investopedia.com

Crypto currency – Bit coin gained handsome returns from its inception. Currently it is traded at \$ 59,283 (Rs. 43,17,195). Above graph indicates astonishing rate hike in Bit coin. It is difficult to give predictions about other crypto currencies traded at crypto exchanges. Brief history of Bit coin:

2009-10	People begin mining currency by running special network nodes called mining nodes.
2010-11	First time, Bit Coin is traded on peer-to-peer on a Bit coin Forum. Earlier it was used for payment of Pizza delivery order. It requires 10,000 BTC for two pizzas.
2011-12	Bit coin exceeds parity with US dollar. Value of Bit coin is around \$31 in June, 2011
2013-14	Bit coin rate rises to \$1000 per BTC
2014-15	Microsoft begins accepting BTC as payment
2015-16	Rumors that Bit coin is dead
2016-17	Awareness among the peoples, make Bit coin a center of attraction and it reaches \$20,000
2017-18	Due to Launch of a Bitcoin Futures Market, there is a rapid drop in Bit coin rate and it falls down to \$3200
2018-19-20	Now it is widely accepted commodity. Awareness and adoption of Bit coin continues to grow. Price recovers and now traded at \$59283

### LITERATURE REVIEW:

“An Empirical Analysis On Perception of Investors’ Towards Various Investment Avenues” a Research paper by G.Velmurugan, V. Selvam, N Abdul Nazar. Authors try to focus on investments preference by age and high income group peoples. Study of this paper is an attempt to examine the investors’ perception towards various investment avenues in Vellore city, Tamil Nadu, India.

A Research Paper on “Investors’ Perception Towards Investment” by Ms. Anitha, D. Phani Bhargavi - Asst. Prof., Ravindra College of Engineering for Women (RCEW), Kurnool, Andhra Pradesh, India. The object of this paper is to study the preferences and analyze the significance of demographic factors that influence the investor's decision towards making investments. This study focuses on importance of demographic factors of population such as gender, age, education, occupation, income, savings and family size over several elements of investment decisions like priorities based on characteristics of investments, period of investment, reach of information source, frequency of investment and analytical abilities. The hypotheses have been developed considering its relevancy to the research objectives.

Crypto currency: A New Investment Opportunity? Research Paper by David LEE Kuo Chuen, Li Guo and Yu Wang, their centre of attention is crypto currency. They bring out the importance of crypto currency – Bit coin, as an investment. They also find risk and return characteristics of the Bit coin. Research also finds the correlation between crypto currencies and traditional assets.

### OBJECTIVES OF THE STUDY:

1. To study whether investors taste towards different investment has been changed in the view of pandemic.
2. To find out impact of increase in share market on investor's decision
3. To study the awareness and perception of investors towards crypto currency – a new avenue of investment.

### LIMITATIONS:

1. Study is restricted to 215 samples collected from Dombivli city

### RESEARCH METHODOLOGY:

- Primary data is collected through Google form questionnaire.
- Secondary data is collected from the various sources like research papers, online published articles, reference books and websites.

Technique used for data analysis:

Dichotomy test, frequencies table for multiple responses, Chi square test using SPSS software

### DATA ANALYSIS AND INTERPRETATION

Primary data is collected from 215 respondents from Dombivli area through Google form.

Case Summary						
	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
Gender*\$Investment20	215	100.0%	0	0.0%	215	100.0%

Following table indicates the frequency of investment preference of 215 investors, towards different types of investment.

Gender*\$Investment 19-20 Cross tabulation							
			Investment preference in 19-20				Total
			Fixed Deposit	Shares & MF	Gold and Silver	Crypto Currency	
Gender	Male	Count	95	76	51	15	130
		% within Gender	73.1%	58.5%	39.2%	11.5%	
	Female	Count	60	34	41	6	85
		% within Gender	70.6%	40.0%	48.2%	7.1%	
Total		Count	155	110	92	21	215
Percentages and totals are based on respondents.							
a. Dichotomy group tabulated at value 1.							

During 2019-20, Highest preferred investment was Fixed Deposit with banks. Out of total 73.10% males, and 70.60% of females preferred to invest in it. Whereas overall parentage for shares & Mutual fund are low as compared to Fixed Deposit .

Gender*\$Investment 20-21 Cross tabulation							
			\$Investment21 <sup>a</sup>				Total
			Fixed Deposit	Shares & MF	Gold and Silver	Crypto Currency	
Gender	Male	Count	70	87	59	20	130
		% within Gender	53.8%	66.9%	45.4%	15.4%	
	Female	Count	43	49	45	7	85
		% within Gender	50.6%	57.6%	52.9%	8.2%	
Total		Count	113	136	104	27	215
Percentages and totals are based on respondents.							
a. Dichotomy group tabulated at value 1.							

During the year 20-21, there is slight decrease in the % of Fixed Deposit, it falls to 53.80% in case of males and 50.60% in case of female as against earlier year 73.10% and 70.60% respectively. Overall hike in preference given for shares and mutual fund can be seen in the above table. In case of Male and Female, Investment % rose to 66.90 and 57.60 respectively.

\$Investment 19-20 Frequencies					Ranking
		Responses		Percent of Cases	
		N	Percent		
\$Investment20 <sup>a</sup>	Fixed Deposit	155	41.0%	72.1%	1
	Share Market & MF	110	29.1%	51.2%	2
	Gold & Silver	92	24.3%	42.8%	3
	Crypto Currency	21	5.6%	9.8%	4
Total		378	100.0%	175.8%	
a. Dichotomy group tabulated at value 1.					

\$Investment 20-21 Frequencies					Ranking
		Responses		Percent of Cases	
		N	Percent		
\$Investment21 <sup>a</sup>	Fixed Deposit	113	29.7%	52.6%	2
	Share Market & MF	136	35.8%	63.3%	1
	Gold & Silver	104	27.4%	48.4%	3
	Crypto Currency	27	7.1%	12.6%	4
Total		380	100.0%	176.7%	
a. Dichotomy group tabulated at value 1.					

Gender * Demat 19-20 Cross tabulation					
Investors with Demat Account in 19-20			Demat 1920		Total
			No	Yes	
Gender	Male	Count	54	76	130
		% within Gender	41.5%	58.5%	100.0%
	Female	Count	52	33	85
		% within Gender	61.2%	38.8%	100.0%
Total		Count	106	109	215
		% within Gender	49.3%	50.7%	100.0%

Gender * Dmat 20-21 Cross tabulation					
Investors with Demat account in 20-21			Dmat2021		Total
			No	Yes	
Gender	Male	Count	39	91	130
		% within Gender	30.0%	70.0%	100.0%
	Female	Count	36	49	85
		% within Gender	42.4%	57.6%	100.0%
Total		Count	75	140	215
		% within Gender	34.9%	65.1%	100.0%

The above tables shows hike in Demat Account opened in 2020-21. It noted overall increase of 14.42%. An increase of 65.12% is noticed as against 50.70% in 19-20.

Perception of Investors towards Crypto currency

		Gender			
		Male		Female	
		Count	Column Valid N %	Count	Column Valid N %
How you	Investment	35	26.9%	13	15.3%

look at crypto currency	Liquid Asset	9	6.9%	2	2.4%
	Both	15	11.5%	1	1.2%
	None	71	54.6%	69	81.2%

Maximum percentage of Inventors considers Crypto currency as an investment. Higher percentage of male considers it as an Investment as well as Liquid asset. Maximum number of investors has not commented on the same due to lack of awareness and threat of banning of the currency in India.

Following table shows the Investors beliefs:

Case Processing Summary						
		Cases				
		Valid		Missing		Total
		N	Percent	N	Percent	N
Gender * FDIntDec		215	100.0%	0	0.0%	215
Gender * CCimportance		215	100.0%	0	0.0%	215

Crosstab								
Decrease in FD interest and increase in market index prompted investors towards share market.			Decrease FD interest and increase in Sensex					Total
			Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	
Gender	Male	Count	71	23	7	18	11	130
		Expected Count	64.7	23.6	10.3	21.8	9.7	130.0
		% within Gender	54.6%	17.7%	5.4%	13.8%	8.5%	100.0%
	Female	Count	36	16	10	18	5	85
		Expected Count	42.3	15.4	6.7	14.2	6.3	85.0
		% within Gender	42.4%	18.8%	11.8%	21.2%	5.9%	100.0%
Total		Count	107	39	17	36	16	215
		Expected Count	107.0	39.0	17.0	36.0	16.0	215.0
		% within Gender	49.8%	18.1%	7.9%	16.7%	7.4%	100.0%

Chi-Square Tests			
	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	6.344 <sup>a</sup>	4	.175
Likelihood Ratio	6.275	4	.180
Linear-by-Linear Association	1.763	1	.184
N of Valid Cases	215		

a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 6.33.

There is no association between decrease in fixed deposit interest rates and increase in share market index.

There is association between decrease in fixed deposit interest rates and increase in share market index.

Observed value for df4 = 6.344 < tabulated value 9.488

Therefore according to chi square test null hypothesis is accepted

Crosstab								
Crypto currency will gain importance in near future								Total
			Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	
Gender	Male	Count	18	29	49	27	7	130
		Expected Count	13.9	23.6	56.2	27.8	8.5	130.0
		% within Gender	13.8%	22.3%	37.7%	20.8%	5.4%	100.0%
	Female	Count	5	10	44	19	7	85
		Expected Count	9.1	15.4	36.8	18.2	5.5	85.0
		% within Gender	5.9%	11.8%	51.8%	22.4%	8.2%	100.0%
Total		Count	23	39	93	46	14	215

	Expected Count	23.0	39.0	93.0	46.0	14.0	215.0
	% within Gender	10.7%	18.1%	43.3%	21.4%	6.5%	100.0%

Chi-Square Tests			
	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	9.251 <sup>a</sup>	4	.055
Likelihood Ratio	9.641	4	.047
Linear-by-Linear Association	5.392	1	.020
N of Valid Cases	215		
a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 5.53.			

There is no association between genders perception and importance of crypto currency

There is association between genders perception and importance of crypto currency

For df of 4 observed value 9.251 < tabulated value 9.488

Null hypothesis is accepted

### CONCLUSION AND SUGGESTIONS

1. Due to pandemic there is continuous reduction in financial health of Indian economy, which results in sharp fall in interest rate of fixed deposit
2. Rise in BSE Sensex on account of the financial measures taken by Government of India results in Change in perception of investors towards share market. They have started opening Dmat accounts and preference is given for investing in share market.
3. Crypto currency is a new alternative of investment has not yet gain confidence of investors due to lack of awareness and legality issues of crypto currency in India
4. Proper study of crypto currency and inclusion of the block chain system in programmes like financial awareness will boost the investors' confidence.
5. Proper knowledge of fundamental and technical analysis will serve the purpose of investing in share market.

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**A STUDY OF CHALLENGES ON EMERGING GLOBAL MARKETING TRENDS**

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**ABSTRACT**

*In the 21st century, organization, companies are drastically altering their business and marketing strategies to get closer to their customers, under competitive weakness, threats, and strengthen competitive opportunities advantages. There are changes confronting managers in the 1980s were unprecedented, the 1990s display even greater diversity and turbulence. The problems to management include escalating national and international competition, educational, political and eco-nomic upheaval, the dominance of the society customer, and increasing market uncertainty complexity.*

*In the world market requirements for competing globally are both different and more demanding than competing domestically. Differences in customs, languages, culture, politics, currency, and trade practices create risks and uncertainty for new market entrants. The social and political changes that occurred in Eastern Europe.*

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**1. INTRODUCTION**

In the 21st century, organization, companies are drastically altering their business and marketing strategies to get closer to their customers, under competitive weakness, threats, and strengthen competitive opportunities advantages. There are changes confronting managers in the 1980s were unprecedented, the 1990s display even greater diversity and turbulence. The problems to management include escalating national and international competition, educational, political and eco-nomic upheaval, the dominance of the society customer, and increasing market uncertainty complexity.

Every Successful manager recognizes the mandate for adapting knowledge and skill to the turbulent and rapidly changing global environment. They seek to save the cost, reduce costs, create more flexible organizational designs, lay out and build competitive advantage around the core competencies of the business organization. The Core competencies are what a company does best, as illustrated by Gillette's skills in developing shaving products. To Gaining competitive advantage often requires cooperation because a single organization may need to draw from the knowledge and skills and resources of other business organizations. The global business challenge centres on two important competitive issues. First, business organization with the skills and resources for competing beyond their domestic local markets has major opportunities for development growth. And these opportunities are not restricted to manufacturing and service industry giants. Second, to maintaining a competitive position in the domestic local market requires knowledge and skills of key competitors in the global marketplace. The successful competitor in domestic local markets keeps informed of foreign competitors' strategies and strengths. The New market arenas are rapidly developing through the world. The Pacific Rim countries, Western Europe, Eastern Europe, and other regions offer promising markets and new sources of competition as they change and develop.

In the world market requirements for competing globally are both different and more demanding than competing domestically. Differences in customs, languages, culture, politics, currency, and trade practices create risks and uncertainty for new market entrants. The social and political changes that occurred in Eastern European country.

**2. SCOPE AND OBJECTIVE**

**1. Market Environment:** The Technological changes, market uncertainty risks, analysing the outlook of the world market with the recent new trends and SWOT analysis

**2. Market Drivers:** The world Market elements situation, alongside opportunities development chances of the market in the years to come, growing demand, save cost, reduction in cost, market opportunities, and challenges

**3. Industry Trends:** The Regional revenue, status, and outlook, market division investigation including subjective qualitative and quantitative exploration consolidating the effect of financial, economic and non-economic aspects

**4. Competitive Landscape:** The Manufacturers analysis, development trends, market portion of significant players, alongside the new company's and techniques embraced by major parts in the previous years

**5. Product Revenue for Top Players:** The Market share, rate of growth, current market situation analysis, comprehensive company profiles covering the product and services offerings, key financial information, recent developments growth SWOT analysis, and strategies employed by the major role of the market players

**6. Market Segment:** The various types and applications, local regional and country level analysis integrating the demand and supply forces that are influencing the development growth of the market

**7. Sales Revenue:** In World Market share, pace of development and growth market supply and demand, current showcasing research and development.

### 3. RESEARCH METHODOLOGY

This research is descriptive in nature. The Secondary sources of data have been used for this Secondary data has been collected from different published sources like books, Bulletin, news, Journals, newspapers and magazines, and web sites etc.

### 4. GLOBAL MARKETING TRENDS:

Today's all types business entrepreneur's leaders know that digital technologies hold the potential to transform nearly each and every aspect of our whole world. Every Organization are exploring advanced analytics, AI, cloud computing, and the internet of things and many are seeing early gains. As companies are more learning, however, these technologies aren't a substitute for the bonds we share as human's resources.

#### i. Authentically leading with purpose.

The concept of brand purpose is not new, it is 's more important than ever in directing strategic choices the all organization. It articulates why an organization exists, what is problems it wants to solve, and what it wants to be to each and every human it touches through its work. Not every company views purpose as an all-encompassing ideal; some consider it a mere gimmick to capture market share value. However, reveals that companies that lead with purpose and build around it can be achieve continued loyalty, consistency, and relevance in the lives of society consumers. Indeed, purpose is assist to businesses create deeper connections with Consumer s, better serve communities, to attract and to retain talent, and achieve greater results in the overall process.

#### ii. To Elevating the human experience.

Everyday Applied thoughtfully, digital technologies can better connect organizations to their shareholders, director's customers, partners, various government agencies, and employees. When tech-enabled interactions lack a human touch, however, it can be make people feel isolated, underrepresented, and unfulfilled. In fact, the rapid pace of technological innovation and change has led some organizations to make short-sighted decisions to solve narrowly defined problems rather than think through more sustainable, human resource -centric solutions. There is resulted in what we call "experience debt" an accumulation of unmet needs for human being connection. To pay this down, organizations can focus on aligning customers, the workforce, and partners to a common purpose and leveraging technology in ways that enrich, rather than dampen, the human spirit.

#### iii. To Leveraging fusion strategy risk—

The new world of business is blend. In conventional boundaries between organizations and industries are disappearing. In consequently, brands are moving from being isolated entities to being members of far-reaching reliable ecosystems that can be address of consumer needs more holistically. In such fusion becoming the norm, even leading big companies are seeking ways to establish themselves in these much broader reliable ecosystems risk and uncertainty being disrupted by the new competition. Every organization can expand to new business areas by looking beyond industry boundaries to address consumer's needs, identify opportunities for growth and partnerships, and to create new value for customers in the globe market. Every businesses organization that solves unmet needs through smart, open reliable ecosystems can displace competitors that are unwilling or unable to do the same.

#### iv. To Amplifying consumer participation to unlock new value.

The technology has created new opportunities for people customer's s, citizens, and communities to engage directly in shaping, influencing, building, and co-creating popular brands. Every marketer has recognized that to keep up with competition in market, they need to evolve and to create dynamic, two-way engagement across all the stages of the consumer journey and the product life cycle. Yet identifying how, and in which areas, to integrate the people in the society customer participation can be overwhelming. To using the models and approaches best suited to an every organization's brand and marketing strategy whether it's customization, community building, or crowdsourcing, for example the businesses can turn willing customers into new brand ambassadors, influencers, advocates, collaborators, new ideas and even innovators.

#### v. To Safeguarding trust in business organisation.

There are every Customers, regulators, and the media expect brands to be open, honest, and consistent across all aspects of the business organisation from products and promotions to workforce culture and partner

relationships. In an era of connected new technology and big data analytics, this may require companies to create a structure that protects and security customer data and privacy, detects threats to data protections and security, and promotes the ethical use of AI. The business organizations can be build a higher level of trust with stakeholders by proactively and transparently demonstrating good behaviour and, in the process, create and build more relevant and less invasive customer experiences.

#### **vi. To Diffusing agility across the business organization.**

All over business organization s is looking to more adaptive attractive models to keep up in today's modern and dynamic social, economic, and cultural environment. To Keeping pace with change necessitates nimble decision-making across the enterprise particularly in marketing, where increasingly discriminating buyers are adopting and disposing of brands more frequently and casually. To Leading brands are restructuring their marketing principles and functions, leveraging the power of real-time data and digital online marketing platforms, and using those insights to design more personalized human resources experiences in an agile manner. Agility is both a framework and mind-set, which often requires an organizational shift, new internal capabilities, and cross-functional collaboration.

#### **vii. To Valuing the business organization's most important asset is talent.**

A business organization's people arguably its greatest strength now include a diverse mix of individuals, including brand ambassadors, gig workers, social influencers, and partners. These people reside both inside and outside the walls of the business organization. It is important for business organisation leaders to the recognize that their workforces often comprise individuals with different backgrounds, perspectives, experiences, and goals, and to acknowledge and value each one. We have understood how best to engage customers, many marketers are embracing the challenge of creating deeper, more meaningful employee engagement, but all companies suite executives can make efforts here. Majority Business leaders who nurture their people will enable them to evolve and develop new skills and relationships, while engendering loyalty toward the popular brand and the employer.

### **5. CHALLENGES**

In the 21st century, savvy companies will have to develop dynamic strategies designed to assist them stay one step ahead of changes in the global market. But crafting a sound global strategy depends on one's global maturity. If we are serve for entering the global marketplace, we are face different barriers than if we are already in it. There are some challenges will be unique to the business organization. Others will impact every company and firm.

#### **a. Economies Dependent on Each Other in market**

The global market economy is more intertwined than ever. The United States, China, Japan, England and Europe are major role players this economy. They are fare greatly impacts on it. All there are currently faring better than expected. The Europe country looks like it's turned a corner. A China has been a hard fall but did not crash. And the United States is beating expectations for 2013. But this positive trend could change positively and quickly. We are keeping an eye on the world economic indicators. The big economies now dependent on each other its important factors to know what's going on throughout the world. The Currency exchanges rates and the purchasing manufacturer's index (PMI) are two indicators that can be help you gauge the potential for downtrends.

#### **b. Corporate Social Responsibility in the Marketplace**

The world global market Go Green means eco-friendly movement is picking up steam. It is more and more countries are enacting tough environmental laws and rules and regulations. The European Commission, for example, issued a new definition and strategy for corporate social responsibility (CSR) for 2011 to 2014. Businesses will be needed to create a strategy to deal with these new laws and rules and regulations. Some company's lenders can take a legal approach like Ford Motor Company and bring products up to the standards of the law only or an activist approach like the Whole Foods Markets and embrace the environmental movement e.g. eco-friendly . Or, maybe you take something in between.

#### **c. Global Branding for Global Market**

In the whole world Globalization is changing brand strategy and tactics. What are the works in Great Britain may not work in China. Pepsi's slogan "Pepsi Brings You Back To Life" had a negative connotation when translated into Chinese, hurting sales in the market. all Businesses organizations will have to "globalize" their brands". Some country Hiring local base skill, talent and agencies helps. So does having managers with senior business organization leader potential work in key markets abroad.

**d. Emergences of Everything Is A Service Strategy**

The emergence of everything is a Service strategy is structuring and creating new market offerings that will both satisfy and generate consumer's new demands for technology-enabled product and services. These solutions will in some cases displace conventional service delivery options and raise expectations as clients decide on how they want their product and services delivered. Some Smart companies will look to outsourcers with a combination of BPO, LPO, KPO, ITO, application, and consulting expertise to help deal with this shift, whether its providing helpdesk product and services or integrated customer support services.

**e. Impact of China on Global Market in the world**

A China's emergence as an economic entity changes every day everything. For buyers, it means a wider choice of products and services and price points. For customers, it means the availability of low-cost goods and services. The risks, uncertainty and opportunities in China carefully before developing a China strategy.

**6. CONCLUSION**

The globalization liberalization and privatization policy is an imperative for many of today's business organization companies. It is a reality that will present new barriers and challenges. The globalization of the world's economy, the increase in environmental awareness to legislation, global branding issues, the emergence of Everything as a product and Services, and the impact of China are just a few of the challenges we shall face because of globalization. Every company shall how well we will deal with these challenges if we shall survive in the 21st century in the new world.

Those countries in favour of global market theorize that a large size wider array of products, services, technologies, medicines, and knowledge will become available and that these developments growth will have the potential to reach significantly larger maximum satisfaction customer bases. This means larger volumes of sales quantity and exchange, larger development growth rates in GDP, and more empowerment of individuals and political systems through acquiring additional resources and economic financial capital. These are benefits of global market are viewed as utilitarian, providing the best possible benefits for the largest number of society people.

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**A STUDY OF GOODS AND SERVICE TAX IMPACT ON SMALL AND MEDIUM BUSINESS ENTERPRISES**

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**ABSTRACT**

*In India the Goods and Service Tax is biggest Indirect Tax Reform. The GST bills are passed in Rajya Sabha and discuss in State legislative assemblies. Indirect Tax GST replace other taxes such as Excise, Service Tax and VAT into a single tax structure. As per industry experts GST eliminate the cascading effect of multiple central and state taxes. Several start-ups and small medium enterprises have adverse impact that makes come into the picture. GST is destination based consumption taxes which are levied at multiple stages of production and distribution of goods and services. It also combined in other various state and local taxes such as entertainment tax, excise duty, surcharge, octroi, vat etc.*

*One of the essential features of the GST is that goods and services are considered same and within the supply chain, they are taxed at a single rate till they reaches to consumer. The tax reform is equal to large enterprises and small and medium enterprises uniformly. GST is dual based tax as both central and various state govt. will charged GST Separately. Central govt. will levy CGST and state govt. will levy SGST.*

*Small and medium enterprises are the primary growth driver of Indian economy. Same in India contribute 50% of the industrial output and 40% of India's total export. SMEs are a leading employment generating sector and provide economic development of a country. For introduction and implementation of GST small and medium enterprises are not very convinced. To study overall effect of GST on small and medium enterprises business it is necessary to study pros and cons of the new regime from a small and medium business perspective.*

*Keywords: GST, Small Scale Industry, Indirect Tax, Positive Impact, Negative Impact.*

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**INTRODUCTION**

Goods & services Tax is an Indirect tax on the sale of goods & services and it is levied in India. The single GST replaces all the Central and State level taxes. GST is one tax for whole nation which makes India one unified common market. GST is single tax on supply of goods & services from the manufacturer to consumer. GST is biggest indirect tax reform in India. GST is destination based tax. It is collected by the State where the goods are consumed. Small and medium enterprises generate large employment opportunities due to utilisation of labour power for the production of consumer commodity.

The goods and services tax was launched by the former President of India and Prime minister in India on 1<sup>st</sup> July 2017.

**REVIEW OF LITERATURE:**

1. Garg (2014)<sup>1</sup>, analysed the impact of GST on Indian tax scenario. He concluded that GST is the most logical step in Indian indirect tax reforms. Further he mentioned that experts say that GST is likely to improve the tax collection and boost the economic development of the country
2. Khurana, A. and Sharma, A (2016), in their paper 'Goods and Services Tax in India- A Positive Reform for Indirect Tax' highlighted the objectives of GST and reforms in indirect taxation system in India. And conclude after implementation of GST, manufacturer, wholesaler and retailer can be easily recovered input taxes in form of tax credit.
3. Shefalidani, (2016) stated impact of GST on Indian economy in the study in which some benefits of GST such as one nation on tax, free from cascading effect, increase consumption due to cascading effect, transparency and GDP growth are studied. Petroleum products, real estate, and liquor are free from GST.
4. Dani, S., (2016) in her research study revealed that GST being a system replacing all indirect taxes might hamper the progress of the country as the attempt to implement it is not being made whole heartedly.
5. Nath, B., (2017), in his paper on 'Goods and Services Tax: A Mile stone in Indian Economy' discussed benefit and impact of GST on Indian economy and also conclude that GST has a positive impact on various sectors and industries.
6. Kawle, S. P. and Aher, L., Y., (2017) in their research paper highlighted the working of GST in India along with its impact on the Indian economy.

**OBJECTIVES OF THE STUDY:**

The major objectives of the study are:

1. To study about introduction and implementation in India.
2. To study impact of GST on Small and Medium Enterprises.
3. To study the challenges of GST implementation.
4. To understand concept of goods and services tax law in India.

**HYPOTHESIS:**

For testing purpose no particular hypothesis has been selected as the study of GST law covers wide range of study.

**RESEARCH METHODOLOGY:**

This research paper is based on secondary data. The data has been collected from journals, newspaper, websites and articles, social media, news channels, etc.

**SCOPE OF STUDY:**

This study is conducted on the basis of secondary data. So the results are based on research study.

**LIMITATIONS OF THE STUDY:**

1. Only secondary data is used for study.
2. Secondary data may not be accurate.
3. There is limitation of time.

**POSITIVE IMPACT OF GST****1. Easy To Start A Business:**

Due to uniform, GST help standardised the process for stating a new business registration under GST is easy as there is no excess complication for business with multi state operation follow raise tax rule applicable to different states.

**2. Market Expansion:**

With implementation of GST big corporation received goods from small and medium enterprises within locality and reduces the overheads due to which small and medium enterprise segments expands its activities to reach across the border.

**3. Reduce Cost:**

As the GST is a neutral tax it reduce time consuming border tax procedure and toll check and encourage supply of goods across border. So the logistical cost for the business manufacturing large goods will be reduced. Due to cost reduction the survival of small and medium enterprises is possible.

**4. Dealing in sales and Services:**

Due to introduction of GST there is no difference in sales and services so it is helpful for small and medium enterprises which are dealing with sales and services model of business as the taxation is simplified and calculated on total turnover.

**5. Unified Market:**

Due to GST there is flexibility for transfer of goods across the states which reduce business cost. The multiple taxes impose by State and Central Government was eliminated and there is one tax called GST.

**6. Capital Goods:**

Under GST resumed the entire amount of input tax credit is availed in the year of purchase for the purchase of capital goods. This helps and support make in India campaign.

**7. Low Tax Rate:**

GST allow small and medium business at low tax rate where the turnover is between 10 to 15 lacks rupees will have to pay the taxes at the lower rates.

**B. NEGATIVE IMPACET OF GST:**

There is few negative impact of GST which are as under:

**1. Willingness of staff:**

The staffs of small and medium scale of enterprises are not familiar will using computer and web porters so they require the help of skill technical person to use technology platforms like GST.

**2. Levy of selective tax:**

Due to GST there is increasing gap and not support unified market ideology as GST will not applicable on alcoholic liquor and petroleum products.

**3. Technological Challenges:**

GST structure is different from existing tax structure small and medium enterprises are unable to adopt digital complex tax compliances they require need of expert technological consultants which incurred additional expenses.

**4. Monthly Returns:**

Under GST in financial year there will be 36 return to file due to which it require monthly closing books which take a lot of time.

**5. Mandatory Registration:**

The business is which are doing activities related to e-commerce should get register under GST irrespective of their annual turnover and they are illegible for trash old exemption.

**6. Mismatch in society:**

Due to same tax structure for luxury goods and normal goods it makes rich to be richer and poor to be poorer.

**7. Increasing Cost:**

To comply all the procedure and formality on GST portal, filling of GST returns etc., increase the cost to higher the experts person, consultants which increase the cost of business.

**SUGGESTION / MEASURES TO OVERCOME CHALLENGES OF GST**

1. The govt. must take initiative to educate small and medium enterprises about various provisions, producers and compliances require under GST
2. On the new tax regime it is essential for businesses to provide training to their staff for the compliances deadlines.
3. Step should be taken through the various seminars, road show, conferences, webinars and training Sessions to increase the awareness of GST.
4. Small and medium enterprises take corrective measures in protective manners in order to minimise difficulties in their sectors due to GST implementation.

**CONCLUSIONS:**

Goods and service Tax is a long term skill introduce in India with objective to rise in output, employment opportunity and economic development and progress of India. But in the primary stage of implementation it increases administrative difficulty complies tax.

It will also increase competition between small and medium enterprise by unify Indian market. Based on the above discussion we can say that by minimising the negative effect of the new tax regime on small and medium enterprises the GST system will boom the Indian industry and small and medium enterprises in such a way to comply objective of GST and economic of development of India.

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**A STUDY ON THE USAGE OF SOCIAL MEDIA BY PUBLIC RELATIONS PRACTITIONERS**

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**ABSTRACT**

*The Business Environment in the twenty-first century uses both online and offline media which complements each other. If the Businesses want to gain competitive advantage, then it is important to combine traditional communication techniques with a successful social media strategy. Social media has recently become one of the crucial public relations tools to reach out to the different communities and to the media. Social media tools like Blogs, Twitter and Facebook, give firms the opportunity to directly connect with the consumer and media simultaneously on a real time basis.*

*The wave of technology has opened up the channels of communication like never before. The widespread use of social media has considerably changed the way people communicate and share information today. Public Relations Practitioners use Social Media every single day to get the word out about clients, to communicate with customers and to respond to questions or their problems. This transition has overhauled the way companies and Public Relations practitioners engage with the media. Online Reputation Management for a company is now a strategic approach whose importance cannot be undermined. Digital media and online social media rule the roost nowadays enabling the company to reach out constructively to vast publics in no time. This Research Paper is an attempt to find out the extent to which Indian Public Relations Practitioners use Social Media tools for Media Relations and indicate the future of Public Relations in the realm of New Age Media.*

*Keywords: Public Relations, Social Media, Social Media Tools, Online Reputation Management, New Age Media*

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**INTRODUCTION**

The extensive use of social media has radically changed the way people communicate today and share information. Public Relations (P.R.) practitioners use social media daily to get the word out about clients, to communicate regularly with customers and to respond to their problems or grievances. Twitter, Facebook, LinkedIn and other social sites have become crucial in a P.R. Practitioner's Toolkit. This study explores how P.R. practitioners use the power of social media to connect, and maintain favourable relationships with the journalists as against the traditional method of one-on-one meetings or telephonic conversations with them. The findings of the study revealed that some of the platforms used by P.R. practitioners to engage with the journalists include Facebook, Twitter, LinkedIn and various P.R. groups exist on social platforms. Social Media is an extremely important communication tool which has changed the dynamics of public relations and its practice. It is an indispensable P.R. Toolkit since it provides features from research to evaluation and delivers meaningful content to wide publics effectively as compared to the traditional media.

Public Relations Society of America defines Public Relations as a strategic communication process helping to build mutually beneficial relationships between organisations and their publics (PRSA 2009). Public Relations is a strategic communication conduit between an organisation and its stakeholders. Since it helps organisations and individuals to communicate its key messages with external public through Media, it has to craft effective communication strategies. P.R. professionals have to reach out to the target audience either by adopting a direct approach or via third party influencers. Press release, Public Forums, Opinion Articles, events etc. are a few tools used by P.R. professionals.

The wave of technology has opened up the channels of communication like never before making the news being available on real time basis. Journalists have joined the new age media bandwagon, portals and use social media to connect, share stories and opinion articles. This transition has overhauled the way companies and P.R. practitioners engage with the media. Online reputation management for a company is now a strategic approach whose importance cannot be undermined. Digital media and online social media rule the roost nowadays enabling the company to reach out constructively to a vast public in no time. Effective Media Relationships are based on trust and value which can reap in a lot of revenue to the company through public branding.

**RESEARCH METHODOLOGY:**

The deductive approach of research is employed for this study to find out the influence of social media on the P.R. Industry. Secondary Data Collection method is employed comprising of both qualitative and quantitative approaches for the analysis.

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**OBJECTIVES OF THE RESEARCH STUDY**

1. To Explore the Role of Social Media and its Benefits to the Public Relations Industry.
2. To Find out the extent to which Indian Public Relations Practitioners use Social Media Tools for Media Relations and to indicate the Future of Public Relations in the New Age Media context.

**ANALYSIS AND DISCUSSION**

As per the analysis of the secondary data available, we find that Social Media can be regarded as absolutely necessary and compulsory for the functioning of P.R. Industry. A 24/ 7 News Channel has benefitted the P.R. Industry by staying updated with the regular occurrences taking place in the external environment. This keeps them updated and in touch with the customers to enhance customer satisfaction and the business base fuelling its growth further. Further analysis of the data exhibits that social media helps to enhance the overall focus on the consumers using the P.R. Industry. The power of Social Media is such that it helps the Industry to remain connected with the multiple segments of the customers. This allows them to conduct the right level of communication, coordination and effective relationship building with the customers. The reach and recall so generated helps to spread awareness and leads to improved industry reputation due to the increase in the numbers of customers via effective marketing and advertising.

Secondary Data Analysis indicates that social media enhances communication and customer relationship management in the PR Industry. Also, it reiterates the economic viability and affordability of the various Social Media Tools that are almost free leading to effective and sustained P.R. Operations. The medium is available 24/ 7 generating loads of information about the external environmental parameters. We can therefore infer that Social Media is an effective tool for the P.R. industry operations as it helps in spreading awareness among customers and for effective marketing and advertising.

**INTERACTIVE WEB:**

Due to the Emergence of Interactive Web 2.0, the Social Media Applications have gained tremendous popularity among the internet users leading the business houses to interact with the stakeholders via the social media. New age interactive media has classified four types of modern media namely Mainstream, Hybrid, Social Outlets and Owned Media. Mainstream includes the traditional Mode of Communication like broadcast or print medium. The Hybrid Modern Media is the Digital version of the Traditional Media like Livemint.com, Economic Times Online etc. Social Media Platforms have outlets like Facebook, LinkedIn, Twitter and YouTube. And the Company's owned properties like website, blog, application etc. comprise the owned platform which is successfully used for new product launches or to state company's milestones.

Social Media is an extremely important communication tool which has changed the dynamics of public relations and its practice. It is an indispensable P.R. Toolkit since it provides features from research to evaluation and delivers meaningful content to wide publics effectively as compared to the traditional media.

**BENEFITS OF SOCIAL MEDIA IN PUBLIC RELATIONS**

Over the past few years, a growing number of social media sites have sprung up, suggesting people are interested in sharing their experiences and connecting with each other. Social networking enables instant sharing of information and, as the number of people using the Internet continues to rise, with many bloggers blogging themselves, the releases that they post can be easily drawn and further posted by other bloggers and online journalists. This ensures faster coverage of the news and ensures it reaches a larger target audience with widespread coverage. Social media can be used to help improve the public's awareness of the company and its overall business image as blogging and online mentions help to spread the word about the company. When company establishes its presence online, it will become more visible which can be used to promote their business. More readers will lead to more followers enabling effective communication. With social media's ease of use, everyday people can post their thoughts on a variety of topics. Social networking sites allows people to ask questions and get answers quickly from any number of readers, with varying levels of enthusiasm and experience. By using these communication channels, the companies can develop relationships with their readers. This in turn can be used in P.R. activity and stakeholder targeting to ensure that the posts are relevant and of interest and therefore chances are that they are more likely to be read. Building on this initial relationship to engage and keep readers, and anyone they forward the blog link to, increases traffic to the company's website. This allows to gain a better standing on search engines and attracting even more readers. Companies are also able to know what people are saying about their business so they can respond quickly to anything that arises or use their followers to dispel bad 'word of mouth'.

**There is an ease in integration as** most people know how to use one or more social media tools. The companies should aim to maximise its reader base. The more the people know about the company, and its

activities, chances are that the business will succeed and attract loyal customers. Including links to relevant information and supporting documentation within the online content gives the copy authority which, in turn, means search engines notice it. If the company links to established domains, then the web ranking will improve. Consequently, bloggers and online journalists may even include links to it or, give a mention within their own content. To ensure that the website climbs the search rankings, care should be taken to write about strong, topical and engaging topics to connect with the readers. Research proves that 'likes' and 'links' in Twitter are recognised by search engines and this potentially improves the companies' search rankings.

Social media allows companies to understand and decipher public opinion. It also helps them to increase the customer base, understand customer's preferences and then use this information to implement future Public Relations activities. Social Media keeps the company in the public spotlight and maintains strong connect with its current and potential customers.

Research carried out on Secondary Data exhibits that Social Media has a profound effect on Public Relations, creating new opportunities and challenges for the companies' brands. It allows brands and consumers to engage across a variety of channels on a real-time basis. This has led to an increased demand for brands to address consumer inquiries timely and in a cost effective manner. Powerful Digital Influencers have emerged due to the reach of Social Media and brands are reaching out to them for brand endorsements. Social media has given brands the opportunity to reach consumers on a variety of channels like Facebook and YouTube Video. These channels lead to the brand's development and simultaneously help consumers feel a deeper and personal connect with the brands. While it gives brands the opportunity to engage with consumers on many channels, it's a two-way communication. Social media gives consumers the chance to engage with brands on a variety of channels wherein, the Consumers can "like", comment on, and share brand content. This helps to spread brand awareness. This platform also gives the consumers a powerful voice to express their criticism and share negative experiences if they have experienced. Because of the transparency of the platform, these complaints are visible to the media and other consumers as well. Therefore, Brands must respond quickly to prevent these complaints from increasing leading to negative publicity.

#### **FUTURE OF PUBLIC RELATIONS IN NEW AGE MEDIA**

Social media usage comes with its set of responsibilities towards the consumers. These platforms have raised customer service expectations. The days have far gone when the consumers could only interact with brands during business hours and from Monday to Friday. Consumers can now interact with brands on social media 24 hours and 7 days a week, leading to social monitoring hours extending to nights and even on the weekends. As news and hot issues often trigger on social media, brands that monitor their social channels very closely and address these issues tactfully can proactively control the conversations, rather than reacting to them. PR practitioners use social media every single day to connect to the clients, to communicate with customers and to respond to questions or problems. Twitter, Facebook, LinkedIn and other social sites have grown to become important tools in a PR practitioner's overall toolkit.

Social Media has revolutionised and changed the manner of corporate communications, thereby affecting the ways in which public relations campaigns are designed, disseminated and evaluated. It is no longer a one-way communication. Now, the various publics also have a voice and can start a dialogue and trend. Earlier on, the agenda of P.R. was to garner coverage on television, radio and newspapers through the traditional print and electronic media. The Research carried out on Secondary Data reflects that with over 75% internet surfers using social media, this media has provided P.R. practitioners an excellent means to collect and monitor information, offer opinion and engage in a constructive dialogue with their publics on multiple issues. As the lines between online and offline promotion has become blurred, the P.R. Practitioners are shifting towards Social Media.

The Journalists are no longer only passively receiving information through new release and media kits from the P.R. Practitioners to get publicity for their organisations. The Journalists are in fact sending their own needs at the Practitioners through the social media outlets. Hence. We can summarise that adaptation to the new age media environment will be crucial if the organisations want to prosper with their Media Relations activities.

#### **SUGGESTIONS**

Incorporating Social Media in the P.R. Plan is crucial, considering the dynamics of P.R. and New Age Media. Each platform can be used uniquely to aid the P.R. activities and help in its value addition. Facebook can be leveraged for groups, call to action, button for donations, mentions and other Facebook Professional Services to assist in P.R. Activities.

Twitter can be a great tool to send a quick message about a new launch, activity and promotion and provides any kind of update. Trending hashtags can be a great way to reach out to people and track what the audience

and others are commenting about the company and brand. Twitter allows multiple ways to conduct research on company, brand, competitors etc. Special apps on Twitter also allow live stream and connect with the audience. LinkedIn was found to be another tool to connect with the people and influencers. This can lead to a better insight into the Industry and for also circulating relevant information. Instagram Platform should also be used for effective audience engagement and awareness through visuals. This can prove to be an excellent platform for promoting events and involving the customers before, during and after the event. LinkedIn is an excellent social media platform for B2B. This Study reflects how Social media can be used by companies to position their brands. The Product managers can easily use LinkedIn to share their company's message and successfully position their brand as a Leader in the concerned Industry.

Social Media plays an important role in Public Relations and it should be integrated in the B2B Marketing Efforts through best practices. A story can be promoted on the social media through Twitter handles, LinkedIn Pages, YouTube Channels in the boilerplates of press releases. Strategic Hashtags for buzz creation and interactions can be initiated. Videos can be produced and shared on YouTube for the Trade Media to view and post it on their social channels. News should be shared through the Social Media and a scroll on the feeds will allow the prospects to see the case studies, testimonials and latest technologies facilitating greater visibility.

Social Media can help in Reputation Management which is one of the very important roles of Public Relations. Through the Social Media, conversations can be monitored for P.R. opportunities. Employees too can become the brand advocates by sharing their stories on social media through a defined social media policy. Social media helps to create connections and in Public Relations this will prove to be very effective while connecting with the media. Social media can help to easily find more information about journalists and trade editors. The content and the beats of the Editor can be regularly followed thereby guiding on what to write through commentary and new story angles.

## **CONCLUSION**

The findings clearly reflect that social media platforms like instant messaging, social bookmarking, photo-sharing, wikis, Facebook, etc. have had a significant impact on how Public Relations Practitioners communicate. This has made possible for people and media organizations to have seamless interactions without any interruptions. Also, Social Media has led to the achievement of public relations objectives by impacting on public relations knowledge and enhancing the relationships with people. It has solicited sharing of information about latest innovations in the tools and methods of public relations, and has helped in shaping the attitude of those in Public Relations Practice.

P.R. and Social Media are based on communication but social media, with its real-time messaging, amplifies the message, allowing Public Relations to be more impactful. The content published through news releases, email, and other P.R. related means can stay longer, spread faster and reach further with the help of social media to a larger audience. In the earlier times, P.R. was targeted at investors and business partners, but social media has caused the expansion of this target group to include all people who are vital to the success of a business. Social media has led to a new area evolving called 'Relationship Marketing' by making P.R. more friendly and approachable to all business stakeholders. This Research reflects that Social Media is here to stay and it will only evolve further. Public Relations also needs to evolve to bring in synergy and maximise on the huge rewards that emanate from these two marketing elements.

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**A STUDY ON IMPACT OF COVID 19 ON CYBER SECURITY AND ITS CHALLENGES IN BUSINESS**

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**ABSTRACT**

*The pandemic has created an enormous challenge for businesses worldwide: to continue operating despite massive shutdowns of offices and other facilities. The information technology on which they have long depended – their data centers, cloud systems, departmental servers, and the digital devices their now-remote employees used to stay connected to each other and to the company's data – becomes even more vital. The rapid and unexpectedly broad disruption to businesses around the world has left companies struggling to maintain security and business continuity. The International Data Corporation, which is the premier global provider of market intelligence, reports that IT environments are becoming more complex, and cybercriminals are getting better at identifying and targeting weaknesses.*

*The findings of this study will be an effective reference for overview of the heightening technology risks to large companies around the world from cyber-attacks, and the factors driving them. It provide hint towards responding to the evolving cyber challenges facing the post-COVID-19 landscape.*

*Keywords- CyberSecurity, Cyber-Attacks, Cyber terrorism, Pandemic, Ransomware, Malware, Malspam*

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**INTRODUCTION:**

The COVID-19 pandemic has forced organizations and individuals to embrace new practices such as social distancing and remote working. Governments are reconsidering ways to ensure that their countries are stable by developing and enforcing new economic plans. Nevertheless, while the world is focused on the health and economic threats posed by COVID-19, cyber criminals around the world undoubtedly are capitalizing on this crisis. Overnight, the demands placed on the digital infrastructure have skyrocketed. Such technology also becomes a much bigger and more lucrative target for cybercriminals. Cyber security efforts need to be upgraded to prevent a second crisis from emerging: on the digital devices and networks that have become infinitely more vital to companies in recent weeks. In other words, “business continuity” has become a mandate.

The dust is still settling. And while Business leaders have rightly focused on remaining resilient through operational and financial pressures. Only now are some taking the time to step back and ask — what does the new reality look like over the coming months and next few years, and how do I prepare for it?

**CYBER SECURITY:**

Cyber security is the practice of defending computers, servers, mobile devices, electronic systems, networks, and data from malicious attacks. It's also known as information technology security or electronic information security. The term applies in a variety of contexts, from business to mobile computing, and can be divided into a few common categories

**Network security** is the practice of securing a computer network from intruders, whether targeted attackers or opportunistic malware.

**Application security** focuses on keeping software and devices free of threats. A compromised application could provide access to the data its designed to protect. Successful security begins in the design stage, well before a program or device is deployed.

**Information security** protects the integrity and privacy of data, both in storage and in transit.

**Operational security** includes the processes and decisions for handling and protecting data assets. The permissions users have when accessing a network and the procedures that determine how and where data may be stored or shared all fall under this umbrella.

**Disaster recovery and business continuity** define how an organization responds to a cyber-security incident or any other event that causes the loss of operations or data. Disaster recovery policies dictate how the organization restores its operations and information to return to the same operating capacity as before the event. Business continuity is the plan the organization falls back on while trying to operate without certain resources.

**End-user education** addresses the most unpredictable cyber-security factor: people. Anyone can accidentally introduce a virus to an otherwise secure system by failing to follow good security practices. Teaching users to delete suspicious email attachments, not plug in unidentified USB drives, and various other important lessons is vital for the security of any organization.

**Identity Management and Access Control** can be crucial components in a security architecture, and it basically involves the management of access to enterprise resources. This is a good measure that can ensure the security of systems and data. This type of security helps in the verification of users' identities before granting them access to the systems and sharing information with them.

**Mobile Security** also known as wireless security, is the protection that is in place for smartphones, laptops, tablets, and other portable devices and the networks they are connected to from the threats and risks that are involved in wireless computing.

### **SCALE OF CYBER SECURITY THREATS**

Both cyber-defense tactics and Cyber Security threats are evolving in an attempt to outdo one another. As a result, there is a growth of malicious software and threats in new forms that constantly need protection against. Any individual or organization that uses any form of network is equally vulnerable to such attacks and is a potential target.

There are three different types of Cyber Security threats that one needs to be aware of:

1. **Cybercrime:** Committed by one or more individuals who target systems for financial gain or to cause havoc
2. **Cyber terrorism:** Designed to break into systems and instill fear
3. **Cyber-attacks:** Often carried out for political reasons and aimed at collecting and/or distributing sensitive data

### **IMPACT OF COVID 19 ON BUSINESS WITH RESPECT TO SECURITY**

There have been observed a spike in phishing attacks, Malware and ransomware attacks as attackers are using COVID-19 as bait to impersonate brands thereby misleading employees and customers. This will likely result in more infected personal computers and phones. Not only are businesses being targeted, end-users who download COVID-19 related applications are also being tricked into downloading ransomware disguised as legitimate applications.

The surge in communications and the wholesale shift to operate businesses online have at the same time increased the risk of cyberattacks by an order of magnitude. They have also introduced a wide range of new risks. Organizations' perimeter security is at risk of being breached. They need always-on surveillance and real-time risk analysis for breaches at both physical and digital entry points.

Security and risk management leaders now must safeguard their companies on a massive scale, and quickly. They must ensure that their enterprises' online services and digital platforms are resilient against cyberattacks.

The IT function is under tremendous pressure, too. In some firms, IT professionals must extend remote working capacity to employees who hadn't worked from home in the past. In some cases, this includes their service partners. Many IT departments are in the middle of deploying new types of collaboration software. While that can be crucial to keeping employees synchronized (especially those working in agile teams), such software increases the risk of hacking sensitive data that now resides in less secure remote workplaces.

But it's difficult for IT functions to say no to this. Company leaders, managers and their staffs need access to internal services and applications so they can conduct operations remotely. Since many companies haven't made these applications and data available previously over the Internet or virtual private networks (VPN), security leaders are reluctant to allow access without stringent access mechanisms.

Fraudsters are well aware that many companies and their employees have opened the door wide to hacking. Cybercriminals are using the heightened digital footprint and traffic to find vulnerabilities, or to siphon off money. They are launching Covid-19-themed attacks in the form of phishing emails with malicious attachments that drop malware to disrupt systems or steal data and credentials. Attackers are creating temporary websites or taking over vulnerable ones to host malicious code. They lure people to these sites and then drop malicious code on their digital devices. Fake websites have also been soliciting donations for daily wage earners through email links. Remote working tools such as videoconferencing systems have been hacked for vulnerabilities; recent examples on Zoom are alarming.

### **COVID-19 RELATED CYBER THREATS TO BUSINESS**

Due to the increasing amount of automated attacks, cyber security incidents have also risen. A recent incident is the Experian breach which resulted in 24 million people and around 800k businesses reported their data as stolen. Another recent cyber security incident is Cognizant Technology Solutions which was hit by a ransom

ware cyber-attack that resulted in service disruption, and paid a ransom of 70 million to cyber attackers to restore its services. Twenty-five thousand email addresses and passwords were leaked online that belonged to the World Health Organization, which is one of the major groups working on fighting the coronavirus.

As stay at home orders were put in place, the use of video conferencing increased. One of these popular platforms is Zoom. The Zoom App was another recent cyber security incident which was attacked this year, and people with bad intentions gained access to private meetings, conversations, and managed to share shocking and inappropriate videos. These recent security incidents not only damaged the overall reputation and brand image of the company, but also led to a decrease of platform usage.

Cyber threats are malicious activities that seek to disrupt the digital life in general by stealing data and misusing it. These activities may include the unauthorized accessing, changing, or destroying of sensitive information, money extortion, or process interruptions. Cyber security incidents result in stolen and compromised data and target weak credentials. Weak credentials are simple passwords in terms of the complexity of the password. The end result is that the attacker knows or has modified your data.

Some different types of cyber threats that exist:

**Phishing** is a fraudulent attempt to send emails claiming to be from reputable sources to obtain sensitive data such as credit card numbers, usernames, passwords, etc. Phishing is the most common type of cyberattack. It can be prevented if the public is educated on it and if the latest technology solutions screen such malicious emails.

**Ransomware** is a malicious software designed as a means to extort money. Attackers block access to files or systems until a demanded ransom is paid by the victim. However, paying the ransom does not necessarily guarantee file recovery or system restoration, which can again be a huge setback.

**Malware** is a software that is designed to attain unauthorized access to systems or cause damage. These types of malicious software include viruses, worms, ransomware, and spyware. Clicking on malicious links or attachments installs the software that activates the malware. Once activated, it can:

- Stealthily acquire data by transmitting it from the hard drive (spyware)
- Block users from accessing key network components (ransomware)
- Make systems inoperable by disrupting individual components
- Install malicious software that can cause harmful effects

**Advanced Persistent Threats (APTs)** happens when someone unauthorized gains access to a system or network and stays there undetected for a long time. These threats generally do not harm the network or machines and are more focused on data theft. APTs are known to go unnoticed and undetected by traditional security systems, but they are notorious to be the reason for a number of large, costly data breaches.

**SQL Injection** involves inserting a malicious code into a server that uses SQL and allows the attacker to intervene with queries. This web security vulnerability can be as simple as entering the code into an unprotected website search box. The infection causes the server to release sensitive information.

**Man in the Middle (MITM)** attacks, self-evidently, occur when hackers alter a two-party transaction and steal data. Any unsecured public Wi-Fi network is prone to such kinds of attacks. The attackers who resort to such tactics insert themselves between the visitor and the network and, with the help of malware, carry out malicious activities.

**Denial of Service (DoS)** is intended to shut down a machine or network so that it cannot respond to any requests and to make it inaccessible for users. This type of attack is carried out by flooding the target with traffic and triggering a crash.

## SECURING BUSINESS FROM CYBER SECURITY THREATS IN CURRENT SCENARIO

In this new environment, cybersecurity professionals must aggressively confront the risks. For starters, they need to quickly make their company's remote workforce aware of scams, and then train them how not to fall victim to them. E-learning or web-based training platforms are valuable here.

IT security professionals need to keep an eye on the medium and long term, recognizing that remote work may become the norm for many employees long after the pandemic has ended.

Integral to the success of security efforts will be deploying technologies and solutions that are effective and quick to adopt, such as those that are hosted in the cloud. Cloud-based security and platform services markedly reduce deployment time. They also let companies increase the breadth and depth of security protection rapidly (i.e., referred to as dynamic scalability), depending on the threats of the moment. And cloud-based security also enables IT security professionals to manage all this remotely.

For example, cloud-based secure virtual desktop services give IT professional's remote access to employees' systems, including files and the network. The cloud is also key to security systems. Secure-edge, cloud-based data leakage prevention and threat-protection controls can help safeguard an organization's critical assets.

Companies that use secure remote access technology can give remote employees private access (without a VPN) to enterprise applications and systems. Firms can also use privileged access management (PAM) services to allow special remote access to their IT and application administrators. Multi-factor authentication services including biometric and text based methods, enable stringent risk-based access to internal applications that are opened for remote access.

**Some new security measures need to be adopted by business organization:**

- Some organizations will need to move to new operating models. cybersecurity and IT rights will require careful examination and handling. Remote worker monitoring and support will become vital.
- Companies will need to reset their security systems to ensure there are no outliers. Both physical and digital systems will need to be restarted, to check for any digital holes in the fence. IT systems will need to be analyzed for cracks, foul paths or fraudulent identities. The reason is that cybercriminals may have found ways to gain entry into otherwise hardened facilities.
- New cyber risks that appeared during the pandemic must be understood. For instance, security experts will need to scrutinize the digital capabilities of critical business functions, making sure they can withstand cyberattacks during a lockdown. They will examine critical supply chains, including digital supply chains, to ensure continuity during a health crisis.
- Corporate IT security architectures should be assessed. This includes access mechanisms, support needs for remote access on a mass scale, and feature risk/context-based security authentication mechanisms.
- Updates to remote access and bring-your-own-device (BYOD) policies must be made. They should include cybersecurity hygiene controls.
- Advanced technology must be deployed. Threat detection and response capabilities must include advanced capabilities supported by next-generation technologies like big data, artificial intelligence and machine learning. These are needed to detect and respond to adverse behavior at machine speed, without human interventions.
- Secure Video Conferencing ,Video conference capability has become a staple to help employees continue to meet face-to-face while working apart. Keeping meetings private and password-protected, with a unique password for each meeting, is essential for ensuring security.

**CONCLUSION**

Cybercrime has become great threats to business organizations. Protection against cybercrime is a vital part for social, cultural and security aspect. Companies will also be required to optimize budgets and accelerate their digital transformations as they adjust to the new normal post-crisis. By leveraging the emerging technologies and service models transformed to do more with less, security leaders would have to embrace these initiatives. It is important to conduct these in the most cost-effective way.

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**IMPACT OF BEHAVIOURAL FINANCE ON INVESTMENT DECISION OF HOUSEWIFE IN KALYAN**

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**ABSTRACT**

*Behavioural finance in context to the psychology of investors and its impact in taking financial decision. It is natural phenomenon that human are social animal and they have emotion which influence their decisions. The decision which are influenced from their behaviour leads to inefficient and difference in decision. It requires to understand that branch of study which influences the psychological factors affect decision making under uncertain conditions. Through this research we came to know about the attitude of housewife while they invest in various investment avenues. Through this we also came to know that their investment decisions are influenced by both the traditional methods of the investment as well as from the psychological factors. This research involves both primary and secondary method to know effects of behavioural finance on housewife and to study the influence and relevance of behavioural financing in investment decision of housewife.*

*Keywords: Behavioural Finance, Psychological Factors, Financial Decision, Investment Decision.*

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**INTRODUCTION**

We live in 21st century as a country we can proudly say that woman are getting more empowered but same time we can't deny the fact that a majority of women are still restricted to house chores. They work at home as housewife. Through this research, the researcher only considering women who are housewife but not the entrepreneur, freelancers or engaged in some or the other jobs. Does the investment decision of housewife influences the share markets and if so does their investment decision get influenced from the behavioural finance. To get the answer of the researcher has done a survey of 50 housewives who mainly belongs to Kalyan Taluka. The housewives belonged to middle class family and the minimum qualification is 10th. When it comes to investment mainly we think that there will be always an alternative way in which investors invest but behavioural finance has given some surprised facts that not always substitute methods of investment are used. Here we are mainly focusing on housewives. Housewives as the homemaker are mainly known for spending money. So it is very crucial to know, that while doing investment what effects them most. And also the role of their psychology on the savings and investments decision.

**LITERATURE REVIEW**

The research reflects that women entrepreneurs consider investment as a long-term instrument are risk avoider and little bit conservative. They wish to take risks in business but not for making investment decisions. The reasons behind this low-risk investment behaviour consist of lack of time and patience to understand investments as well as lack of knowledge about various products. The research asserts that if they spend time to understand properly different investment avenues available in financial market, they are likely to take risks for their investments as well. The interviews also reflect that women entrepreneurs often blindly follow the investment behaviour of their parents.

Jyoti M. Kappal (Symbiosis School of Banking and Finance (SSBF), Symbiosis International (Deemed University) (SIU), Pune, India) Shailesh Rastogi (Symbiosis Institute of Business Management, Symbiosis International (Deemed University) (SIU), Pune, India). ISSN: 1755-4179, Publication date: 10 June 2020 Kuntal Agrawal (1993) observed that the decision making power of women in India in economic field lies in the hands of their husbands irrespective of the wives' income, education and profession. Pandey Ranjana (2000) found that a majority of the woman were not engaged in savings and credit activities. Lack of ownership of resources was a reason for non-availability of loan. Deepa Mathur (2001) found that 54% of women take professional jobs for economic reasons, 30% for career, 7.5% work for their financial independence and 2.5% for other reasons. Kulwant Sing (2004) found that women working at the upper levels of job hierarchy carried out investment activities on their own. The ratio of the employed women who were reached during making investments was higher in public sector than in private sector. Anita (2004) found that the working women are more aware of the types of investments. While making an investment, working women are motivated by capital appreciation, safety, liquidity, speculation, tax benefits, and stability of income, transferability and prestige. Radha (2009) found that gold is one of the most popular investment options among women. The investments decision by the Indian women are mainly reliant on on her financial goals, employment status, age, time horizon and most importantly risk taking abilities. Amol Agrawal (2010) observed that women do not possess the requisite skills to make successful investment and financial decisions. Neelambika Pattanshetti (2012)

conducted a detailed study on impact of savings and investment policies on working women. The study reiterated that the involvement of women in investment and savings activities improves their social and economic status as well as increases their contribution to economic development. It, therefore, recommends that the women should be given education through short training courses in order to build up their confidence in investment activities.

### OBJECTIVES OF THE STUDY

- To know the impact of the behavioural finance on the behaviour of housewives of Kalyan
- To find out the factors influencing the investment avenues of the house wives.
- To know the influence of investment of house wives in the investment market.

### SAMPLING SIZE

For the purpose of study Researcher has collected data from 50 housewives respondents, who belongs to middle class oncome and having minimum education i.e 10th pass out. This sample is the true representative of the universe.

### SAMPLE UNIT

In this research the researcher has focused only for the house wives.

### SAMPLING TECHNIQUE

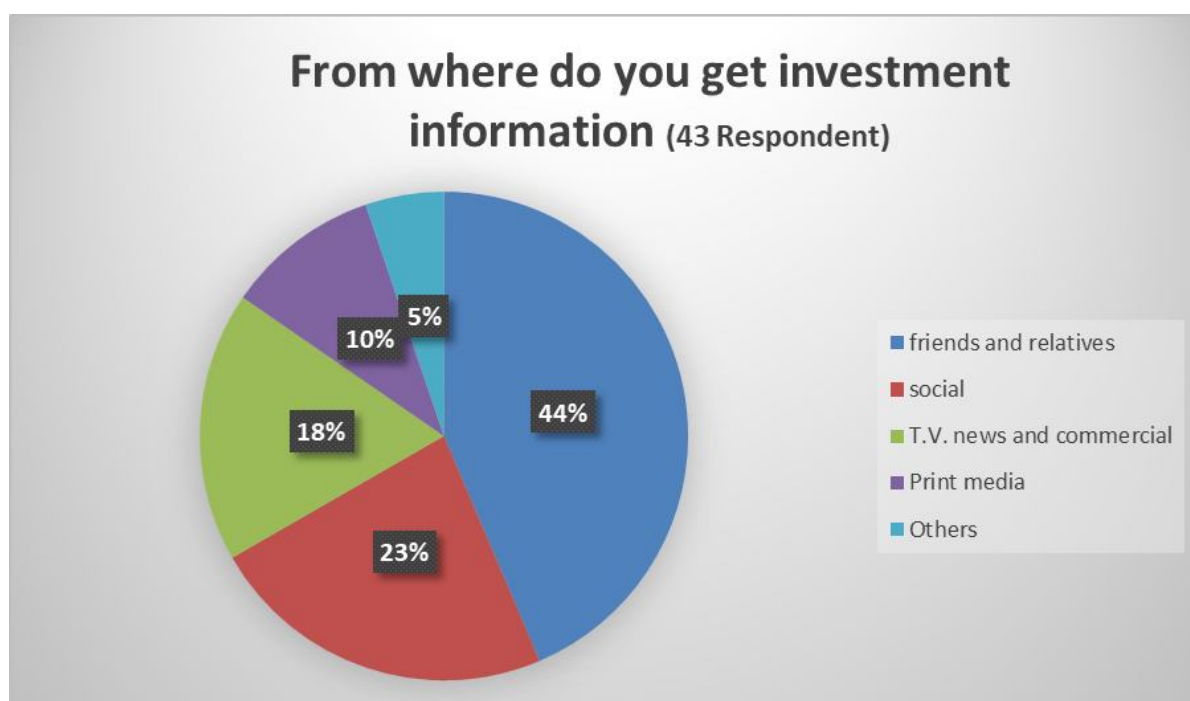
For the purpose of study total 50 housewives have been interrogated from the universe. Researcher followed random sampling technique for the selection of samples. Since the researcher has taken only one town called Kalyan, district of Maharashtra, sample size is restricted to only 50 respondent.

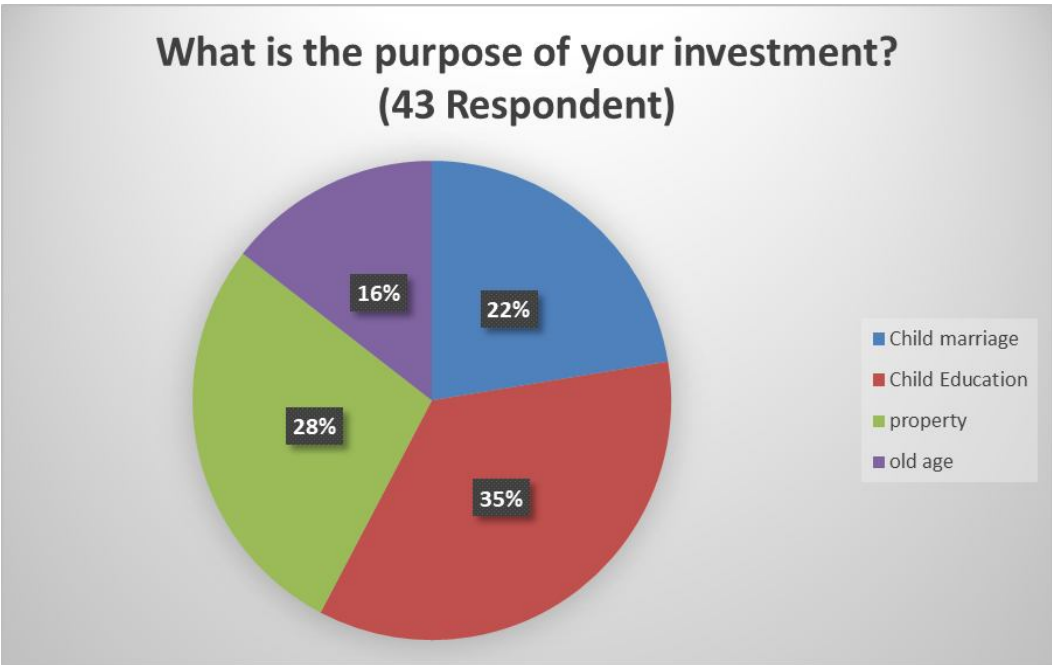
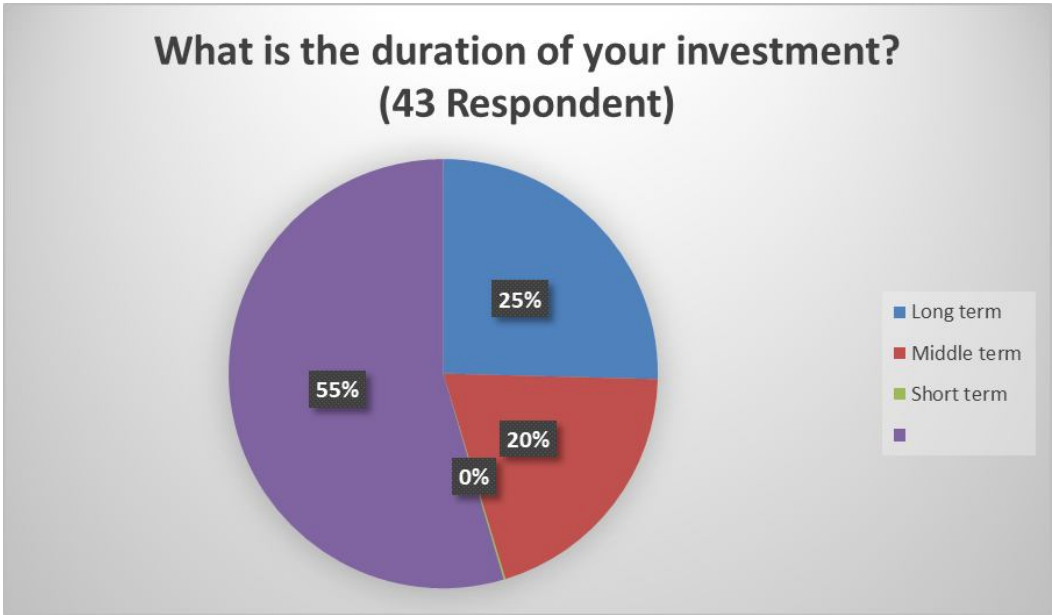
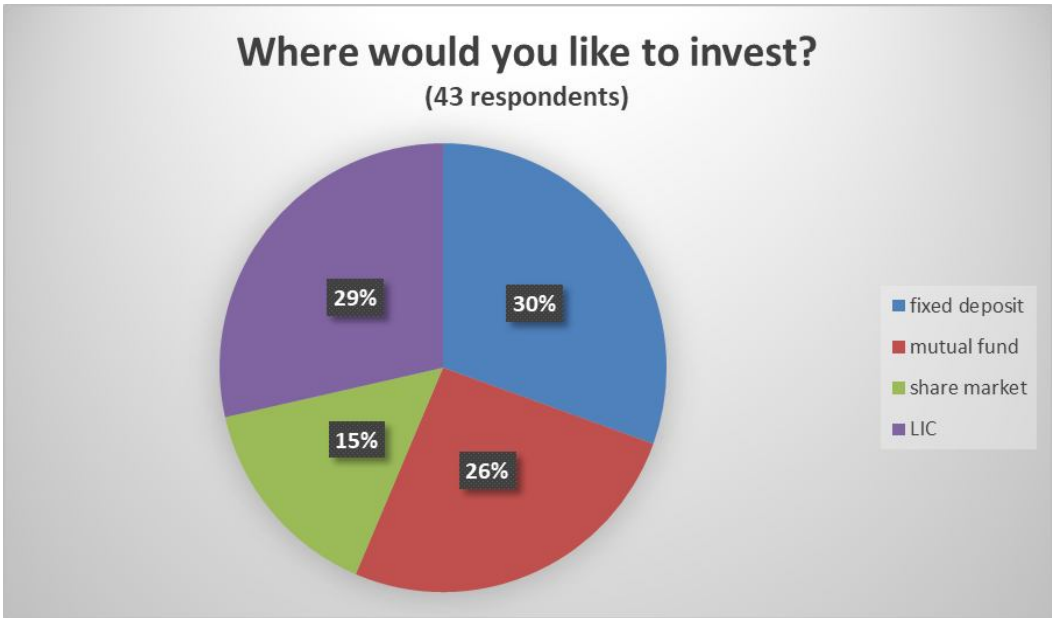
### METHOD OF DATA COLLECTION

The primary data are also known as fresh data. Which is collected by the researcher directly for his particular research, thus happen to be original in nature. In more simple words we can say it is something which is used first time by the researcher. There are many methods of collecting primary data for the research study. Researcher has taken the efforts to make questionnaire. The questionnaire consists of 16 questions. The questions are based on the knowledge about technical investment and the role of psychology in taking investment decision of house wives. The researcher also used secondary data for more clarification. The secondary data were collected from the journals, articles and the authentic papers which has been published. So researcher has used both the primary data and secondary data for his study.

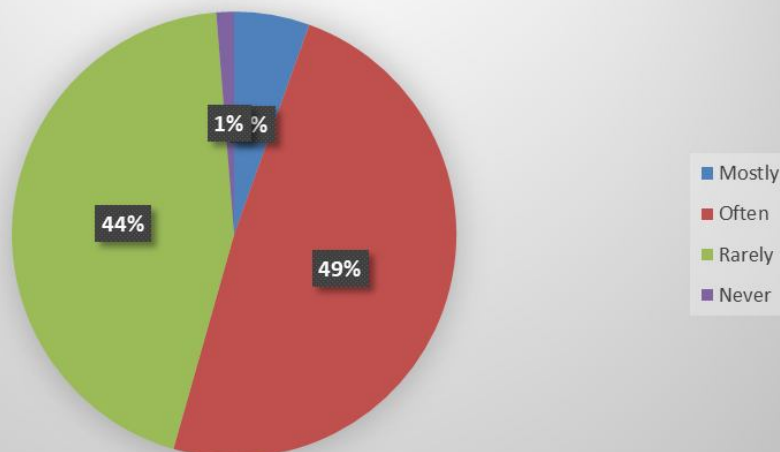
### DATA ANALYSIS

The researcher used chi-square test in this research work after making normal entering, coding and grouping etc. of the data.

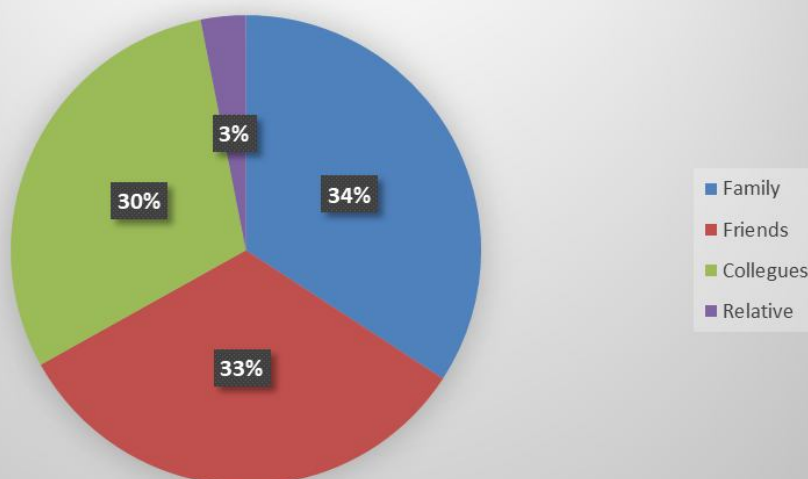




**Do you ever consult your family/ friends/  
relative/experts for your financial decisions  
( 42 respondents)**



**Whom did you suggested this particular  
investment  
(43 Respondent)**



## RESULT AND DISCUSSION

From the above charts we can see that the housewives behaviour have been getting effected by the friends and relatives. Also the most of them started investment after getting information from their family members. Their attitude and emotions plays an important role in deciding the investment. During any crisis period or fluctuations in stock market instead of following the rational decision they chose irrational decisions by getting influenced from their relatives and friends and withdraws the fund instead of holding the funds and let the market settle. While having talks with their friends they hardly discuss about the stock market, this shows they have low interest in knowing the capital market situations. The researcher also studied one very significant behaviour that most of them would prefer to invest in LIC instead of choosing mutual fund, fixed deposit or others. Sometimes saving the tax could be the reason but they preferred LIC because of their relatives or friends have suggested. So these all things reflects that the behavioural finance impact the investment decision of house wives and many times they prefer to take irrational decision instead of rational decision.

## CONCLUSION

This research highlights that house wives are getting influenced from the behavioural finance. Therefore, friends and relatives are their preference for opinions or irrational method instead of going with rational

methods of investments. Though the minimum qualification of these house wives are tenth but still they avoid the rational decision of investment and got more influenced from their family members, friends and relatives for investment related information and for taking investment decisions. Women are less risk takers when it comes to financial investments and therefore opt for risk free investments like LIC, bank deposits and gold rather than investing in shares and bonds. The government, Researcher and financial institutions must strive to promote financial literacy through its public policies, research papers, and journals so that women can have better financial investment ideas. They grow interest in the stock market and become rational decision makers.

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**NOVICES IN THE ‘NEW NORMAL’ EDUCATION SYSTEM OF ‘LEARN FROM HOME’: PROS & CONS**

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**Prof. Priya Tiwari**Abhinav Degree College, Bhayander East

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**ABSTRACT**

*“Education means that process by which character is formed, strength of mind is increased and intellect is sharpened, as a result of which one can stand on one’s own feet.*

*Swami Vivekananda*

*As everyone is aware that education is important for the good life of every citizen of nation because education transforms the human from inside and outside by changing mind, personality as well as improving confidence level. It facilitates quality learning in the form of values, skills, beliefs and moral habits. But the present situation of COVID 19 has changed the overall system of education.*

*The impact of pandemic COVID 19 is observed in every sector around the world. The education sector of India as well as world is badly affected by this. All institutions and students alike are under pressure and facing the struggling challenges. Around 32 crore learners stopped to move schools/colleges, all educational activities halted in India. The outbreak of COVID 19 has advised us that change is inevitable. It has worked as a catalyst for the educational institutions to grow and opt for platforms & techniques which have not been used before. The education sector has been fighting to survive in the crises with a different approach and digitizing the challenges to wash away the threat of the pandemic. This paper highlights both opportunities & challenges that are faced by the education industry as a whole due to ‘New Normal’ & also discussed some fruitful suggestions to carry out the seamless education during the pandemic situation.*

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**INTRODUCTION**

The pandemic COVID19 has spread over whole world and compelled the human society to maintain social distancing. It has significantly disrupted the education sector which is a critical determinant of a country’s economic future. The first case of COVID 19 in India, which was originated from China, was reported on 30<sup>th</sup> January 2020. India currently has the largest number of confirmed cases in Asia, and as of March 2021, has the third highest number of confirmed cases in the world after the USA & Brazil [ Wikipedia]. As of March 28, 2020 this pandemic is causing more than 1.6 Billion children and youths to be out of school in 161 countries. This is close to 80% of world’s enrolled students.

The World Bank’s ‘Learning Poverty’ indicator indicates that 53% of children cannot read & understand at the age of 10 before outbreak started. This pandemic has worsen these outcomes even more badly. After observing the CORONA virus situation the WHO advised to maintain social distancing as the first prevention step. So every country started the action of lockdown to separate the contaminated people. Indian government too saw that situation was uncontrollable, and then on the evening of 24<sup>th</sup> March, government imposed a 3 weeks national lockdown with just 4 hours’ notice. There was no prior announcement and there seemed to have been no planning. And this decision of the government did not remain untouched to the educational institutions as well. It has affected educational systems worldwide leading to the near total closure of schools, universities and colleges. All Government decided to temporarily close educational institutions in an attempt to reduce the spread of COVID-19. As of 12 January 2021, approximately 825 million learners are currently affected due to school closures in response to the pandemic.

School closures impact not only students, teachers, and families but have far reaching economic and societal consequences. School closures in response to the pandemic have shed light on various social & economic issues. The impact was more severe for disadvantaged children and their families, causing interrupted learning, compromised nutrition, childcare problems and consequent economic cost to families who could not work. . Even though the country has been adapting the new-age learning but there still lies an obstacle in achieving entire success as only 45 crore people of our total population of the country have access to the internet. The people residing in rural areas are still very much deprived of the technologies and therefore hampering the cause of online education. The COVID-19 pandemic taught the entire society on how necessity is the mother of invention by allowing educational institutions to adopt online learning & introduce a virtual learning culture. The pandemic has been steering the education sector forward with technological innovation and advancements. The pandemic has significantly disrupted the higher education sector also.

**OBJECTIVES:**

The present study is focused on the following objectives:

- 1) To highlight the impact of 'New Normal' on overall education system.
- 2) To enlist the opportunities & challenges of 'Learn from Home.'

**METHODOLOGY:**

Various reports of national & international agencies on COVID-19 pandemic are searched to collect data for current study. Also, information are collected from different authentic websites, journals and e-contents related to impact of COVID-19 on educational system of India.

**CHALLENGES OF 'NEW NORMAL':**

The most severe problems that are faced by Indian education system, teachers, students and parents are as pointed below:

- 1) Lack of Technical Facilities: Due to COVID-19 most of the educational institutions have adopted the online strategies of learning. Although with a lot of effort and challenges for teachers and parents, most of the children do not have a desk, books, internet connectivity, a laptop at home or supportive parents. This has a larger negative effect on poor children's learning.
- 2) Problem of Interaction with Children: Another problem arises because of online learning is maintaining the engagement of children, particularly small children is very critical & this creates major problem for teachers to give their inputs.
- 3) Increasing Dropout Rates: Dropout rates are very high in many parts of the India due to completely closure of the schools & colleges.
- 4) Absence of Social Skills: Going to school is not only about learning math & science, but also about social relationship and peer-to-peer interactions. It is about learning social skill which is not possible to develop through online learning.
- 5) Lacking Children's Cognitive Development: In many parts of the country school feeding programs provide children with their most nutritious meal of the day. They are essential for the cognitive development and well-being. It is not easy to implement such programs through online learning where children are not turning to the schools.
- 6) Absence of Teacher-Student Relationship: The teacher-student relationship that is so crucial for student success has affected very badly. Even the best technologies cannot completely eliminate this distance between teacher and student.
- 7) Problem of Illiterate Parents: Numerous parents have experienced difficulties in terms of their abilities and availability to support their children in their learning and in the use of technologies.
- 8) Socio-Economic Problems: The impact of COVID on education varied not only geographically, but also between socioeconomic groups. The extreme poor girls, refugees, migrants and students with disabilities many of whom were already behind in their education have suffered the greatest disruptions to learning during the crisis.
- 9) Lacking Active Participation of Students: The worst form of online learning is that students just have to sit passively and listen. This approach of learning is very solitary and didactic. And this is the form most students have received during school closures.
- 10) Challenges for Teachers: Teachers had little or no notice about their school closing and shifting to online teaching. This can be challenging for anybody because they are not used to it.
- 11) Problems for Vernacular Students: Adapting to online education is easier for English medium students and teachers due to the ready availability of tools & content. The situation is opposite for vernacular language students that dominate the Indian school education scene.
- 12) Problem of Online Content: The quality of content is bigger issue. There is no check on the quality of content provided by online platforms to the students.
- 13) Disruption of Essential Services of School: Prolonged closure of school also disrupts essential school based services such as immunization, school feeding, mental health and psychological support. Loss of peer interaction and disrupted routines affected the life of students.

- 14) Adversely affect the Psychological Support: School educators are considered as by many children as their second family because these are the parent figures that teach how to read, write, count and so much more. Schools also impart knowledge on nutrition, health and hygiene services, mental health and psychological support and dramatically reduce the risk of violence, early pregnancy and more. Prolonged closure of schools can only have an unfavorable effect on them.
- 15) Severely Affected the Educational Assessment System: Most of the external examinations have been postponed and almost all the internal assessment has cancelled which has created negative impact on students for their occupational future.

**Opportunities in 'New Normal':**

Change is inevitable which has been forced upon the society due to COVID-19. The opportunities created by the pandemic will lead towards a better tomorrow. Tomorrow will be a new morning which will entirely be in our own hands. New technologies will certainly challenge the traditional paradigms such as classroom lectures, modes of learning and modes of assessment. The new trends will allow the education sector to imagine new ways of teaching learning and some trends may be pointed as below:

- 1) Encourage Personalized Learning: Online learning may not be confined to classes or to any specific boundaries. Now the learning modules are modified to suit different learning styles and learner's aspirations and needs. Students may pursue their learning as per their choice.
- 2) Increasing Demand for Open and Distance Learning: COVID-19 has forced the human society to maintain social distancing. It has created more challenges to continue teaching learning by maintaining social distancing. To meet these challenges there is more demand for open and distance learning and the same trend may continue in future also.
- 3) Increasing Role of Blended Learning: Blended learning combines both face to face and online learning modes. 'New Normal' has accelerated adoption of digital technologies to deliver education and encouraged the educational institutions to move towards blended mode of learning. All teachers and students became more technology savvy.
- 4) Changes in Traditional Method of Learning: The traditional way where teacher used to teach and students used to learn has changed now. In place of the traditional brick and mortar classroom, schools have witness the rise of flipped classrooms, leveraging blended online and offline instructions. It offers a choice to get out of boring classes and offers real life learning opportunities.
- 5) Promotes Independent Learning: The 'New Normal' of online learning seems valuable to promote students independent learning. Greater learner autonomy help students organize their work better, take more initiative, think more critically and be more involved, responsible and accountable as well as make them more motivated.
- 6) Improves Teachers Digital Skill: Most of teachers were not acquainted with the modern technologies of teaching. This pandemic improves the teacher's digital skill. Most of the schools have given the training to the teachers to adopt modern method of teaching.
- 7) Increasing Parents Responsiveness towards Children: The 'New Normal' situation made the parents more involved and responsible for their children's education. Most of the parents have learnt the use of technology in teaching for their children.
- 8) Offers Flexibility in Teaching and Learning: Students have the freedom to juggle their careers and school because they are not tied down to a fixed schedule. In a traditional classroom setting, class times were set and students has no power over this. But now they can delegate their time towards different tasks.
- 9) Improves Technical Skills of Students: Learning online help the students to improve technical skills as they need for the job. New skills include the ability to use new software suits, perform in depth research online and communicate effectively online in various formats such as discussion boards and teleconferencing.

**SUGGESTIONS:**

The solution of the problem lies neither in a top-down approach from policymakers, reactive changes to teacher preparation and in-service training nor temporary make shift arrangements by under-resourced principals and teachers. All parties need to be involved in developing strategies that can be implemented in the near term as well as long term. Considerable co-operation and support from the state and central government will be required to help this vision.

**CONCLUSION:**

This study has outlined various impacts of COVID-19 on Indian Education. The recent pandemic created an opportunity for change in pedagogical approaches and introduction of virtual education in all levels of education. As we do not know how long the pandemic situation will continue, a gradual move towards the virtual education is the demand of the current crisis. E-learning shall continue to grow at a rapid pace, and this is irrespective of age, location and subject. The understanding and the adaptation towards electronic devices and the growing necessity of the internet across the world have made online learning all the more accessible and appealing to a generation that has already been receptive to technology, parents and professional both. This paper has not covered any statistical analysis on impact of COVID-19 on education however in-depth study with statistical research may also be undertaken.

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**A STUDY OF CONSUMER RESPONSIVENESS TOWARDS READY TO EAT FOOD INDUSTRY  
FOR MUMBAI AND THANE DISTRICTS**

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**ABSTRACT**

*The rapid pace of organization, the changing work culture and increasing trend of nuclear families have resulted into changing food habits of people in 21 st century. Traditionally in India home cooked and fresh food consumption has been part of the culture but, as modern solution to modern issues, ready to eat food industry has evolved. The trend of using ready to eat products confined to elite class has been dripping to other sections. The paper aims at assessing the perception of people in Mumbai and Thane District about consumption, reliability and accessibility of ready to eat food products. It also attempts to explore potentials of the market for such products. The structured questionnaire was circulated on random sampling basis and researchers have analyzed the responses of 158 samples on various parameters. The study shows that there is immense potential for this industry to grow as factors having positive co-relation are on rise.*

*Keywords – Ready to Eat Food Industry, Consumer Perception, Potential, Buying Trends.*

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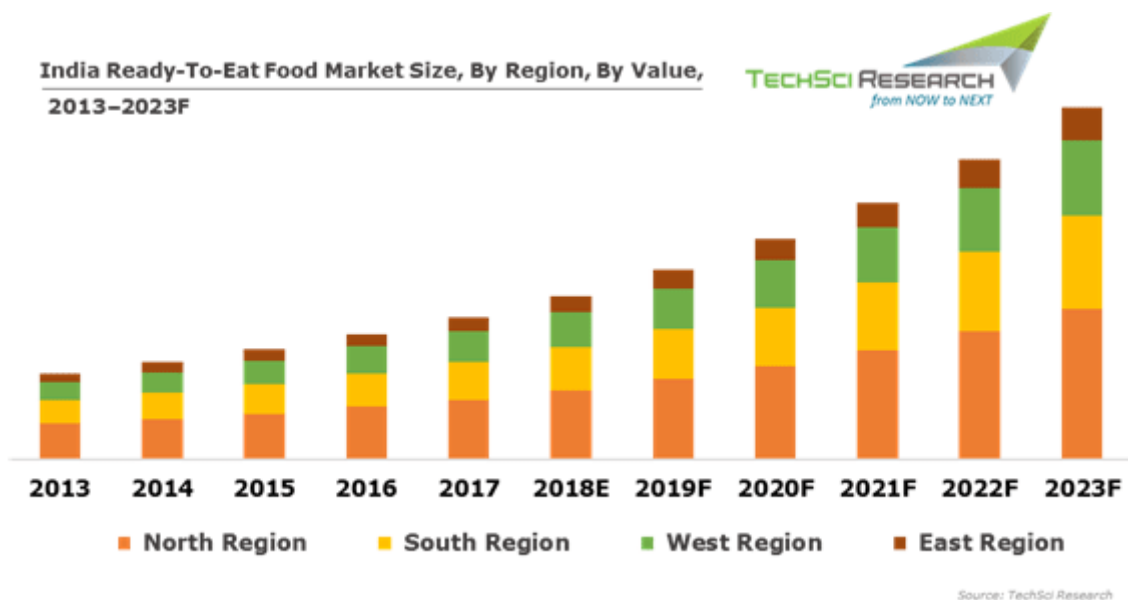
**INTRODUCTION**

Ready-to-eat, instant food mix or heat and serve food – regardless of what you call it, there is no denying that ready-to-eat meals are the most convenient food products present in the market today.

Ready-to-eat (RTE) foods are a group of food products that are pre-cleaned, precooked, mostly packaged and ready for consumption without prior preparation or cooking. According to the 2009 US Food code (FDA, 2009), RTE foods should be in an edible form without an additional preparation step to achieve food safety. They can be refrigerated, shelf-stable, require minimal heating or are served hot. Ready to eat foods have specific guidelines to ensure that there is no contamination or chance of bacteria forming after the foods have already been prepared. The study “Flavors of Incredible India-Opportunities in the Food Industry” carried on by FICCI –Ernst & Young notes that the Indian Food industry is a significant part of the Indian Economy with food constituting about 30% of the consumer wallet.

India ready-to-eat food market stood at \$ 261 million in 2017 and is projected to grow at a CAGR of over 16% during 2018-2023 to reach \$ 647 million by 2023. Anticipated growth in the market can be attributed to rising urbanization, increasing disposable income of middle-class population and changing taste preferences of Indian consumers. Moreover, growing demand for quick food and presence of freshness and high nutritional value in these foods is further aiding growth of India ready-to-eat food market. Demand for ready-to-eat food products is recording high growth in metros where a lot of working people don't get enough time to cook proper meals. Additionally, longer shelf life and easy availability of ready-to-eat food products is further pushing their demand across the country. The most popular ready-to-eat items include preparations of paneer, chana masala, rajma masala, pavbhaji, etc. Rise in demand for ready-to-eat food products has created the interest among many companies to enter this space which is likely to contribute to the growth of the market in the coming years. Furthermore, innovation in products offerings, sustainable packaging, preference of single serving frozen products, aggressive marketing & promotional strategies would steer growth in the market during forecast period.

The following graph indicates the growth

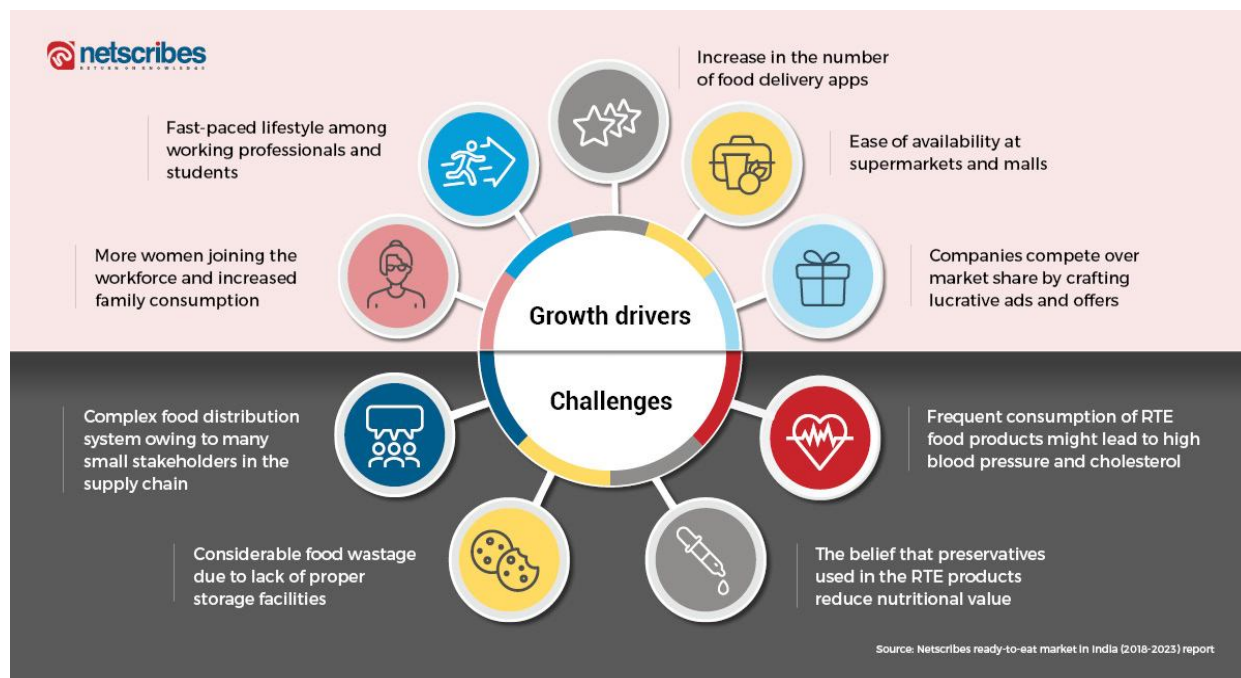


Source: TechSci Research

Some of the major players operating in the India ready-to-eat food market are McCain Foods India Pvt. Ltd., MTR Foods Pvt Limited, fortune Food Products Pvt Ltd., Haldiram Snacks Pvt. Ltd., kissan Limited, balaji Foods Pvt. Ltd., disano Foods Limited etc

Consumer behavior is a study of how a customer selects, buys, uses, and disposes ideas, goods, and services to satisfy his needs and wants. RTE food products are those offered to the customer after being washed, cooked, frozen and processed, and yet consumed after heating. The reason that drives us for this research is that there are around 80% of the people consume ready-to-eat food.

### Growth drivers and challenges faced by RTE food products in India



Source: [netscribes.com/ready-to-eat-market-in-india](https://netscribes.com/ready-to-eat-market-in-india)

### Growth drivers

#### 1. Surge in per capita income and average consumption

Aside from the rise in per capita income, many women have joined the workforce. This allows an increase in the number of earning members in a family, raising per capita spending capacity.

## 2. Rapid urbanization

Cities and urban settlements have more employment opportunities than villages, leading to a growing exodus of people leaving rural settlements for urban ones. The fast-paced urban lifestyle for working professionals and students living away from home has catalyzed the demand for ready-to-eat food.

## 3. The advent of numerous food delivery mobile apps

An on-the-go lifestyle has compelled many Indians to rely on ready-to-eat products that can be ordered via mobile apps like Swiggy, Foodpanda, and Zomato. This has led to a visible growth in the consumption of a wide range of ready-to-eat food products through these channels. It's no surprise why the online food delivery sector is expected to grow to a value worth INR 162 billion (USD 2.2 billion) by 2021.

## 4. Growth in retail marketing of frozen foods

There has been a significant proliferation of retail outlets, especially in the country's tier I and II cities. Shopping malls and supermarkets have become significant points of sale for RTE and frozen food items, accounting for nearly 75% of frozen food sales. They are doing this through promotional campaigns that inform customers about exclusive stores where their products are available.

## 5. Attractive advertising and promotional campaigns help popularize RTE products

Players within this field offer similar products, with minor distinctions in terms of taste, price, and quality, leading the aggressive competition within the market. Hence, companies are always looking for ways to make their promotional campaigns as attractive as possible, especially in tier I, tier II cities and rural markets, battling over consumer mindshare and recall value.

## CHALLENGES

### 1. Lack of effective product distribution system

The RTE market in India is largely composed of unbranded products. As a result, the supply chain contains many small stakeholders like raw material producers, research and quality testing units, suppliers of RTE manufacturers among others. Many such siloed units are making the food distribution system a complex one. Also, lack of proper storage facilities end up in considerable food wastage

### 2. Negative perception affecting consumer behavior adversely

It is noticed that most of the aged city dwellers are under the impression that the food-preservatives used in the RTE products reduce their nutritional value. As a result, they prohibit the younger generation from consuming the packaged ready-to-consume food products, hampering overall RTE product sales in India.

### 3. Increased health concern

Many health experts state that frequent consumption of RTE food products might lead to high blood pressure and cholesterol. Also, such food items develop hypertension, diabetes and heart diseases. This deters health conscious consumers from purchasing such food products. Indians often consider that packaged ready-to-consume food items contain a high concentration of salt, sugar, and fat. These beliefs deter them from consuming such products.

## LITERATURE REVIEW

Sundaram, vijaybhaskar (2012) in their study titled 'A MARKET STUDY ON KEY DETERMINANTS OF READY-TOEAT/COOK PRODUCTS WITH RESPECT TO TIER-I CITIES IN SOUTHERN INDIA' have used survey based model targeting age group 25 to 40 for their research. The results of their study have shown the ready-to-eat market segment is defined by high growth in middle class section peoples and their life style changes due to job factors. This study shows that there is a greater demand for ready-to-eat food segments and the major attraction for these products are convenience, availability and less time consumption to cook. Customers in this study are surveyed in shopping malls but in order to understand general consumer perception it is also important to study consumer behavior from all sections of society

Chaurasiya, Pandey et al (2020) in the study titled 'Consumer Behavior towards Ready-to-Eat (RTE) Market: A Study of MTR Foods' found out that MTR Foods is not a well-known brand in Malaysia, yet considered as popular brand in India. Most of the respondents in this study purchase or prefer the MTR Foods Ready-to Eat meals on the criteria of taste and nutrition, convenience and pricing. The respondents were most likely satisfied with MTR Foods. Few of the respondents were highly satisfied with the products. Our study focuses on RTE in general rather than a particular brand.

Nirmalraj R.J.T. (2012): This study reveal the factors that are affected consumer buying behavior of "Ready to Eat Foods in India" A descriptive study was conducted to attain an insight in to customer's perception about the

ready to eat foods. Findings of this study suggest that Indian companies must focus on creating awareness towards ready to eat food products so that potential growth chances can be maximized for ready to eat companies.

**SIGNIFICANCE OF THE STUDY**

This study will be an immense help to understand the Indian market for RTE food products. Also Indian consumers opinion on RTE foods and their concerns regarding the same.

**OBJECTIVES:**

After detailed review of literature including books, articles, research papers and journals, researchers have identified following objectives for the study.

1. To study current positioning of ready to eat food industry
2. To review the trends in consumer responsiveness towards ready to eat food industry
3. To analyze the perception of consumers towards ready to eat industry products
4. To predict the potentials of ready to eat industry for future

**METHODOLOGY**

An empirical investigation has been done to study the determinants of market potential of Ready-to-eat consumption in thane and Mumbai region using reliable data sources. The literature reviews are done based on the secondary information's available in the well known articles from good publishers and internet sources. Secondary data are collected from journals, magazine, and websites of marketing management.

**Sample Size**

Sample size of 158 respondents through filling questionnaire as primary data is taken for the research.

**Sampling Procedure**

The researchers adopted convenient sampling method for collection of primary data through the questionnaire designed. Online surveys are conducted to arrive at the result. Our questionnaire was created using Google Forms.

**Data Analysis**

Profile of respondents

**A. on the basis of age**

15 to 25 – 40.5%

26 to 35 – 21.5%

36 to 45 – 32.3%

46 and above – 5.7%

**B. on the basis of gender**

Male – 24.7 %

Female - 75.3%

**C. occupation of respondents**

Student – 31.6 %

Professional – 30.4%

Business – 1.9%

Homemaker – 4.4 %

Service – 30.4%

Others- 1.3%

**D. relationship status of respondents**

Married- 43.7 %

Unmarried- 54.4%

Others- 1.9%

### E. respondents who consume RTE food products

Consume- 74.1%

Do not consume- 25.9%

### F. on the basis of monthly income (in rupees)

0 to 20,000- 35%

21,000 to 50,000- 24.8%

50,001 to 2,00,000- 32.5%

2,00,001 and above- 7.7%

### FINDINGS

- Out of total respondents, only 74.1% consume RTE food products.
- Of the 74.1% respondents who consume , we noticed that only 1.7% consume RTE food on daily basis, mostly people consume it on weekly and monthly basis.
- When food is not cooked at home, 67.5% people order food online whereas only 12.8% actually consume RTE foods .
- People prefer RTE foods for breakfast(37.6%) and dinner (57.3%)
- 82.9% of the respondents spend less than 10 percent of their income on RTE foods
- Major reasons for buying RTE foods are time saving,availability,easy to use,clean and hygienic
- The concerns with RTE foods are
  - a. freshly cooked food is healthier
  - b. contains large amount of preservatives
  - c. less nutritional value
  - d. leads to weight gain because of high salt and sugar content
- 41.9% believe that their purchase of RTE foods has been reduced during the pandemic.
- Since 67.5% people order food online , this could be the reason why during pandemic there was not much increase in sales of RTE foods, because people prefer freshly cooked food.

### CONCLUSIONS

Since 67.5% people order food online, this could be the reason why during pandemic there was not much increase in sales of RTE foods, because people prefer freshly cooked food. Out of total respondents, only 74.1% consume RTE products, which mean the producers still need to attract the rest towards their products. The concerns raised in this study can be addressed by the producers in order to change consumers perception towards RTE foods.

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**A STUDY ON THE SCOPE AND CHALLENGES OF CLOUD COMPUTING IN MANAGEMENT EDUCATION**

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**ABSTRACT**

*By using internet cloud computing model provide us IT resources, such as application, infrastructure, and platform in the form of service and processing of all types of data resources and mainly focuses on how we leverage existing services to design computing systems, develop applications and build software.*

*It also explores certain benefits of cloud computing over traditional IT service environment-including scalability, flexibility, reduced capital and higher resource utilization are considered as adoption reasons for cloud computing environment. In this paper, I provide an overall perception on cloud computing scope and challenges in management education.*

*Keywords: Cloud Computing, Cloud Computing & Learning as a Service (LaaS), Software as a Service (SaaS), Virtual Computing Lab (VCL), Distributed learning environments, Interactive learning environments Computing, Services, Cloud providers.*

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**INTRODUCTION**

With cloud computing one can easily maintain, manage the database resources. It offers online data storage, infrastructure and application. Cloud Computing is a combination of software and hardware resources. Cloud computing is a completely new technology. Software as a Service (SaaS), Platform as a Service (PaaS) and Infrastructure as a Service (IaaS) are the services provided by cloud computing.

Facebook, YouTube, Dropbox and Gmail are the basic example of cloud computing. Cloud computing based on internet and too started with cloud computing zero capital expenditure is necessary. It supports rapid provision with minimal management effort and can be issued or service provider negotiation. It also associated with utility computing, IT outsourcing, platforms and software as a service.

The main benefits of cloud computing are: It may reduce the cost of managing and maintaining your IT systems. Even access to automatic updates. Flexibility. Users can scale services to fit their needs, customize applications and access cloud services from anywhere with an internet connection.

**Anatomy of Cloud Computing****Monitoring and Optimization:**

This layer provide relevant data as well as it handles the all kinds of services such as storage, networking and application components which are based on statistics. It also performs routine functions of infrastructure components which further optimize the configuration for utilization and performance.

**Configuration Management Database (CMDB):**

In this all the meta data and configuration of different modules, resources are kept and updated in the real-time basis. This can be accessed by using standards protocols like SOAP by third-party software and integration components.

**Cloud Life cycle Management Layer (CLM):**

This layer manages the complete lifecycle of resources used by cloud. It includes portal to the customers to virtually manage their resources.

**Service Catalog:**

It defines what kind of services the cloud is capable of providing and at what cost to the end user. Before the architecture service catalog is drafted.

## Cloud Computing Architecture

## Do you Use the Cloud?



With the help of Cloud Computing one can manipulate, configure, and access the applications through online. It offers online data storage, infrastructure and application. Cloud Computing has a combination of software and hardware-based computing resources. Without upfront investment cloud computing offers an innovative business model for organizations.

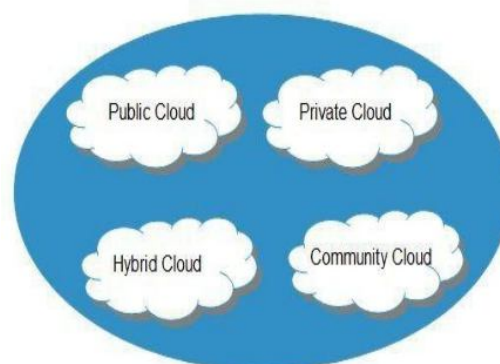
Following are the working models for cloud computing:

1. Deployment Models

2. Service Models

### 1. Deployment Models

To access the cloud Deployment models is used, which means, How the cloud is located? Basically, Cloud can have four types of access: Public, Private, Hybrid and Community.



#### ➤ PUBLIC CLOUD

The Public Cloud allows to access as well as shared via internet. It is less secure way. E.G. E-Mail.

#### ➤ PRIVATE CLOUD

The Private Cloud can be access within organization. It is secure compare to public because of its private nature.

### ➤ **COMMUNITY CLOUD**

The Community Cloud can be accessible by group of organizations.

### ➤ **HYBRID CLOUD**

The Hybrid Cloud is combination of public and private cloud. All the critical activities are performed by using private cloud whereas the non-critical activities are performed by using public cloud.

## **2. Service Models**

Service Models is a unique set of business requirements. Cloud computing is used to access computing where massively scalable IT-related activities perform by using internet to perform numerous external clients with the help of service models.

Cloud Computing is broadly classified into three services:

- a) Infrastructure as a Service (IaaS)
- b) Platform as a Service (PaaS)
- c) Software as a Service (SaaS)

### **Infrastructure as a Service (IaaS)**

- IaaS is used to deliver a cloud computing infrastructure such as server, storage, network and operating system.
- In IaaS, CPU, memory storage configuration can be chosen by user according to need.
- Physical machines, virtual machines, virtual storage are fundamental resources provided by IaaS
- It can be coupled with Managed Services for OS and application support. e.g., monitoring, auto-scaling etc.
- Examples: Storage services provided by AmazonS3, Amazon EBS. Computation services: AmazonEC2, Layered tech and so on.

## **IaaS Examples**



### **Platform as a Service (PaaS)**

- Developer can use PaaS for programming platform. This platform is used by developer to create, test, run and manage the various applications.
- In PaaS, to build up application one can only requires a PC and an Internet connection.
- PaaS provides the runtime environment for applications, development & deployment tools.
- Google App Engine (GAE), Microsoft Azure, IBM Smart Cloud, Amazon EC2, salesforce.com and jelastic.com are the examples of PaaS.

## PaaS Examples



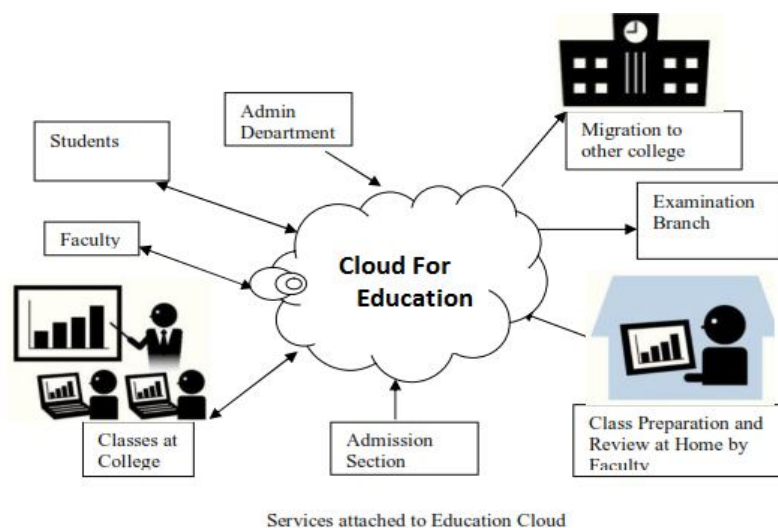
## Software as a Service (SaaS)

- 'On-Demand Software' is another name for SaaS.
- In SaaS applications are hosted by a cloud service provider.
- CRM, Office Suite, Email, games, etc. are the software applications used by SaaS.
- There are various kinds of companies like Google, Microsoft provide their applications as a service to the end users.
- SaaS software is hosted remotely, hence it required less cost for maintenance.
- SaaS required less cost than licensed applications even not required any special software or hardware versions.

## SaaS Examples



## Scope of Cloud Computing in Management Education



- In management education Cloud computing play vital role, it helps students, teachers and administrators.
- In the long run, more schools and colleges will start of cloud computing.
- With the help of cloud computing teachers can upload, share the information which can be easily access by students via internet. Even administrators can easily collaborate with each other and save time as well as on data storage.
- It is right technologies empower with real world and career ready skills also.
- Cloud Computing is huge demand in the market and the need for trained and certified.
- Cloud Practitioners are also growing rapidly.
- This technology plays a massive role in this disruptive change.

### **Cloud computing: How does it bring innovation in education?**

#### **❖ Strong virtual classroom environments:**

Virtual classroom can be arranged for students by cloud-based software. It helps us to reduce infrastructural cost. Even it helps to collaborate with skilled trainers who can remotely work on it. It helps teachers to create and deliver online information to students anywhere, anytime. It helps students to appear mock tests, virtual exams according to their convince. participants are fully immersed and communicate seamlessly with the teacher. virtual classroom is: Videoconferencing. Online whiteboard for real-time collaboration. It also Expanded world view.

#### **❖ Easy of accessibility**

By using the internet one can easily access the server data anywhere, anytime. Best example of cloud computing is Gmail. Via email one can send the information, attached the file just by signing in on any device. Even cloud computing provides us to access content, applications. It reduces barriers of place and time as well as save money also. Students can easily learn even while on the go also.

#### **❖ Scalability**

scalability provide ones to grow quicker and easier and stay agile all the way It can be grow or shrink as needed. It helps to manage the usage peaks as well as traffic spikes while assignment submissions or training registrations. To stop huge amount traffic cloud computing security is best solution used by companies. According to user's needs *scalable* system is able to increase or reduce its performance, resources and functionalities. To prevent bottlenecks later on, testing for scalability is done.

#### **❖ Agility and innovation**

Agility and innovation are another way learning provider from cloud computing. Consequently, by using it one can innovate to create better learning experiences for the students. By using new tools and features one can be developed, tested, and deployed in the applications. By using it Infrastructure can be de-provisioned or changed just as quickly in minutes instead of months. Company found the benefits of agility included faster revenue growth as well as lasting cost reduction. It is more effective management of risks and reputational threats.

#### **❖ Greater reach for the students**

To expand students' horizons cloud computing can be used, which provides various kinds of opportunity for them. It explores new concepts in online education. By using internet students can collaborate with classmates. It helps them in group assignments, studies, store homework and test-related materials on remote servers as a backup and later on they can easily can those materials from anywhere or anytime. It also helpful for higher learning as well as provide greater choice to learner. Teachers can use audio, video and graphics aids to prepare lesson plans. Teachers can use multimedia presentations to deliver interactive participatory pedagogy.

#### **❖ Minimal hardware requirements**

cloud-based applications, required minimum hardware resources. Basically, it can be operating seamlessly on internet browsers, both on desktops and mobile devices. Students can easily manage to learn with the portable device such as mobile phone. The benefits of cloud computing for the education sector are cultivated. It does not come as a surprise that major providers in the industry are fast embracing cloud tech so that they can enhance the services they deliver.

### **Motivating Factors and Challenges**

- Cloud computing is used for accessing resources such services, app, data, servers and computer networks.

- By using this data and information can be accessed contrivances more reliable and efficient just providing nominal administration effort.
- So, cloud technology fully depends on the allocation of resources to attain consistency and economy of scale, similar to utility, it is also benefitable for many small businesses as well as firms because of low cost.
- Before implementation cloud computing technology every organization must consider many challenges involved in cloud computing.
- It provides greater flexibility in the computing services which were purchases by organization.
- No matter whether you are running small or larger business, cloud computing provides security as well as protect the data it also increases the flexibility storage of data.
- It doesn't require any extra maintenance charges. One can easily share the information by using cloud computing.
- It is best option to make sure that relevant data or information has secured as well as protected.
- ❖ **Security and Privacy:**
  - ✓ These challenges can reduce by using security applications, encrypted file systems, data or info loss software.
  - ✓ Business must employ multi-factor authentication and make sure that passwords are protected and altered regularly, particularly when staff members leave. Access rights related to passwords and users should only anyone allocated to those who require them.
- ❖ **Interoperability**
  - ✓ migration services in and out of the cloud is provided.
  - ✓ Without any bond period it can create obstacles for customers.
  - ✓ One of the cloud challenges is remote access that can be eliminated by the cloud provider so that the customer can get security from the cloud anywhere.
- ❖ **Portability**
  - ✓ The applications running on one cloud platform can be moved to new cloud platform and it must operate correctly without any changes in design, coding.
  - ✓ The portability is not possible. So, each of the cloud provider's uses different standard languages for their platform.
- ❖ **Computing Performance**
  - ✓ High network bandwidth is needed for data intensive applications on cloud, that result in high cost.
  - ✓ The expenses of transferring the data to public clouds can prove to be problem for short- lived and small-scale projects.

## CONCLUSION

This paper discussed the scope and challenges as well as popular platforms of cloud computing. Cloud computing becoming attractive paradigm, for small as well as large enterprises. There are lots of benefits of cloud computing such as virtualization technology which provides good support to achieve aim for higher resource utilization as well as it also reduced IT cost or capital expenditure to handle temporary loads as well as cloud computing have various flexible service and deployment models which is also one of the main issues of adopting this computing paradigm. It is less customizable means you can change resources as per your requirement. Business organizations requires a dynamic, secure demand-based need for management. So, there is need to focus on security as well as privacy to maintain trust level of organization and any one can deploy the cloud computing without any hesitation.

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## THE GROWING VULNERABILITY OF INFORMAL WORKERS IN INDIA AN OVERVIEW AND SUGGESTIONS

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Vaidehi Dhamankar

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### ABSTRACT

*The Indian economy experienced an enviable growth rate in the last decade and hoped to grow steadily ahead on the path of higher GDP and growing markets. The economy has been upheld significantly by the workers who are the building blocks of this growth story and lie at the bottom of the pyramid. They are known differently as informal, unorganised, or simply the ones without much social security. This sector and its workers have always precariously managed their livelihoods and sought refuge in self-employment, while at the same time contributing to the GDP significantly. With the massive disruptions created by the Pandemic, the sector has fallen through the crack without any means to cope with the loss in jobs and no clear path of recovery in future. In this context, it is useful to understand the extent of damage done to this group of workers and what could be the possible solutions in future, given, the fact that Pandemic has casted a new normal. The present paper attempts to understand the loss in livelihoods across the informal sector and offer some possible solutions, both – what is done by the government and measures that may help to better the outcome.*

*Keywords: Informal sector, livelihoods, Pandemic, unemployment*

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### METHODOLOGY

The paper has used secondary data from national and international research sources, e-journals, and online content. Data and information presented in current study are collected from various reports prepared by national and international agencies. Information is collected from various authentic websites

### INTRODUCTION

The informal sector in India constitutes 90% of the workforce and as per Government of India statistics, the unorganised sector contributes almost 50% of the total GDP. The COVID-19 pandemic triggered lockdown in its four phases (Phase 1: from 25 March to 4 April, Phase 2 from 15 April to 3 May, Phase 3 from 4 May to 17 May and Phase 4 from 18 May to 31 May 2020) These lockdowns created a surge of panic and frenzy for the millions employed in the informal economy. With subsequent unlock of the lockdown in June and July 2020, there was a widespread exodus of the workers who are predominantly migrants, to their respective hometowns. The pandemic has highlighted major challenges for the informal sector workforce, not only in the public health system in India, but also in terms of the inequalities and vulnerabilities in all sectors of the economy and society. (Vibhuti Patel)

### OBJECTIVES OF THE STUDY

**The paper is divided into Three sections.**

1. To understand the magnitude of presence of the informal sector in Indian economy.
2. It aims to trace the extent of impact on the informal sector workers in the form of job loss and other possible threats.
3. It attempts to present policy measures taken by the government to ease the damage on informal sector and to provide a few suggestions to improve the position of informal sector.

### MAGNITUDE OF INFORMALITY IN INDIAN LABOUR FORCE

One of the most surprising fact about this sector is the blurring of definitions which are used for it. The First Indian National Commission on Labour (1966- 69) defined, unorganised sector workforce as – “those workers who have not been able to organize themselves in pursuit of their common interest due to certain constraints like casual nature of employment, ignorance and illiteracy, small and scattered size of establishments”.

National Commission for Enterprises in the Unorganized Sector (NCEUS) noted that employment in India can be meaningfully grouped into four categories to reflect quality and its sectoral association. These are

- a) Formal employment in the formal or organised sector,
- b) Informal employment in the formal sector,
- c) Formal employment in the informal sector and,
- d) Informal employment in the informal sector.

In India, the informal sector mostly referring to the categories b and d of the above definition. This considers a wide range of workers who are either self-employed or salaried but have no formal contracts. It includes a wide range of occupations such as street vendors, Hawkers, auto and taxi drivers, coolies, porters, head loaders, street food vendors, barbers, cobblers, rag pickers and marginal farmers. The common feature between all of them being a lack of social security, trying working conditions (in some cases more so), no collective bargaining power and daily wage/earning situation.

As per the periodic Labour force survey conducted in 2018 -2019, the informal sector and conditions of employment are as under:

Type of workers	% of workers in the informal sector		
	Total (%)	Male (%)	Female (%)
Non agriculture sector workers in informal sector	68.4	71.5	54.1
Waged /salaried workers with no Job contract	69.5	70.3	66.5
Waged/salaried workers eligible for paid leave	53.8	54.7	50.6
Waged/salaried without social security	51.9	51.2	54.4

Source: Periodic Labour Survey of India, Annual Report, July 2018-June 2019

The table reflects only the part of informal sector which is salaried. It does not include the workers who are self employed which is also a large number in India. The figures show that a massive number of workers working in the unorganised sector are not covered under labour legislation and they have absolutely no protection in terms of employment as they do not have an appointment letter, contract, guarantee for wages, health facilities, insurance, etc. They are at the mercy of the employer. While small traders, hawkers and daily wage-earning labourers accounted for most of this loss (90 million), by April 2020, the count of salaried employees too fell during this period by 18 million. (*Radhika Kapoor*). The extent of job losses in the sector is worrisome on account of two important counts:

- It increases the number of people pushed in absolute poverty
- It further exacerbates the inequality of incomes.
- It may bring structural transformation by sustaining reverse migration.

### Impact on the informal workers

We can discuss the impact of the Pandemic on this sector by looking at the socio-economic shocks visible in the sector. The impacts have not been restricted only to financial vulnerabilities but also the disproportionate burden falling on female informal workers. Data from the PLFS shows that 42.2 % of RWS (Regular Wage Salaried) workers earned below ₹9750 per month (or ₹375 per day), an amount recommended as a national minimum wage by an Expert Committee appointed by the Government of India (January 2019). For casual workers, the share of those earning below ₹375 a day was even higher at 92.5%. India is estimated to have its 12 million citizens pushed in extreme poverty post pandemic, (Bloomberg, 2020). In India, recent evidence suggests that wages of formal workers were cut by 3.6 per cent, while informal workers experienced a much sharper fall in wages of 22.6 per cent during the Covid-19-induced lockdown, the International Labour Organisation's (ILO) Global Wage Report has said.

The unequal gendered division of domestic chores existed even before the onset of the pandemic, but the COVID-19- induced lockdowns have further worsened the situation. Considering the disproportionate burden of the crisis on low skilled workers, poor, other vulnerable sections, many economists think that COVID-19 is most likely expected to raise inequality within and among countries (*Ranjan Aneja, Vaishali Ahuja*) Covid-19 exacerbated pre-existing labour income inequality – those in the top quartile of pre-Covid income saw their share in total income increase by 16 percentage points within three months. (*Shania Bhalotia, Swati Dhingra and Fjolla Kondirolli*)

Along with the gross imbalances in gender distribution of unpaid care work, the pandemic might worsen the situation by increasing women's burden of domestic chores, unduly cuts and lay-offs in employment. (*Shiney Chakrobarty*) Shadow pandemic of gender-based violence took a heavy toll on women with no financial security and the ones who were economically dependent were subject to more abuse in rural and urban India. The other disturbing impact of the Pandemic has been a move towards reverse migration which was so unprecedented in the months of June to August 2020, that many economists fear this may be more than a temporary phenomenon with far reaching effects on rural economy and farm employment. The World Bank estimates that the magnitude of internal migration is about two-and-a-half times that of international migration. Within India, an estimated 40 million internal migrant workers, largely in the informal economy, were severely

impacted by the government's COVID-19 lockdown. These workers were forced to take the long road to their homes mostly on feet with little or money, food, or footwear. Many reported to lose their lives on the way.

#### **Policy measures undertaken for the Informal sector**

The central government extended help to the impacted economy by rolling out stimulus packages in three phases, on 26 March 2020, INR 1.7 trillion (~USD 22 billion) relief package was announced by the Finance Minister. On 15 May 2020 the Prime Minister of India declared a COVID relief package of INR 20 trillion (~USD 260 billion) and on 14 Nov 2020 INR 2.65 lakh crore comprehensive stimulus package announced by the Finance Minister. Apart from these, two specific type of measures were also provided:

1. Provision of food support through different schemes:
  - a) The government declared to cover two-thirds of population under the Pradhan Mantri Garib Kalyan Anna Yojana (Food scheme)
  - b) The Scheme has made provision to give 5 Kg of food grains per person, per month free of cost for three months starting from April 2020.
2. Direct benefit transfers:
  - a) Farmers received INR 6,000 every year through the PM-KISAN scheme (minimum income support scheme) in three equal instalments. The government gave the first instalment upfront for fiscal year starting April 2020.
  - b) MNREGA workers got a wage increase from INR 182 to INR 202. Such increase would benefit 50 million families. The wage increase will amount into an additional income of INR 2,000 per worker.

These benefits failed to fully ease the worries of the people as they are linked with the ration cards and many migrant workers were without it. In this scenario, the governments and policy makers need to make more holistic and inclusive policies.

#### **SUGGESTIONS FOR IMPROVING THE SCOPE AND CONDITIONS OF INFORMAL SECTOR:**

The idea of Universal Basic Income and a national-level Employment Guarantee Scheme on the lines of the already successful MGNREGA, needs to be pushed by the government to respond effectively to the pandemic costs bearing upon the poor and the marginalised. (*Faraz Khan and Kashif Mansoori*) The working poor in the informal economy are positively affected by collaboration and cooperation. There is a need to help them getting organised. Organisation can be initiated with the help of an NGO, self-help group or alliance with large and strong unions as in case of farmers. The process of unifying under an umbrella would give them the power of solidarity and a way to be seen and heard by the decision makers.

The role of MSME's in the informal sector growth cannot be ignored. These industries can play a vital role in improving the conditions of the informal workers by means of skill development, on job training and internships. At the same time, the employers of the firms can be brought under stricter rules to abide by the social security and working conditions protocols.

#### **CONCLUSION**

It is widely accepted that the post-Covid world will not be the same. Moreover, since the social inequities exposed by Pandemic are so glaring, it will be morally unacceptable to recover economies in the same form. The new normal has forced India to rethink about the traditional economic theories which relied on the flexibility of labour supply. The Pandemic pushes the policy makers and firms to reimagine their occupation and work structures in a way which is just, humane, and sustainable to the millions of workers in this sector and help to fulfil their right of becoming "*visible workers*" from their current state of being "*invisible workers*".

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**‘CHALLENGES AND OPPORTUNITIES FOR SKILL DEVELOPMENT ON EMPLOYABILITY IN DEVELOPING COUNTRIES (INDIA)’ YOUTH EMPLOYMENT IN THE DEVELOPMENT PERSPECTIVE**

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**ABSTRACT**

*The purpose of this paper is to introduce a straightforward, practical model of employability that will allow the concept to be explained easily and that can be used as a framework for working with students to develop their employability.*

*Keywords: Employment, Career, development, Higher education, Graduates,*

*Methodology: This research work is based on Secondary Data.*

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**INTRODUCTION**

Skill development is an important driver to address poverty reduction by improving employability, productivity and helping sustainable enterprise development and inclusive growth. It facilitates a cycle of high productivity, increased employment opportunities, income growth and development. However, this is just one factor among many affecting the productivity whose measurement differs for individuals, enterprise and economy. The increase in productivity could be due to availability of skilled & healthy manpower; technological up gradation and innovative practices; and sound macroeconomic strategies. The manifestations of improved productivity can be in the form of improvement in real gross domestic product (economy), increased profit (enterprises) and higher wages (workers). In this section, we are looking into the relationship between skill development and productivity with focus on India. However, to be again with it is necessary to understand what constitutes productivity and how it is measured at different levels.

Productivity which explains an input-output relationship is a crucial factor whose benefits can be distributed in a number of different ways such as better wages and working conditions to workforce; increased profits and dividend to shareholders; environmental protection; and increase in revenue to Governments. This helps both the enterprise and country to remain competitive in the domestic and global market respectively. The increase in productivity can be attributed to varied reasons such as new technology, new machines, better management practices; investment in plant and equipment and technology, occupation safety improvement in the skill level of workers; macro-economic policies, labour market conditions, business environment and public investment in infrastructure and education. Therefore, it is evident that skill development is just one factor necessary for the productivity growth and it needs to be an integral part of the development policies. The policies should address the levels of development and need and requirement of various sectors. Besides this the skill policy should focus on improving access, quality and relevance of training for different segments and sectors. The evidence from developed countries suggests that investment in education and skills helps economy to move to high growth sectors and break the low wage, low skill development syndrome.

Different countries at different levels of development face different challenges. In the context of developing economies like India the challenge is to meet the skilled manpower requirement of the high growing sectors on the one hand through better synergy between employers and the training providers, increased investment in the training infrastructure and also to ensure that the informal economy also have skilled manpower wherein the informally trained skills are recognised and certified and that entrepreneurship training is provided for moving to formal sector. The workplace training plays an important role in productivity enhancement but in the developing economies the huge informal economy poses a challenge which could be addressed by developing clusters or lead firm taking the initiative which would help achieving economies of scale in the skills development; development of competencies within and between firms and availability of lead firm facilities. This would make available skilled manpower by the lead firm as per its requirement and the small enterprise would improve their productivity.

**OBJECTIVE OF THE SKILL DEVELOPMENT ARE**

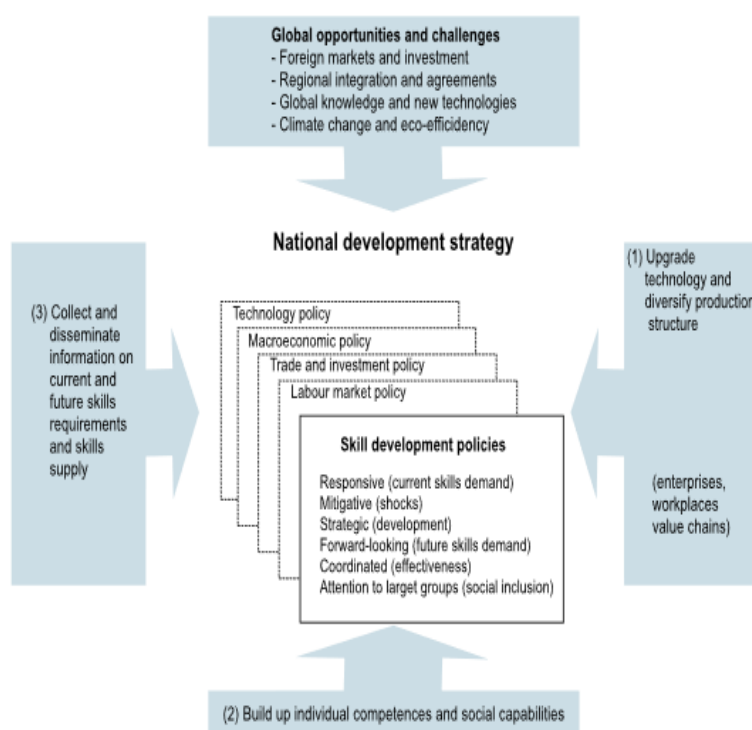
- To provide vocational training to school leavers, existing workers, ITI graduates, etc. to improve their employability by optimally utilizing the infrastructure available in Government, private institutions and the Industry. Existing skills of the persons can also be tested and certified under this scheme.

- To build capacity in the area of development of competency standards, course curricula, learning material and assessment standards in the country.
- Priority will be given to covering those above the age of 14 years who have been or withdrawn as child labour to enable them to learn employable skills in order to get gainful employment.

### METHODOLOGY OF STUDY

Secondary research was conducted to review the present status of skill development. The information and data for the research can be collected through primary as well as secondary source i.e. published articles, journals, news papers, reports, books and website. Data has been collected from the website of Skill development and also taken from various committee reports submitted to Govt. of India on Development of Skill development.

### Skills development strategy for productivity, employment and sustainable development



### Meaning

Employability skills have been defined as: "A set of achievements, understandings and personal attributes that make individuals more likely to gain employment and to be successful in their chosen occupations".

Employability Skills can be defined as the transferable skills needed by an individual to make them 'employable'. Along with good technical understanding and subject knowledge, employers often outline a set of skills that they want from an employee.

Employability skills are a set of skills and behaviors that are necessary for every job. Employability skills are sometimes called soft skills, foundational skills, work-readiness skills, or job-readiness skills.

### Employability skills or "soft skills" are the key to workplace success.

Employability skills are a set of skills and behaviors that are necessary for every job. Employability skills are sometimes called soft skills, foundational skills, work-readiness skills, or job-readiness skills.

Employability skills allow you to:

- Communicate with coworkers
- Solve problems
- Understand your role within the team
- Make responsible choices, and
- Take charge of your own career

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Personal qualities, habits, and attitudes influence how you interact with others. Employers value employability skills because they are linked to how you get along with coworkers and customers, your job performance, and your career success.

**How to Improve Employability Skills**

Employability skills are the traits and talents that make you an attractive candidate for a job. Improving your employability skills through education, training and practical applications can give you an edge in the job market. In addition to giving you an advantage in your job search, these employability skills may also position you for higher-earning roles with greater growth potential.

**Foundational Skills**

1. Be organized.
2. Be sincere towards the work
3. Arrive to work on time, be punctual.
4. Be dependable.
5. Have a positive attitude towards work.
6. Exert high levels of effort and perseverance.
7. Complete tasks on time and accurately.
8. Seek out information to improve skills.
9. Be flexible and adaptable.
10. Complete all tasks, even if unpleasant.
11. Understand dress code or uniform guidelines.
12. Maintain personal hygiene.

**Interpersonal Skills**

1. Be friendly and polite.
2. Respect supervisors and co-workers.
3. Respond appropriately to customers requests.
4. Ask for feedback.
5. Take constructive criticism.
6. Resolve conflicts calmly and appropriately.

**Communication Skills**

1. Read and understand written materials.
2. Listen, understand, and ask questions.
3. Follow directions.
4. Express ideas clearly when speaking or writing.
5. Learn required technology and use appropriately.

**Problem Solving and Critical Thinking**

1. Accept change.
2. Be willing to start, stop, and switch duties.
3. Work calmly in busy environments.
4. Start tasks without prompting.
5. Ask questions to solve problems do job better.

**Teamwork**

1. Be comfortable working with people of diverse backgrounds.

2. Be sensitive to other peoples' needs.
3. Take responsibility for own share of work.
4. Contribute to team goals.

**Ethics and Legal Responsibilities**

1. Take responsibility for own decisions and actions.
2. Understand and follow company rules and procedures.
3. Be honest and trustworthy.
4. Act professionally and with maturity.

**Professional Skills**

The general employability skills above help you to get hired and to keep any job. In addition, anyone who wants to advance in their careers and people working in higher-level jobs should have the following professional skills.

**Career Development**

1. Learn new skills and take on different projects.
2. Serve on work committees.
3. Take initiative and work with little supervision.
4. Understand your industry and common business practices.
5. Align your work goals with the mission and vision of your employer.
6. Understand the different roles of coworkers.

**Leadership**

1. Coach and mentor others.
2. Be willing to take risks.
3. Be able to negotiate.
4. Motivate and direct people as they work.
5. Demonstrate efficiency.
6. Seek to simplify processes.
7. Save time or money for the company by analyzing business needs.
8. Build partnerships and teams with coworkers.

There is a dual challenge of developing skills and utilizing them in a proper way. The Economic Survey 2014-15 has stated that as per the Labour Bureau Report 2014, the present skilled workforce in India is only 2 percent, which is much lower when compared to the developing nations. As per the report, the number persons aged 15 years who have received or be receiving skills is merely 6.8 percent.

The Economic Survey has shown the cause for concern is the deceleration in the compound annual growth rate of employment during 2004-05 to 2011-12 to 0.5 percent from 2.8 percent during 1999-2000 to 2004-05 as against growth rate of 2.9 percent and 0.4 percent respectively in the labour force for the same periods.

There have also been structural changes to the share of primary sector in total employment has dipped below the halfway mark while employment in secondary and tertiary sectors have shown a considerable increase. Self-employment continues to dominate, with a 52.2 percent share in total employment with significant share of workers engaged in low-income-generation activities, the Economic Survey added.

The Economic Survey also observed that there are other issues of concern like poor employment growth in rural areas, particularly among women. In order to improve generation of productive employment under the Mahatma Gandhi National Rural Employment Guarantee Act, the Intensive and Participatory Planning Exercise has been initiated to prepare the labour budget for financial year 2015-16 in selected 2500 backward blocks using participatory rural appraisal technique.

The Economic Survey 2014-15 has concluded that a major impediment to the pace of quality employment generation in India is the small share of manufacturing in total employment. However, data from the 68th NSSO round (2011-12) indicates a revival in employment growth in manufacturing from 11 percent in 2009-10 to 12.6 percent in 2011-12. This is significant given that the National Manufacturing Policy 2011 has set a target of creating 100 million jobs by 2022. Promoting growth of micro, small, and medium enterprises is critical from the perspective of job creation which has been recognized as a prime mover of the development agenda in India.

Size by Class Employment	Item	2010	2012	2014	2015
1 to5	Establishments	90.4%	93.2%	93.91%	95.31%
65.7%	Personals usually working	-----	55.4%	58.23%	59.23%
6 to10	Establishments	3.5%	3.6%	3.3%	3.5%
10.3%	Personals usually working		8.5%	8.4%	8.3%
11 and Above	Establishments	3.1%	2.8%	1.6%	1.5%
	Personals usually working	-----	37.1%	33.1%	24.32%

### **Possible solution for skill development:**

#### *Examples of ways to develop skills*

You could also use these as evidence in an application to show you had these skills.

WRITING	SPEAKING	ADAPTABILITY
<ul style="list-style-type: none"> <li>Writing up a project or dissertation</li> <li>Writing for the student newspaper</li> <li>Writing a report for a course placement</li> <li>Essays, dissertations, project reports</li> <li>Secretary of student society</li> <li>Publicity materials for a charity</li> <li>Letter to raise sponsorship for an event</li> </ul>	<ul style="list-style-type: none"> <li>Joining a campus drama group.</li> <li>Public speaking or debating</li> <li>Seminars</li> <li>Working as a receptionist in a vacation job</li> <li>Market research, telesales, bar work</li> <li>Showing 6th formers round campus</li> <li>Course presentations</li> <li>Student radio presenter</li> </ul>	<ul style="list-style-type: none"> <li>Year abroad or independent travel abroad</li> <li>Working part-time while studying</li> <li>Changing courses</li> <li>Combining study with family</li> <li>Shift work or working at short notice</li> </ul>

INVESTIGATING skills	LISTENING skills	LEARNING NEW SKILLS
<ul style="list-style-type: none"> <li>Negotiating the rent with your landlord</li> <li>Negotiating the late handing in of essays</li> <li>Staff-student liaison committee</li> <li>Resolving an argument between friends</li> </ul>	<ul style="list-style-type: none"> <li>In lectures!</li> <li>Helping the student telephone counseling service</li> <li>Working as a waiter or barmaid</li> </ul>	<ul style="list-style-type: none"> <li>Learning a new language</li> <li>Taking up a new sport</li> <li>Improving your computing skills</li> <li>First aid</li> <li>Music grades</li> </ul>

CO-OPERATING SKILLS	ANALYSING SKILLS	INITIATIVE
<ul style="list-style-type: none"> <li>Working on a group project</li> <li>Rag fund-raising</li> <li>Team sports</li> </ul>	<ul style="list-style-type: none"> <li>Preparing Student Election Statistics</li> <li>Analyzing data from an</li> </ul>	<ul style="list-style-type: none"> <li>Suggesting changes to a course when a student representative</li> <li>Getting relevant work</li> </ul>

<ul style="list-style-type: none"> <li>Working as a clerical assistant in a busy office</li> <li>Group project</li> <li>Duke of Edinburgh's Award</li> <li>Team sports</li> <li>Playing in an orchestra or band</li> </ul>	<ul style="list-style-type: none"> <li>experiment</li> <li>Vacation job as a market research interviewer</li> <li>Voluntary work for a publisher</li> <li>Creative solutions to coursework problems</li> <li>Chess, computing, role playing</li> <li>Overcoming obstacles to achieve an ambition e.g. Raleigh International</li> </ul>	<ul style="list-style-type: none"> <li>experience/project work/sponsorship</li> <li>Starting your own business: selling on EBay</li> <li>Starting a new society</li> <li>Creating a website</li> <li>Coping with a sudden crisis</li> <li>Stretching your loan to go further</li> </ul>
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NEGOTIATING skills	PERSUADING skills	NETWORKING
<ul style="list-style-type: none"> <li>Negotiating the rent with your landlord</li> <li>Negotiating the late handing in of essays</li> <li>Staff-student liaison committee</li> <li>Resolving an argument between friends</li> </ul>	<ul style="list-style-type: none"> <li>Arguing your case in a seminar</li> <li>Getting club members to turn up for events!</li> <li>Fund-raising for a local charity</li> <li>Telesales job in the vacation</li> </ul>	<ul style="list-style-type: none"> <li>Careers fairs</li> <li>Speculative applications for work</li> </ul>

PLANNING AND ORGANISING SKILLS	LEADERSHIP SKILLS	SELF RELIANCE
<ul style="list-style-type: none"> <li>Organizing your revision schedule</li> <li>Planning a trip round Europe with friends</li> <li>Stage manager for a play</li> <li>Campsite representative for Euro camp</li> <li>Managing a course project</li> <li>Organizing sporting events</li> <li>Organizing charity events</li> <li>Students' union activities</li> <li>Organizing concerts for the elderly</li> </ul>	<ul style="list-style-type: none"> <li>Leading a group project</li> <li>Chairing a student society</li> <li>Captaining a sports team</li> <li>Being a play scheme helper</li> <li>Guide leader</li> <li>Air training corps</li> <li>Course or hall representative</li> <li>Mentor in school</li> </ul>	<ul style="list-style-type: none"> <li>Duke of Edinburgh's Award</li> <li>Young Enterprise</li> <li>Music band: playing concerts regularly</li> <li>Competitive sport</li> <li>Amateur drama</li> </ul>

DECISION-MAKING skills	NUMERACY	COMMERCIAL AWARENESS
<ul style="list-style-type: none"> <li>Deciding which modules to take next year</li> <li>College Welfare Representative</li> </ul>	<ul style="list-style-type: none"> <li>Working in a pub or bank</li> <li>Budgeting your expenses over the year</li> <li>Interpreting a statistical table</li> </ul>	<ul style="list-style-type: none"> <li>Current affairs interest</li> <li>Taking business options on a course</li> <li>Organising events</li> </ul>

<ul style="list-style-type: none"> <li>▪ Buying an expensive item (car or computer)</li> <li>▪ Targeting appropriate customers in a sales job</li> </ul>	<p>for your course</p> <ul style="list-style-type: none"> <li>▪ Treasurer of committee</li> <li>▪ Fantasy share portfolio e.g. BullBearings</li> </ul>	<ul style="list-style-type: none"> <li>▪ Reading financial pages of a newspaper</li> <li>▪ Fantasy share portfolio e.g. BullBearings</li> </ul>
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## CONCLUSION

The important role of skills development for social and economic development and decent work was highlighted in a series of discussions and conclusions, in particular, the Conclusions concerning human resources development, the Global Employment Agenda adopted by the Governing Body in March 2014, the conclusions on promoting pathways to decent work for youth and the conclusions on the promotion of sustainable enterprises. In addition, the Paid Educational Leave Convention, 1974 (No. 140) and the Tripartite Declaration of Principles concerning Multinational Enterprises and Social Policy (1977, as amended in 2000 and 2006) (MNE Declaration) are also relevant with respect to opportunities for training.

**Education**, vocational training and lifelong learning are central pillars of employability, employment of workers and sustainable enterprise development within the Decent Work Agenda, and thus contribute to achieving the Millennium Development Goals to reduce poverty. Skills development is key in stimulating a sustainable development process and can make a contribution to facilitating the transition from the informal to the formal economy. Skills development is also essential to address the opportunities and challenges to meet new demands of changing economies and new technologies in the context of globalization. The principles and values of decent work and principles of sustainable enterprises in line with the conclusions on the promotion of sustainable enterprises (ILC, 2007) provide guidance for the design and delivery of skills development and are an effective way of efficiently managing socially just transitions. Governments and social partners need to work in the framework of social dialogue for shaping national, regional and international skills development programmes that can promote the integration of the economic, social and environmental dimensions of sustainable development.

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**CHALLENGES AND OPPORTUNITIES FOR ONLINE EDUCATION IN INDIA**

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**1. ABSTRACT**

*Considering the rapid change in technology, inevitable changes in education sector are going to happen. A lot of research is taking place to understand the pros and cons of online education in comparison to face to face education. In India, there are a lot of challenges and opportunities for online education. With a comprehensive literature review, in this paper, we have identified key factors which will boost online education in India. We have identified internet penetration; low cost of online education, ease of doing course, initiative by government, employer's recognition and bridging gap are the key factors the growth of online education. There are certain factors which are creating a hindrance in the growth which include insufficient digital infrastructure, credibility and language used in online education. With the increase in number of internet users in India, the paper also looks into what opportunities are there in future in education sector.*

*Keywords: Online education; Face to face education; Challenges and opportunities; Digital infrastructure.*

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**2. INTRODUCTION**

The growth of technology has brought tremendous change in the almost every sphere of life. Technology has also impacted the process of education. The face to face education has experienced a remarkable change in the last 10 years. Although face to face education is still considered the norm, but acceptance of online courses is increasing in the field of management and engineering. Some of the reasons for the exponential growth of online education is that it is instant, online, anywhere accessible, self-driven and on the go.

The major reason for the phenomenal growth in online education is MOOCs (Massive Open online courses). According to Kaplan, Andreas M.; Haenlein, Michael (2016), MOOCs are online courses which are aimed at unlimited participation and offer open access through the web. MOOCs have gained lot of popularity since the time of its development in 2008. Over 800 universities around the world have launched at least one MOOC till date. According to report by Class Central, there were 83 million students who had registered for MOOCs by December, 2017. The list of top five MOOC provider by registered users include Coursera, edX, XuetangX, Udacity and FutureLearn.

The government is supporting online education in India because of its potential to improve education quality and reach through the Digital India initiative. Government of India in Association with Ministry of HRD has initiated a programme named SWAYAM (Study Webs of Active – Learning for Young Aspiring Minds) that is designed to achieve the three fundamental objectives of Education Policy i.e., access, equity and quality. The main objectives of this effort are to take the quality teaching learning resources to all, including those who cannot afford. This program SWAYAM seeks to provide education to those students who are not yet aware of the digital revolution taking place and are still not able to join the mainstream of the knowledge economy. Nearly 2000 online courses are offered through Swayam and approximately 150 million students across the globe are enrolled in different courses.

**3. REVIEW OF LITERATURE**

There are many definitions of online learning. Khan (1997) has defined online learning as the delivery of instruction to a remote audience using the web as an intermediary. Elaine Allen, Jeff Seaman (2011) have defined Online courses as those in which minimum 80 percent of the course content is delivered online and Face-to-face instruction are those courses in which less than 30 percent of the content is delivered online.

According to Stack, Steven Dr. (2015), online education has proliferated in the last decade. His research has not found any major difference in the scores of the students taking online course and face to face classes.

Another research done by Dr. Fahad N. Al-FAHAD investigates the students' attitudes and perceptions of 186 University Student's from different colleges towards effectiveness of mobile learning in their studies. Their research findings indicate that students perceive Mobile technologies as an effective tool in improving their communication and learning.

Herman, T., & Banister, S. had done a research on comparison of cost and learning outcomes of traditional and Online coursework. Their findings shows that online course engages students in the learning process, supports strong student learning outcomes, and saves cost for the university also.

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#### 4. DRIVERS OF ONLINE EDUCATION GROWTH IN INDIA

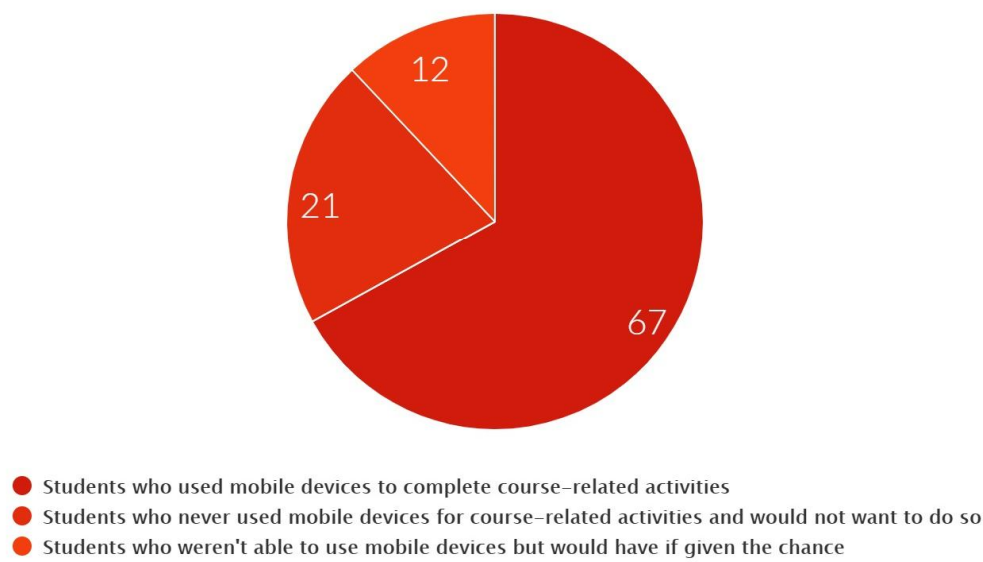
Acceptability of online education in India is growing at an exponential rate because of the following factors:

1. **Internet penetration in India:** According to a report by IAMAI and Kantar IMRB, there were 481 million users of internet in India and this is growing at the rate of 11.34%. Also internet penetration in urban India was 64.84% while in rural India it was 20.26% till December, 2017. The main reason for the growth of internet users in India is the increase in number of smart phone users. According to a report by eMarketer, the US-based market research firm, there were nearly 291.6 million smart phone users in India by the December, 2017. They are expecting that this number will grow by 15.6% to reach 337 million by the end of 2018. The key factors behind this growth are the upsurge in smart phone usage and availability of more affordable smart phones. Availability of internet at fast speed and at very affordable price is the reason for growth in mobile internet user. Because of internet, world class education becomes easily accessible to urban and rural population.
2. **Online education saves money and time:** As online education is through internet, so it can be easily accessed anywhere, anytime. You can access the content early morning, late evening, at home, in cafeteria, or on the train. As the content is generally preloaded, so you can download the lectures / videos and watch them at your convenience time and again. Also cost of online education is very low in comparison to face to face education. Also there is a great savings on hostel and transportation fees. Since all the content is available online, so you need not buy books also.
3. **Ease of doing courses for working professionals:** Online education offers great opportunity for working professionals as they cannot leave their jobs to pursue higher education. Online education offers them a variety of courses to choose from and this can help in finding new career options for them. This is also supported by the report from Google and KPMG which states that reskilling and online certification is the biggest sector in online education. Another online platform 'upgrad' is offering online courses on Big Data and are also providing jobs in this area.
4. **Initiative by Government of India:** Government of India is also taking initiatives to promote online education. They have started Swayam through which they are offering free education and certification courses to all. Main objective of this initiative is to provide quality education for which they have tied up with IITs, IIMs and NPTEL. They are also tying up with universities by which student can earn credit through online courses. In order to establish digital infrastructure in India, the government has also launched National Optical Fiber Network. The main objective of this initiative is to increase broadband connectivity and create a fast network. Government has started online National Digital Library in which 17 million digital books & journals are available. There are 32 lakhs registered users are accessing NDL free of cost. Government has provided Wi-Fi facility to all the central universities.
5. **Gaining recognition among employers:** Today most of the universities in US are offering at least one online course. In India also many of the prestigious institutions are offering online courses where otherwise admission is very difficult and costly. Online courses done from well-respected universities/ institutions are accepted by employers. Employers also understand that online education requires self-discipline, drive and other skills that they are looking for in a candidate. So proper care should be taken in selecting the university from where you are doing course. Also, there are hundreds of options to choose from. Right selection from right educational institute can help you make right career growth.
6. **Bridge the gap between education level and industry expectations:** According to a report in The World Employment and Social Outlook – Trends, there were 18.3 million Indians unemployed in 2017 and it is projected to increase by 18.9 million by the year 2019. According to a report, India's working age population is increasing and is expected to reach 64% of the population by 2021. Do you think it is because of sufficient job opportunities are not available in India? Nascom says 6 million people will be required in cyber security by 2022. According to Tech Mahindra CEO C P Gurnani, 94% of IT graduates are not fit for hiring. According to opinion given by Sanjay Bansal, 58% of unemployed graduates and majority of the unemployed post-graduates (62%) states that jobs matching their skill and education are not available and this is the primary reason for their unemployment. So online education is one of the alternatives to bridge the gap between what industries expect and what the educational institutes are delivering. Online education offers an opportunity to enhance skills through advance courses available in different domains.

5. DATA ANALYSIS:

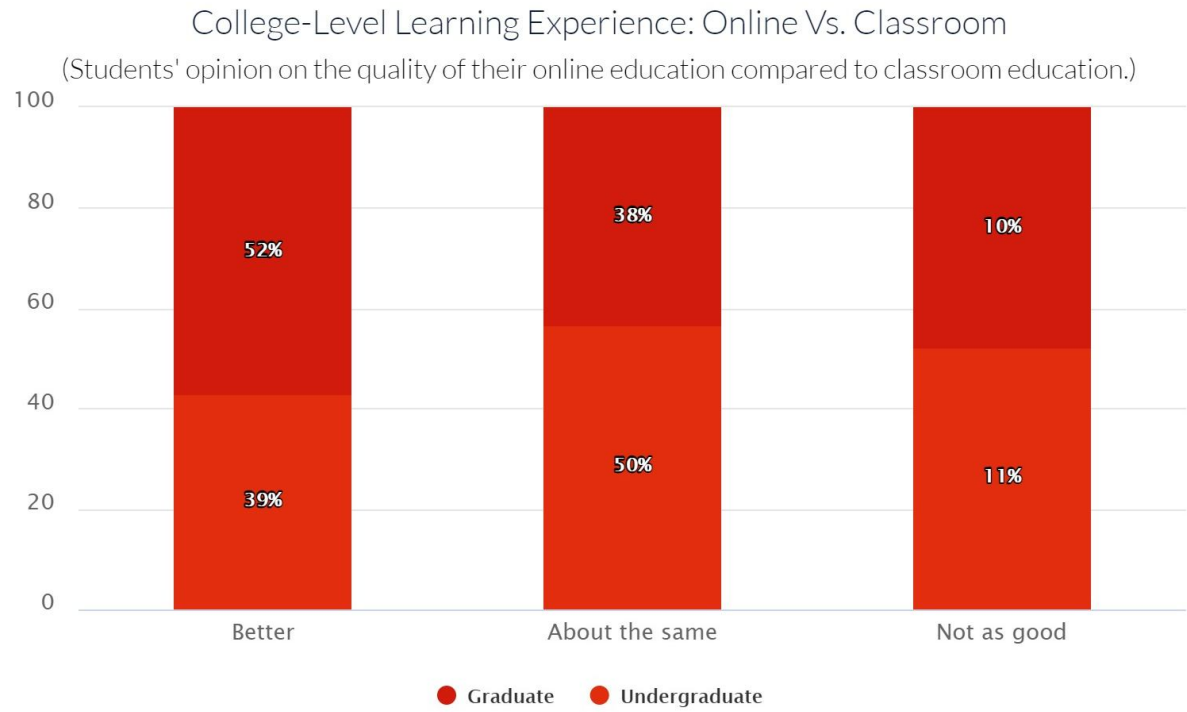
With the way 2020 is going, it is not a far-off assumption that this growth will rise exponentially in the upcoming academic years.

The Extent of Mobile Usage for Mobile Learning  
By Percentage of U.S. College Student Users



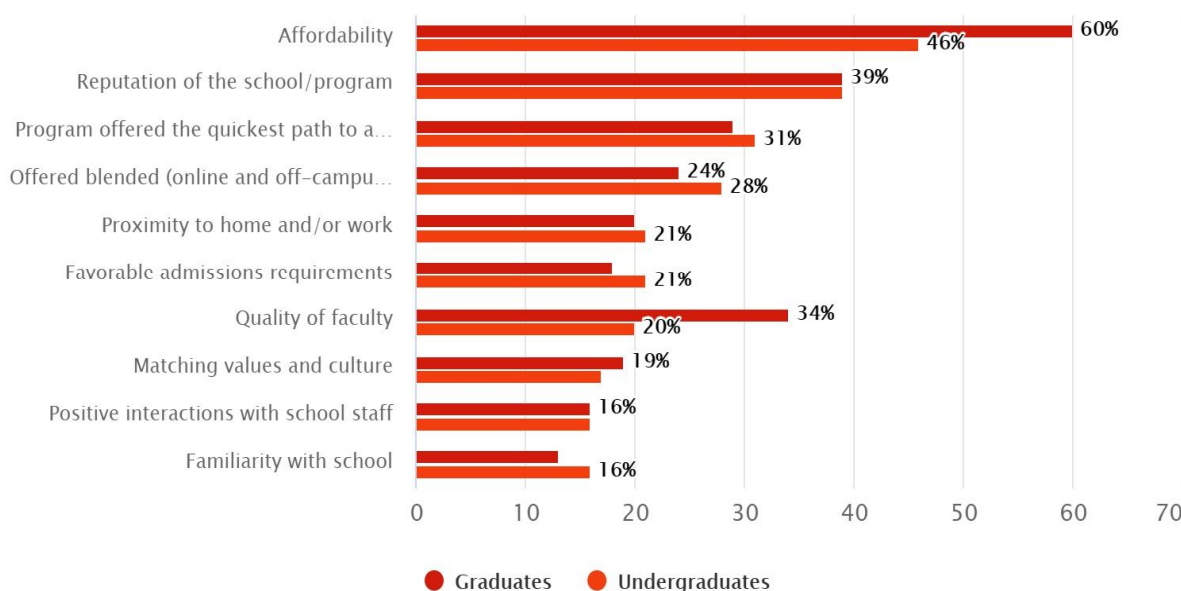
Source: Statista

Online learning emerged as a safe and viable option for education continuity as the COVID-19 pandemic turned personal and professional worlds upside down. Even before the pandemic, the global elearning market was already seeing a massive annual global growth. It is expected to reach \$336.98 billion by 2026, at a compound annual growth rate (CAGR) of 9.1% from 2018 to 2026 (Syngene Research, 2019). The growth estimates are likely to see an update sooner rather than later owing to the pandemic.



Source: Statista

## Top 10 Factors Students Consider When Choosing an Online Program



Source: Statista

**6. CHALLENGES IN ONLINE EDUCATION:**

There are a lot of challenges faced by people in online education in India. Some of these challenges which need to be overcome are:

1. **Insufficient digital infrastructure** Although Government of India is taking initiative to develop digital infrastructure but a lot need to be done in this direction. High speed internet and stable power supply are the biggest problem. India stands 89th worldwide on internet speed and stability. According to the report of World Economic Forum, only 15 percent of the households have access to the Internet, and mobile broadband remains accessible to very few i.e. only 5.5 subscriptions for every 100 people. Further, currently reach of broadband is just about 600 corridors, largely in and around the top 50 to 100 Indian cities, leaving rural areas with poor connectivity. 5G networks technology is the requirement of today's which will increase the speed of downloading the data.
2. **Limited Social interaction:** Since online education can be accessed at home or any other convenient place, there is very limited direct interaction with the teacher and other people doing the course. According to Dharendra Kumar (2010), especially those courses which are self-paced, there is very less discussion among the peers. Most of the discussion takes place through e mail, chat room or discussion groups. There isn't any campus atmosphere to improve social interaction. So you are not able to develop any social links which do help in the career growth.
3. **Questionable credibility of degrees:** Although industry has started recognizing online degrees, there are still a lot of fraudulent and non-accredited degrees being offered online. The number of scam operators is rising who are offering fake certificated which does not have any credentials. These scams not only losses the credibility of the online certificates but also the faith of prospective employer in online programs.
4. **Motivation:** Some students need the push to get to the class. In case of self-paced online programmes, student may procrastinate. The dropout rate in online education is very high. Self-motivation and discipline are required to complete the assignments and upload them timely. If you have difficulty working independently, staying organized and meeting deadlines, you might struggle in an online program.
5. **Language of the Course:** India is a multi-linguistic country, and a vast majority of the population comes from rural areas. The content offered by most of the online courses is in English. Hence, those students who are not able to speak English struggle with the availability of language content. Hence, it is the duty of computer professionals, educators, administrators, language content creators, and content disseminators, to sit together and give a viable framework and standard solution to the learners knowing only Indian languages.

**OPPORTUNITIES IN ONLINE EDUCATION:**

Change in technology is offering many opportunities for all stakeholders in the online education sector which includes entrepreneurs, education providers and learners. Some of the factors offering different opportunities in this domain include:

**1. Mobile Learning:**

According to a report in Stastia (2018), in the year 2017 there were 320.57 million people who accessed the internet through their mobile phone. This figure is projected to increase to 462.26 million by the year 2021. The surge in users is credited to availability of 4G internet and smart phones at very low price. Going forward, IAMAI hopes that the National Telecom Policy (NTP) 2018, which is focusing on new technologies like 5G, will promote better quality data services at more affordable prices and help address the digital divides that will promote internet penetration in the rural areas through mobile internet. According to report by Zenith, mobile devices will account for 73 per cent of time spent using the internet in 2018. So, the vast majority of students in future will have access to e-learning through mobile phones.

**2. Investor's Interest:**

A large number of entrepreneurs are venturing into online education as this is expected to see an uptrend in the next 5 years thanks to the Digital India campaign, the cultural importance given to education and falling mobile data prices. The Chang Zuckerberg Initiative has invested \$50 million in Byju's, Bertelsmann India has invested \$8.2 million in Eruditus, and Kaizen Management Advisors and DeVry Inc. have put in \$10 million in EduPristine. Khan Academy is a non-profit organization which receives financial support from philanthropic organizations like The Bill and Melinda Gates Foundation, Google and Netflix founder Reed Hastings. Online learning platform Unacademy also raised \$11.5 million of funding led by Sequoia India and SAIF Partners; and Eruditus Executive Education, a provider of executive education programmes, had raised \$8 million funding from Bertelsmann India Investments. So, the online education sector will continue to spark more interest among entrepreneurs, investors and attract more funding.

**3. Blended Model:**

There will be convergence of the offline education and online education in future. This concept of blended learning combines online digital media with traditional classroom methods. It requires the physical presence of both teacher and student, but student has some control over time, place, path, or pace. This model will take advantage of both face-to-face classroom practices combined with computer-mediated activities. In future, there will be virtual classrooms where face to face offline pedagogy will be aided by digital courses on practical knowledge and soft skills.

**4. New Courses:**

Today the most popular courses in online education are related to IT which includes subjects like big data, cloud computing, and digital marketing. But in future demand for different types of courses in unexpected subjects such as culinary management, photography, personality development, forensic science, cyber law, etc. will increase.

**CONCLUSION:**

Online education can change the whole future scenario in education if it can be implemented in joint collaboration with industry, universities and government. Drastic changes in course curriculum are required to bridge the gap so that students are industry ready after passing out. Education process needs to be changed by making it more practical with the use of technology. Also course should be designed in different language to increase their reach and more opportunities for youth of rural India. Innovations are required to design ways to increase the social skills of online learners.

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**CHALLENGES FOR GLOBAL BUSINESS WHICH AFFECTING BY CURRENT PANDEMIC PERIOD**

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**ABSTRACT**

Today World's pandemic situation is very critical for global businesses. This situation affects not only the economic consequences but all of the societies which are suffering from this Pandemic situation, which reflects mobility indices, labour participation rate and power demand. To overcome this situation the global businesses without any taking pause to came up with the new marketing strategies and prepared some innovative marketing planning. Marketing planning is nothing more than a systematic approach for business to consider the many alternatives and choices it faces due to changing nature of marketing environment. Accurate forecasting is the key for business- firms take new innovative strategies made changes in customers habits like how digital channels can use? and these changes supports business continuity during this pandemic. Many global businesses doing new communication strategies, Sales Promotional e-activities, Advertising Channels for their technosavy customers with the growth of their global business.

*Keywords: Global Business, Communication and Innovative Strategy, Customers, Sales Promotional e-activities, Advertising Channels, Marketing plans.*

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**INTRODUCTION**

Challenges is everywhere to grow for every business, without challenges there is no any market for the business to grow. Before pandemic challenges in business is on minor stage which can be solved with the short efforts and the regular marketing strategies, but the today's scenario challenges for the global business is pop up on very different and critical stages. To overcome such challenges with the help of new technological base marketing strategies invented by the global businessmen. For the growth of business market must be open, need to contact with the different people, need to deal on the different level, but during pandemic everywhere is lockdown, market is closed, people locked themselves in a home and therefore there is no any access to apply regular marketing strategies for the business. "Need is a mother of innovation"- like this phrase innovation is the key that creates opportunities and gets a competitive edge out of it. During this pandemic some businesses on global level took advantages to enhance their business which begins with the recognition of where are you? What you have now? Where do you want to go? How much time to have reach there? Such questions get resolved with new marketing strategies for the global business which supported by innovative ideas implemented in their businesses.

**MEANING OF MARKETING STRATEGY**

Strategy as a plan is a consciously intended course of action or a guideline to handle a situation. Therefore, strategies are well- through-out plans to handle future scenarios. Strategy is the bridge between policy or high-order goals on the one hand and tactics or concrete actions on the other. Strategy and tactics together bridge the gap between the ends and means. Strategy is the pattern of decision in a company that determines and reveals its objectives, purposes or goals, produce the principal policies and plans for achieving these goals. The ideal strategic plan also considers competitor's strategy, the dynamic changing environment and where the strategic plan will position your organization to compete most effectively.

**Objectives:** - A businessman decides to increase its sales by fifty percentage in the coming year, it is an objective.

**Strategy:** - In order to achieve the objective, he decides that sales will be increased through stockists and retailers, it is strategy.

**Tactics:** - For implementation of this strategy, it is decided that stockists will get two percentage commission on sales and an attractive incentive scheme will be launched for retailers, it is a tactics.

Marketing strategy as the instrument leading to attainment of the marketing objectives. It means that the burden of attaining the marketing objectives rests with marketing strategy. It is only logical then, that marketing strategy takes its direction and cue from the objectives and goals of the firm.

According to Michael E. Porter, "Marketing Strategy has mainly one aim-to cope with competition. There are five major and vital forces that decide the nature and intensity of competition-the threat of new entrants,

bargaining power of customers, bargaining power of supplier's threat of substitute products and the jockeying among the existing contestants. The collective strength of these forces determines the ultimate profit potential of an industry. And the strategist's goal is to find a position in the industry where his company can best define itself against these forces or can influence them in his company's favors strategy can be viewed as building defenses against the competitive forces."

These forces are affecting the environment of global business. In order to reduce the negative impact of environment on marketing efforts marketing strategy is formulated and implemented by every management. Due to this the marketing strategy is prepared for short term and it is changed as and when required according to the changes in the conditions in the market. The aim of marketing strategy is to make the marketing efforts of the enterprise more effective in the light of changes in business environment.

#### ❖ **Challenges or Problems across the Global Business:**

There are number of challenges are present across the global business during this pandemic situation. Many small and medium global businesses are collapsed specially Hotel businesses, Technology Companies- the key suppliers to technology companies across the globe to close or stop or restricting to their executives to travel the affected areas, Insurance Companies- travel restrictions, Sports and Entertainment- more people who work in this industry stay at home in self-isolation, Travel and Tourism Industries- people are avoiding travel to different countries and cities, Retail Businesses- people distance themselves from social gatherings and crowded spaces, Fintech businesses- people making safer and fewer investments in the market in this pandemic era.

There are number of following challenges faced by above and like that global businesses-

- 1) Competitor's Counter moves
- 2) Synergistic Potential
- 3) Substitutability
- 4) Internal and external Environment of Organization
- 5) Study of SWOT Analysis
- 6) Marketing Mix
- 7) Diversity in Productivity Levels of various Marketing Inputs
- 8) Target Market
- 9) Marketing Planning
- 10) Life cycle of Product

Marketing strategy of a common company very much depends upon the nature of the commodity, it means whether it is a consumer product or industrial product. Consumer product means product which is mainly used by the consumers for their satisfaction of their needs. On the other hand, industrial product is mainly used by manufacturers for further production.

In case of an Industrial product, the number of competitors is few because of large amount of investment. The number of customers is also few and therefore the demand of such product is low. It results in less expenditure on advertisement and sales promotion. On the contrary, in case of consumer product, the number of competitors and consumers are innumerable and scattered all over the country, the marketing strategy will be quite different from that of the industrial product. The company has to satisfy the needs of innumerable customers who differ from widely in nature. The price policies, advertisement policy, publicity for products, etc. are different on the nature of the product and differ from region to region.

From the above different kinds of challenges and nature of the product the businesses can implemented different kind of marketing strategies for the growth of their business.

#### ❖ **GLOBAL MARKETING STRATEGIES IMPLEMENTED IN POST PANDEMIC PERIOD:**

- 1) **Focus on existing Customers:** Now most of the Retailers doing focus on their existing customers. In sooner did the customers migrate into the online world, then retailers contact to their existing customers. In this pandemic situation Retailers give more attention to the need of the customers and how to satisfy and fulfill the demands of the customers. Retailers go for word-of-mouth marketing strategy with their customers. Word-of-mouth marketing is the passing of information from one person to another through oral

communication. Modern marketers have now started to create authentic word-of-mouth strategies for their products and services.

- 2) **Go for Online:** There are different kind of global businesses can take opportunity of doing online business in this pandemic situation. With the spread of Commerce to the Internet a new form of marketing has emerged. From simple online banners to pop-ups on the screen, online marketers have tried to capture the customer's attention in whichever way they can. Most of the online strategic marketing efforts today are a mixture of growth tactics and a variety of awareness tactics that drive attention. There are more options or popular websites doing their global businesses online- Amazon, Flipkart, Snapdeal, Myntra, Zomato, etc. They provide all kind of products to the customer's doorstep when customers ordered online. Today everywhere maintaining distancing for that purpose these online global businesses are very popular in the world.
- 3) **Investment in Social Media advertisements:** Social media like Whats app, Facebook, Twitter, Instagram, WeChat, Skype, Viber, Pinterest, LinkedIn, Telegram, etc. offer a unique opportunity for tech-savvy business that are willing to invest in customer engagement. Marketing through social media is still in its infancy stage but is growing at a great pace. These are some most powerful social medias for doing small businesses in this pandemic situation. It helps to advertise as well as provide the information of the different kinds of products to the direct customers.
- 4) **Move for Exclusive deals and offers:** At times not revealing everything becomes a great source of buzz, just like a movie trailer that gets us excited to go see the movie, a half advertisement creates curiosity- For example, Amazon Prime, Netflix, You Tube Premium, etc. These websites provide exclusive sales promotional e-activities or deals and offers to the customers. While not showing all the aspects of the advertisement, the advertiser can create a good amount of inquisitiveness to drive viewers to want to see more.
- 5) **Communication Strategy or Cross Media:** This kind of strategy provides information to customers through multiple channels like email, websites, print and online advertisement to cross promote the company's products and services. In this pandemic there are many global businesses doing their conferences and meeting on video conference, Zoom Platform, Google Meet, Duo, etc.
- 6) **Focus on popular paid advertising Channels:** In this pandemic situation most of the global businesses focus their business on some popular paid advertising channels- such are Google Ads, Bing Ads, Facebook Ads, Instagram Ads Twitter Ads, LinkedIn Ads, Pinterest Ads, Amazon Ads, etc. With the help of these advertising channels businesses can directly reach to the customers. They can advertise their products and services related information directly to the customers. Then customers find out products which they want from these channels.

#### ❖ CONCLUSION:

The Global Businesses find out the customer's priorities with the help of these marketing strategies and to fulfil and satisfy their needs. With the help of this businesses can find out their Strengths, Weaknesses, Opportunities and Threats from the environment. In this pandemic situation most of the businesses first very feared about surrounding environmental situation and they feel various threats are present in the global business. They find out different weaknesses of their business and find out who is the ideal buyer for our product? Then they implement above marketing strategies -Focus on existing Customers, Go for online Marketing Strategy, Investment in Social Media advertisements, Move for Exclusive deals and offers, Communication Strategy or Cross Media, Focus on popular paid advertising Channels, for their businesses. These strategies are making the strengths for the business and create different opportunities for their businesses.

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## INTERNATIONAL LABOUR STANDARDS

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## ABSTRACT

*International labour standards were developed to provide a global system of machinery on labour and social policy, along with a supervisory system i.e., the legal component, to address all types of problems arising at national level. These legal components of the ILO's strategy were for governing globalization, promoting sustainable development, eradicating poverty and ensuring that everyone can work in dignity and safety. ILO became the first specialized agency of the United Nations (UN) and represents the only institution created by the Treaty of Versailles to survive today, celebrated its centenary year in 2019. The importance of achieving social justice through which every working man and woman can claim freely and on the basis of equality of opportunity their fair share of the wealth that they have helped to generate, is ever more pressing, with the rise in inequality and exclusion, which is a threat to human progress. One of the most symbolic controversies relating to the future of work lies in the issue of whether technological progress will result in the destruction or creation of jobs. The current wave of technological change based on advancements in artificial intelligence (AI) has created widespread fear of job losses and further rises in inequality.*

*Keywords: Dignity, Social Justice, Artificial Intelligence, Inequality.*

## INTRODUCTION

**“All Labour that uplifts humanity has dignity and importance and should be undertaken by painstaking excellence”** by Martin Luther King Jr.

Work is part of everyone's daily life and is crucial to a person's dignity, well-being and development as a human being. Decent work brings together access to productive and suitably remunerated work, safety at the workplace and social protection for families, better prospects for personal development and social integration, freedom for individuals to set out their dreams, organise themselves and participate in decision making that affect their lives, and equality of opportunity and treatment for all men and women. International labour standards are there to ensure that it remains focused on improving the life and dignity of men and women. With climate change, technological development and globalization, we are witnessing a change in the work front. New technology has meant that persons, goods and capital are moving rapidly between countries, giving rise to global economic development. Globalization today means the internationalization of production, finance, trade, and also migration.

Despite benefits of globalisation, it has not resulted in prosperity for all. Some progress has been made in terms of development and the recognition of rights: the reduction of poverty, presence of women in the labour market, increase in social protection machinery, sustainable jobs in the private sector, etc. But today's globalized economy has also brought with it major social ups and downs, including high unemployment in certain parts of the world and financial instability. The distribution of wages at the individual level has also become more unequal. Early support for international labour standards first emerged in the 19th century. In 1946, the ILO is also the only UN agency in which non-government organizations play a large institutionalized role in formulating policy. The ILO operates by creating conventions that address a range of labour market policies through a process of stakeholder negotiations (in general, business, labour, and government). The ILO then attempts to persuade governments to ratify the conventions, with the understanding that ratification implies that domestic legislation will be adjusted, when necessary, to comply with the conventions. While the ILO has had a significant impact on improving labour standards around the world, its approach has limitations. In many cases, the capacity to enforce labour laws is lacking and widespread abuses are common.

**Indian Constitution and labour standards**

India is a party to Universal Declaration of Human Rights, a founder member of the International Labour Organization, which came into existence in 1919 and a member of the United Nations Organisation. After India became independent, it adopted a Constitution on the 26 April 1949. Indian Constitution is the supreme law of a nation. Besides providing basic principles for governance, it presents the aspirations of the weaker sections of the society, especially the working classes. The trinity of Indian Constitution, the Preamble, the Fundamental Rights and the Directive Principles of State Policy, embody the fundamental principles, which provide guide to all legislations, including the labour legislations. This constitutional trinity assures its citizens to provide

"Socialistic Pattern of Society" and create "Welfare State" and all legislations, especially the Labour legislations, are deeply influenced by them.

The preamble states to secure to all its citizens:

Justice, Social, Economic and Political

Liberty of thought, expression, belief, faith and worship

Equality of status and of opportunity

Fraternity, assuring the dignity of the individual and unity and integrity of nation.

These principles provide the bedrock for framing all labour and social legislation interpreting it in favour of working classes. These principles run through our labour legislations like invisible golden threads and provide them strength and stamina; whether it is protective legislations, social security legislations, welfare legislations or even industrial relations legislations.

The relevance of the dignity of human labour and the need for protecting and safeguarding the interest of labour as human beings has been enshrined in

Chapter-III Fundamental Rights (Articles 16, 19, 23 & 24) and

Chapter IV Directive Principles of State Policy (Articles 39, 41, 42, 43, 43A & 54).

Under the Constitution of India, Labour is a subject in the concurrent list where both the Central and State Governments are competent to enact legislations. As a result, a large number of labour laws have been enacted catering to different aspects of labour namely, occupational health, safety, employment, training of apprentices, fixation, review and revision of minimum wages, mode of payment of wages, payment of compensation to workmen who suffer injuries as a result of accidents or causing death or disablement, bonded labour, contract labour, women labour and child labour, resolution and adjudication of industrial disputes, provision of social security such as provident fund, employees' state insurance, gratuity, provision for payment of bonus, regulating the working conditions of certain specific categories of workmen such as plantation labour, beedi workers etc.

### Workers' Rights

**"Work is not man's punishment it is his reward, his strength and his pleasure"**-George Sand.

Everyone has the right to work. The right to work is a foundation for the realization of other human rights and for life with dignity. It includes the opportunity to earn a livelihood. States are obliged to ensure the availability of technical and vocational guidance, and take appropriate measures to develop an enabling environment for productive employment opportunities. States must ensure non-discrimination in relation to all aspects of work. Forced labour is prohibited under international law. Closely connected with the right to work are the right to just and favourable conditions of work, and trade union-related rights. States are obliged to ensure fair wages, equal pay for equal work, and equal remuneration for work of equal value. Workers should be guaranteed a minimum wage that allows for a decent living for themselves and their families. Working conditions must be safe, healthy, and not demeaning to human dignity. Employees must be provided with reasonable work hours, adequate rest and leisure time, as well as periodic, paid holidays.

Workers have the right to associate with one another and bargain collectively for improved working conditions and living standards. They have the right to form and join a trade union of their choice, and trade unions have the right to form national or international groupings. Workers have the right to strike, as long as it is in conformity with national laws. Collective worker rights cannot be subject to restrictions by States other than those prescribed by law and necessary in a democratic society in accordance with national security interests, public order, or for the protection of the rights and freedoms of others.

- **Availability.** States must ensure the existence of tailored services to help people to identify employment opportunities and find work.
- **Accessibility.** States must ensure work places are physically accessible, particularly for persons with physical disabilities. Everyone has the right to seek, obtain and impart information on employment opportunities.
- **Acceptability and quality.** The right to work comprises several interrelated components, including the right to choose and accept work freely, just and favourable conditions of work, safe working conditions, and the right to form trade unions.

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**Effects of Artificial Intelligence on Employment**

Herbert Simon, Nobel Prize winner in economics, expressed in 1956 what many observers were convinced of at the time: "Machines will be capable, within twenty years, of doing any work a man can do," and hence that new technologies would make many jobs obsolete beyond the traditional blue-collar work in the manufacturing establishments. Today, we have computers around us: at home, in the office, at the bank, when travelling or simply ordering food from restaurant. Rarely do we think of the jobs that might have been lost because of these computers and machines.

But the stage has reached to the extent that now one of the biggest concerns in our society is how Artificial Intelligence and new technologies will affect employment. In some sectors there has already been a transformation and some jobs are now being developed by machines instead of people.

This issue has been studied and discussed within International Labour Organisation (ILO) the United Nations Agency which is in charge of promoting decent work and setting International labour standards.

The current wave of technological change based on advancements in artificial intelligence (AI) has created widespread fear of job losses and further rises in inequality. Some scholars and experts predict that AI will create more jobs than it will destroy. But other scholars and experts don't agree with such position, they believe that inequality will increase due to artificial intelligence. Technology advantages will be enjoyed only by a small group of companies. Small companies will be affected negatively directly affecting the labour force by technology changes while the large companies will be benefitting from them. To reduce this inequality, effective policies have to be approved in order to acquire new skills, as there is an existing risk to the low skill and low paid jobs.

**Some measures for facing these challenges are:**

1. A revolution in education is required. Reinvent education and vocational training to find out what jobs can't be carried out throughout AI and in this way train employees to carry out jobs which cannot be substituted by AI which will contribute to job creation, quality job creation.
2. Installation of productive development policies which accelerates investment, productivity and adoption of technologies to boost job creation.
3. Adoption of Labour market policies in order to redesign the labour market institutions and regulations.
4. Awareness of adopting education and labour policies that address the difficulties of workers displaced by technology.
5. "Reinventing Jobs", taking advantage of the existing staff and investing in new capabilities.
6. Allowing humans to do more motivating tasks and leaving tedious tasks for robots.

Once humans are released from repetitive tasks, employees will be happier in their positions since they will feel more satisfied when they face greater challenges. Employment will be created but it must be configured.

**CONCLUSION**

It is noteworthy that to safeguard the basic rights workers' all over the world had to struggle continuously and thus bring about a new turn to judicial thinking. Today, the rights of labour are set forth in the positive laws of almost in every nation, yet much is still to be done so that in practice, all workers can enjoy the fruits of their labour and live a decent and dignified life in civilised Society. As we have seen, the Constitution of India has gone out of way to protect rights and privileges of workers, ensuring a decent and dignified life. But a lot is required to be done for the workers of unorganised sector - bonded labour, child labour, female labour, and agricultural labour. Therefore, even after five decades of independence and many labour legislations, labourers are exploited. Much is required to be done.

Different studies predict that millions of jobs could be partially or fully automated and replaced within a few decades due to robots and artificial intelligence's progresses. The ILO, as a guarantor of labour protection at a global level, is aware of the impact that new technologies is having in labour relations and indeed, the ILO promoted at a global level and in order to cope with the challenges for the future of labour relations. It's likely that technological changes will lead up to an accelerating job destruction. To create new jobs in this context, new markets need to be regulated in order to guarantee workers' rights. However, this process must be quick to avoid jobs being lost due to the substitution of artificial intelligence systems.

In conclusion, the result of technological changes and its impact on employment depend on how adjustment process are managed. ILO gives a positivistic perspective in this way, encouraging countries to establish appropriate policies in order to take advantage of technological advances

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**ANNEXURE****Classification of LABOUR LAWS in India**

I. Laws related to Industrial Relations such as:

1. Trade Unions Act, 1926
2. Industrial Employment Standing Order Act, 1946.
3. Industrial Disputes Act, 1947.

II. Laws related to Wages such as:

4. Payment of Wages Act, 1936
5. Minimum Wages Act, 1948
6. Payment of Bonus Act, 1965.
7. Working Journalists (Fixation of Rates of Wages Act, 1958

III. Laws related to Working Hours, Conditions of Service and Employment such as:

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8. Factories Act, 1948.
  9. Plantation Labour Act, 1951.
  10. Mines Act, 1952.
  11. Working Journalists and other Newspaper Employees' (Conditions of Service and Misc. Provisions) Act, 1955.
  12. Merchant Shipping Act, 1958.
  13. Motor Transport Workers Act, 1961.
  14. Beedi & Cigar Workers (Conditions of Employment) Act, 1966.
  15. Contract Labour (Regulation & Abolition) Act, 1970.
  16. Sales Promotion Employees Act, 1976.
  17. Inter-State Migrant Workmen (Regulation of Employment and Conditions of Service) Act, 1979.
  18. Dock Workers (Safety, Health & Welfare) Act, 1986.
  19. Building & Other Construction Workers (Regulation of Employment & Conditions of Service) Act, 1996.
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  21. Cine-Workers and Cinema Theatre Workers (Regulation of Employment) Act, 1981
  22. Dangerous Machines (Regulation) Act, 1983
  23. Dock Workers (Regulation of Employment) Act, 1948
  24. Dock Workers (Regulation of Employment) (Inapplicability to Major Ports) Act, 1997
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  31. Equal Remuneration Act, 1976.
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**A STUDY ON ANALYSIS OF BONUS SHARE ISSUED AND ITS IMPACT ON SHARE PRICE WITH REFERENCE TO NSE LISTED STOCK IN INDIA**

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**ABSTRACT**

*The Company issues bonus shares to increase the issued share capital of the company to their current shareholders after when the company has made profit or from the place of dividend. Issuing bonus shares increases the total number of shares but value of investment has remain same hence, earning per share (EPS) also fall down but the same time its increases participation of traders because by issuing bonus shares, the total number of outstanding shares increase and its helps to increase the trading and liquidity of the stock. the company declare bonus issue as a method of infusing additional liquidity into shares, which is decreases the price of shares which is attract more retail investors. To knowing the issue of bonus shares and to aware the traders the researcher has studied the impact of bonus shares issued and its effect on the market of 10 biggest NSE listed companies in India.*

*Keywords: Earning Per Share, National Stock Exchange (NSE)*

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**1. INTRODUCTION**

Bonus Shares are additional shares given by a company to its current shareholders at free of cost. Bonus shares normally calculated on the value of shares which is already shareholders hold, where number of shares will be increased but value of investment will remain same. Bonus shares are issued in the form like 1:2, it means 1 extra share for 2 holding shares. A bonus issue does not reduce risk of investment. It is directly affects the earning per share (Earning per Share = Net Profit/ Number of Shares) whereas piece will drop in proportion to the fresh issue. Bonus shares are issued by conversion of the reserve and surplus of the company.

**1.1 Circumstances for issuing Bonus Shares:**

- \* If a Company is running low on cash it might issue bonus share instead of dividend.
- \* Company issues bonus shares for capitalize on retained earnings and restructure company reserves.
- \* Company issues bonus shares to give rewards to their investors, the moral of the shareholders gets boosted and the company earns the confidence of the investors for long term purpose.
- \* Company issues bonus share to increasing the liquidity of stock and to increasing participation of the traders.
- \* Company issues bonus shares than its share price change after the record date, i.e. stock price falls down and trades in a bit affordable in price range to the new investors.

**1.2 Condition should be satisfied Before Issuing Bonus Shares:**

- \* A Company can only issue bonus share if the Articles of Association authorize. When it is not present in the articles a special resolution should be passed at the general meeting of the company.
- \* The Shareholders should approve in general meeting on the suggestion of board of directors of the company.

**1.3 Effect of Bonus Share on Investors:**

- \* It increase your holding, total value remain the same.
- \* Bonus share increases the holding of shareholders, when the company will give dividend the consideration would be done on the number of share that shareholders hold, including the bonus shares dividend would be additional profit.

**1.4 Tax Impact on Bonus Shares:**

There is no tax charge when bonus shares are issued, but at the time of sale, bonus shares are taxable (STCG-15%, LTCG- Nil up to 1 lakh and beyond one lakh 20%). The tax payer considers the cost of bonus shares nil.

**1.5 SEBI Guideline:**

1. No Bonus shares shall dilute other issues
2. Bonus issue from free reserves
3. Issue in the place of dividend
4. Partly paid shares not eligible
5. Implement the proposal within 6 months from the date of approval
6. Bonus proposal cannot be withdrawn
7. Provision in the articles

## 2. REVIEW OF LITRATURE

**Abhay Raja (2012)**, Examined, issuing bonus shares is giving positive impact to the company but it's not make any benefits to the company's current shareholders but in future they will get more returns from the company due to increased capital base.

**Sloan (1987)**, explained, stock split and dividend on ex date in Australia. He has examined the behavior of stock plus he has taken 89 companies for the further observation from the data of 11 years. He has further studied shareholders gets positive return before 5 day of Ex Date.

**Rajesh Khurana, Dr. D.P. Warne (2016)**, examined the reaction of bonus issue on stock price by using daily adjusted prices for sample stock for 115 days prior and 15 days after the event date. He has taken 34 NSE Listed companies from 11 sectors during the period from 2006 to 2012. He has further explained to determination of abnormal return and he has concluded with the help of t-test and z-test for the Average Abnormal returns that there are significant positive excess returns before run up to the bonus announcement date on the day t3-t12 whereas, on the day t1, t0, t2 AAR are the insignificant negative returns can be observed.

## 3. OBJECTIVES OF THE STUDY

1. To know the impact of bonus shares issued and its effect on the market.
2. To study the details of issue of bonus share like, issuing date, Ratio of issue of sampled companies.

## 4. RESEARCH METHODOLOGY OF STUDY

**4.1 Sampling Design:** For the research purpose the Random sampling method has been used where study has taken 10 companies representing various industries which are listed in NSE. Theses 10 companies had declared issue of bonus shares in their respective board meeting.

**4.2 Data Collection:** The study has taken only secondary data for the analysis, which is collected from the various web sources and Journals.

**4.3 Scope of the Study:** The study will helps to provide batter analyses of issue of bonus shares before issue price and after issue price which is helps to traders in investment in stock.

**4.4 Limitation of the Study:** The study has taken only 10 companies, so main limitation is time.

## 5. DATA ANALYSIS AND INTERPRETATION

The analysis and interpretation of the data has been done with the help of Excel.

**Table No. 1: Companies bonus issue date, Ratio and Price before and after one day.**

Sr. No	Company Name	Bonus Issue Date	Ratio	Price one day Before	Price One Day After
1	Larsen & Toubro Ltd	13-Jul-17	1:02	1159.76	1171.2
2	ONGC	27-Oct-16	1:02	193.41	191.28
3	Kotak Mahindra	8-Jul-15	1:01	712.8	705.2
4	TCS	31-May-18	1:01	1757.05	1732.45
5	Cipla Ltd	24-Apr-06	3:02	263.8	248.05
6	Wipro Ltd	6-Mar-19	1:03	272.7	268.85
7	GAIL India	9-Jul-19	1:01	151.05	144.95
8	NTPC	19-Mar-19	1:05	132.25	129.3
9	Britannia	22-Aug-19	1:01	2384.5	2466.65
10	Mahindra Holiday	10-Jul-17	1:02	435.12	425.35

Sources- [www.moneycontrol.com](http://www.moneycontrol.com)

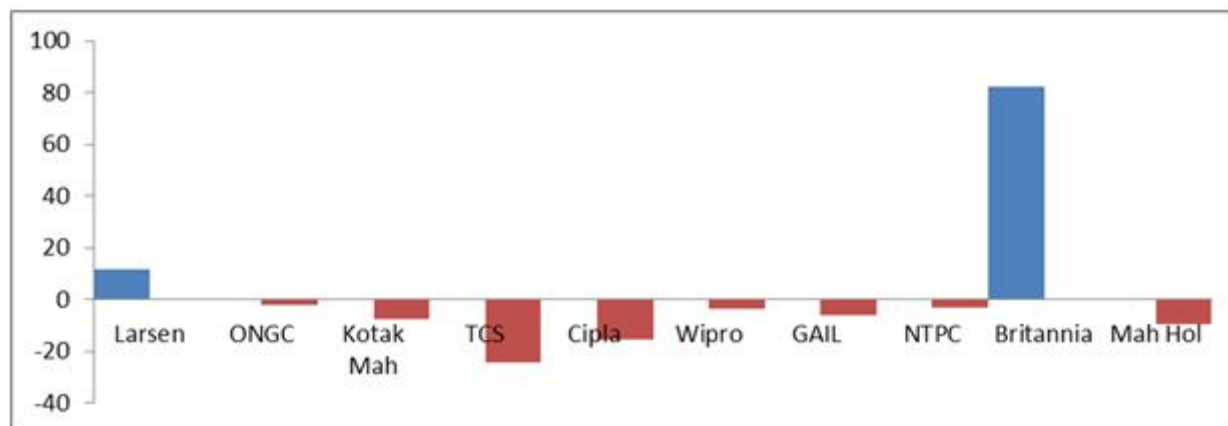
**Table No 2: Showing the companies Positive and Negative Effect**

Sr. No	Company Name	Price one day Before	Price One Day After	Positive Difference	Negative Difference
1	Larsen & Toubro Ltd	1159.76	1171.2	11.44	
2	ONGC	193.41	191.28		-2.13
3	Kotak Mahindra	712.8	705.2		-7.6
4	TCS	1757.05	1732.45		-24.6
5	Cipla Ltd	263.8	248.05		-15.75
6	Wipro Ltd	272.7	268.85		-3.85
7	GAIL India	151.05	144.95		-6.1

8	NTPC	132.25	129.3		-2.95
9	Britannia	2384.5	2466.65	82.15	
10	Mahindra Holiday	435.12	425.35		-9.77

Sources- [www.moneycontrol.com](http://www.moneycontrol.com)

**Graph No 1: Showing the companies Positive and Negative Effect**



Sources- [www.moneycontrol.com](http://www.moneycontrol.com)

**Data Interpretation:** Above table 1 has show the various dates on which the bonus share issue was announced by the board of directors meeting. 1 day before and 1 day after bonus share price. Table and graph no. 2 shows that the bonus issue announcement has decreased the price after one day. Only 2 companies have shown a positive increase after one day.

#### FINDING:

- 1) The research finding stated that there is no huge change in price before issue and after issue.
- 2) The researcher also found that the bonus issue announcement had made the market mostly negative effect which is turn made the investors to be cautious before investing in it.
- 3) Through the research finding it can be observed that only bigger price company has positive effect.

#### 6. CONCLUSION

The research study concluded that Bonus issue is the good for the company because through the bonus issue due to EPS decreasing stock will more liquid now and there will so many more shares available in the market, it would be easier to buy and sell. Researcher has further concluded that after issue of bonus share market would be more positively but after the study it can be also concluded that there is no huge change in market price.

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## USE OF CLOUD COMPUTING TECHNOLOGY IN LIBRARY SERVICES: AN OVERVIEW

Mr. Sunil T. Ubale<sup>1</sup> and Mr. Snehal S. Sambhar<sup>2</sup><sup>1</sup>Librarian<sup>2</sup>Assistant Librarian**ABSTRACT**

*This article presents an overview of cloud computing. Cloud computing technology played important role for libraries and is offering various opportunities and services for libraries to connect their services with clouds. These days most of the Libraries are moving towards cloud computing technology and made changed in its functioning processing of the information retrieval system. In this paper author try to highlights the fundamentals, types, and variations of cloud computing. Apart from the basicknowledge about cloud computing, this paper also deals with cloud computing application for libraries and role of cloud librarian along with its advantages and disadvantages.*

*Keywords: Cloud Computing, SaaS, PaaS, IaaS, Models and Variations of cloud computing, Applications of cloud computing, Cloud Librarian.*

**1. INTRODUCTION**

In the last few years many changes have taken place in libraries, one out of this is the adoption of new technologies such as cloud computing. Following the personal computer and the internet, cloud computing also known as the third revolution and it is new terms of technology. The cloud computing provides people, the way to share distributed resources and services that belong to the library. Cloud computing system enables the library to provide services to a larger amount of users. Cloud computing service is the practice of storing regularly used computer data on servers that can be accessed through the internet. As a matter of fact, Library professionals are being offered opportunities of taking advantage of Information and Communication Technology facilities to advance in their efforts to making library clientele connected to information resources in the cloud, by utilizing computer and its associative gadgets.(Aiyebelehin, Makinde, Odiachi, & Mbakwe, 2020)

**2. WHAT IS CLOUD COMPUTING**

The word cloud refers to a network present at remote area. Cloud can provide services on public or private networks i.e. wide area network, local area network. Basically cloud computing means storing and accessing data and programs over the internet as a replacement of your computer's hard drive and it works on a principle of sharing of resources and infrastructure for effective and efficient service delivery. (Irenoa, Tijani, & Bakare, 2018)

According to The NIST (National Institute of Standard and Technology) "Cloud computing is a model for enabling ubiquitous, convenient, on-demand network access to a shared pool of configurable computing resources (e.g., networks, servers, storage, applications, and services) that can be rapidly provisioned and released with minimal management effort or service provider interaction."

Gartner define Cloud Computing as "A style of computing where massively scalable IT- related capabilities are provided 'as a service' using internet technologies to multiple external customers"(Fakir, Bhakar, & Waghchoure, 2020)

Several definitions of cloud computing have been postulated by various scholars but they all normally said, cloud computing techniques that facilitate the access and utilization of technological infrastructures remotely through the internet without having to purchase and maintain them.

**3. FUNDAMENTAL ASPECTS OF CLOUD COMPUTING**

- **On-demand Self Service:** this means that users can provision computer resources without the prerequisite of collaboration with the provider of cloud services. According to Gartner Amazon Web Services (AWS), Microsoft, Google, IBM and Salesforce.com are the Cloud service providers that provide on demand self-services.
- **Broad Network Accessibility:** this facilitates cloud services to be presented through network and accessed using the standards that support utilization by diverse gadgets, for instance laptops and Smartphone. These devices can be used from any location.

- **Resource Pooling:** it is the third one and involves bringing together computing resources of a supplier to attend to multiple clients through multiple-tenant model. Computing resources consist of storage, virtual machines, network bandwidth and email services. Resource pooling helps a user to use the resources from anywhere at any time.
- **Rapid Elasticity:** This means that cloud services are quickly provisioned to rapidly scale out or in at any time and quantity. Elasticity is the best option in cloud computing.
- **Measured Service:** Consumption of cloud resources is measurable and can be reported thus ensuring openness between the provider of the service and user. (Bhardwaj, 2018)

#### 4. TYPES OF CLOUD COMPUTING MODELS

**Private Cloud:** Private cloud is usually infra and services to be accessible within an institution only. Such services may be managed by the institution itself to support various user groups, or third party. (Chudasma, Bhatt, & Trivedi, 2019) This cloud offers more security as it is implemented within the internal firewall. It is more secure than the public cloud. VMware vCloud and Citrix VDI are examples of private cloud solutions

**Community Cloud:** This cloud system and service allows access by a group of institutions. The third party or member organization may be responsible for managing the cloud. It shares the infrastructure between many organizations. The computing infrastructures are appropriated amongst establishment with similar goals such as academic libraries in a given geographical area. (Chudasma, Bhatt, & Trivedi, 2019)

**Public Cloud:** It allows systems and services to be simply reachable to the common public. The whole cloud computing infra is fully controlled by the third party providers. E.g. Amazon, Google, Microsoft offers cloud services via Internet.

**Hybrid Cloud:** This cloud is a mixture of public and private model. In a hybrid cloud, an organization uses interconnected private and public cloud infrastructure. Many organizations use this model when they need to rapidly expand their IT infrastructure, such as leveraging public cloud to complement the capabilities available in a private cloud.

#### 5. CLOUD COMPUTING VARIATIONS

There are three core cloud computing variations have been identified in various studies

- **Software as a Service (SAAS)** which refers to an application embedded on the cloud and is accessed by the help of a web browser. They comprise of Google G Suite Apps, EZproxy, Facebook, Zotero, YouTube and Mendely. (Kirsch & Hurwitz, 2020)
- **Platform as a Service (PAAS)** Presents tools and an atmosphere for a library develop, try, install and use personalized cloud application. In PaaS model, the software already exists, like when a library is using a library Integrated System like Koha and other web based software.
- **Infrastructure as a Services (IAAS)** consist of numerous servers which store the computing infrastructures with an “on-demand and pay for every use” formulation. (Azam, 2019) Cloud storage services consist of Amazon S3 and Microsoft Azure (Simple Storage Service). Other examples of IaaS are Google Drive and Dropbox.

#### 6. APPLICATIONS OF CLOUD COMPUTING IN LIBRARIES

Libraries are shifting their services with the attachment of cloud and networking with the facilities to access these services anytime, anywhere. Information technology plays an important role in handling library resources limits from collections, storage, organization, processing and analysis of information dissemination. With the advent of information technology, libraries have become automated which is the need towards advancement followed by networks and more effort are towards virtual libraries. Today the concepts of traditional libraries have been changed with the introduction of new and innovative technologies like cloud computing helps libraries to provide better services to the user community. Some of the cloud computing initiatives for libraries are OCLC Webscale, Ex-Libris Cloud, Duraspace Cloud, OSS (Open Source Software) Labs. (Bhardwaj, 2018)

**Library automation and house-keeping:** Cloud computing services also support library automation and house-keeping activities. For example: Polaris provides variant cloud based services such as acquisitions, cataloguing, process system, digital contents and provision for inclusion of cutting edge technologies used in libraries and also supports various standards such as MARC21, XML, Z39.50, Unicode and so on. Now-a-days many of the software vendors such as Ex-Libris, OSS Labs are also offering this service on the cloud and third party services offering hosting of this service on the cloud to save libraries from investing in hardware for this

purpose. It is a cost-benefit approach to make the libraries to be free from taking maintenance, namely, software updates, backup and so on. (Swapna & Biradar, 2017)

**Digital Library and Repository:** In this age of digital era each library needs to be efficiently access their information, services and resources to certain network access. (Fakir, Bhakar, & Waghchoure, 2020) digital library services are presently being offered by libraries mostly using open source software such as DSpace, EPrints, Fedora etc. (Bansode & Pujar, 2012) DuraSpace has software's called Dspace, Fedora and VIVO, but Dspace is widely used to frame repositories and digital libraries associated with Fedora. Dura Cloud supplies the entire solution for developing a repositories and digital library with standard interfaces and open source code for both software. (Fakir, Bhakar, & Waghchoure, 2020)

**Storage of Data:** Libraries require space to store the electronic files and documents. The documents could be official correspondence, full text documents, bibliographic records, tutorials, etc. At present, these are stored and accessed using personal desktops or from servers which are locally hosted. Cloud computing has brought in an excess of new services, which offer space at no cost to store the files and documents. For example, Flickr, Dropbox, Jungle Disk, Google Drive, SkyDrive and so on. These services virtually share the files on the web and provide access to anywhere and anytime without any special software and hardware. Libraries may take advantage of this and store some of their documents in order to undertake collaborative activities with other libraries. (Swapna & Biradar, 2017)

**Searching Scholarly Content:** Cloud computing facilitates to discover and share the scholarly content. It acts as a collaborative platform to empower libraries for dynamic searching and also for single point search interface, maximizes the usage of all e-resources, customized search across selected sources reduces noise and highlights relevant content and tools to support the complete research lifecycle. For example: Knimbus is a cloud based research platform. It is a Knowledge Cloud which is dedicated to knowledge discovery and collaborative space for researchers and scholars. It is a collaborative platform for researchers to discover and share knowledge with peers and facilitates to find and access millions of journal articles, patents and e-books, for the users tagging, sharing and discussing these contents with their peers. (Swapna & Biradar, 2017)

**Browsing Library Data:** Cloud computing technology also facilitates libraries for browsing and sharing its data for years together. For example, OCLC World Cat service is one of the popular services for searching library data using cloud computing technology. OCLC is offering various library activities pertaining to circulation, cataloguing, acquisition and other library related services on cloud platforms through the web share management system. (Gandotra, Tyagi, & Tiwari, 2019)

**Library Website hosting:** Libraries can host their own website with the help of cloud technologies. Website hosting is one of the initial embracing of cloud computers because several organizations, including libraries prefer to host websites with third-party service providers rather than hosting and maintaining their own servers. This is due to either organisation's not having the required bandwidth of Internet (with uniform IPs) or technical manpower to maintain the servers. Google Sites serves as an example of a service for hosting websites outside of the library's servers and allowing for multiple editors to access the site from varied locations. (Bansode & Pujar, 2012)

**Building Communities:** Cloud computing technology offers great opportunities for libraries to build networks among the libraries and information science professionals as well as other interested people including information seekers by using social networking tools; the most famous social networking services are Facebook, Instagram, WhatsApp, Twitter and Blogs which play a key role in building community power. This cooperative effort of libraries will create time saving efficiencies and wider recognition, cooperative intelligence for better decision-making and provides the platform for innovation and sharing of intellectual conversations, ideas and knowledge. (Gandotra, Tyagi, & Tiwari, 2019)

## 7 ROLE OF CLOUD LIBRARIAN

- To track member information and transactions.
- To provide Access Pin to students and define validity. (Pin can be auto generated; Validity can be set in the software).
- To communicate with the member libraries contributing their resources to cloud for resource sharing.
- To communicate with e-books, journals publishers & distributors, consortia, database providers.
- To discuss with faculty members and subject experts, librarians for preparing different packages for different faculties and classes.

- To update technological skills and give technological support to member libraries.
- To conduct training and awareness programs for readers.
- To provide interlibrary loan facility.
- To track usage record of cloud resources.
- To develop digital collection and keep record of physical resources too for providing referral service.
- To maintain own virtual profile by creating his or her blog or social network profile to interact with the user. The same platform can be used for providing reference services and educating the users in cloud resources or how to use the cloud infrastructure.
- To use his or her strategic planning and decision making ability at different stages of developing a cloud library. (Hasan, 2021)

## 8. ADVANTAGES OF CLOUD COMPUTING

Like any other technology, cloud computing too has its advantages and disadvantages

**Resource sharing:** One of the important components of cloud computing is that one can share the resources. It allows people within and outside the organisations to have access to the resources. A group of libraries can come together and can put their resources at one place, which will facilitate them to provide access to more resources to their users. (Bansode & Pujar, 2012)

**Cost-saving:** Cloud computing helps you to save substantial capital cost as it does not need any physical hardware investments. Also, you do not need trained personnel to maintain the hardware. The buying and managing of equipment is done by the cloud service provider. (<https://www.guru99.com/>, 2021)

**Increased storage:** Due to the vast infrastructure offered by cloud providers in recent times, storage and maintenance of large volumes of data has become a more accurate and achievable goal for organizations in need of large storage. With cloud options, libraries can offer more services and resources without the limitation of physical storage. (Irenoa, Tijani, & Bakare, 2018)

**Pay-as-you-use:** In cloud computing, organisations such as libraries are only paying for the resources only for that service or the space they have used or worked on. The service is economically feasible and most of the time some space is allotted free, and there are no hidden or extra charges which have to be paid. (Kumar & Kaur, 2020)

**Flexibility:** Cloud computing offers much more flexibility than other local network computing systems and saves time plus cost for organisations. It is possible for organizations like libraries to expand the services anytime by requesting for an additional space on the servers. (Bansode & Pujar, 2012) Cloud Computing works on demand. We can demand the service for certain periods like for a few days or few weeks or months. (Bhardwaj, 2018)

**Automatic Updates:** The IT or library staff need not have to worry about keeping the software up-to-date. The cloud service provider takes care of updating software as and when new version is released. When the server is updated everyone using the service also get access to the new version without updating anything on their end. Relieves the burden of IT staff with organization as routine jobs being handled by service providers. (Bhardwaj, 2018)

**Portability:** The staff and the users of the library can connect to the library servers from any place or from wherever they are, rather than having to remain present at their desks by having a PC and Internet access. (Bansode & Pujar, 2012)

## 9. DISADVANTAGES OF CLOUD COMPUTING

**Privacy and Security of Data Issues:** The biggest concerns about cloud computing are security and privacy, if the proper security model is not yet in place, then the data stored on the cloud is vulnerable to attacks from viruses, theft, etc. Since the services are offered over the Internet it is very difficult to assess the physical location of servers and software and security audit is hard to undertake. Also, there is a risk of data loss due to improper backup and systems failure. (Bansode & Pujar, 2012)

**Depend on constant internet connectivity:** The internet is the only way to cloud computing. When there is no internet connection in your place, or the internet path to the cloud provider is in trouble, automatically access to your cloud computing machine will be disconnected. Now this is where the biggest obstacle is happening in

developing countries and remote areas that do not have good internet access. And the weakness of public cloud is where everyone accesses the same server and server and will increase the risk of attack, and down the server. (Lavinski, 2019)

**Latency:** Latency and obvious issue is the time taken for the user system to interact with machine in the cloud. Cloud based apps will have higher latency than the native apps installed on a user system. There will be an added time of user extreme communication with the cloud. (Bhardwaj, 2018)

**Technical problem:** Besides that, the use of Cloud Computing makes you unable to manage it yourself when there is a problem or a problem occurs, you must contact customer support who is not necessarily ready 24/7. This is a problem because for some support you also have to pay more money. (Lavinski, 2019)

**Dependence on outside agencies:** Cloud services are offered by third party services over the Internet, it is virtually difficult to have any control on the maintenance levels and the frequency. Also it is difficult evaluate the contingency measures of the service provider in regard to backup, updates, restore and disaster recovery. Migration to other service providers is also an issue, if the uniform standards are not followed by the host. (Bansode & Pujar, 2012)

**Knowledge and integration:** Deeper knowledge of cloud computing is essential as working of the service is totally dependent on the service provider. Similarly, integration is an issue as it will be difficult to integrate equipment used in data centers to host data with that of peripheral equipment in the organisation such as printers, USB drives, etc. (Bansode & Pujar, 2012)

## 10. CONCLUSION

Despite all the Cloud Computing advantages and disadvantages, we can't deny the fact that Cloud Computing is the fastest growing part of network-based computing. It offers a great advantage to customers of all sizes: simple users, developers, enterprises and all types of organizations. This technology provides libraries an opportunity to improve their services and relevance in today's information society. It helps libraries to deliver its resources, services and expertise at the point of need, within user workflows and in a manner that users want and understand. It should free libraries from managing technology so they can focus on collection building, improved services and innovation. The cloud computing model will encourage libraries and their users to participate in a network and community of libraries by enabling them to reuse information and socialize around information.

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EFFECTS OF COVID-19 ON HEALTH INSURANCE POLICY

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**1. ABSTRACT**

*This study investigated the Effects of Covid-19 on Health insurance policies by studying the impact of covid-19 on health insurance premium, by studying the impact of covid-19 on settlement of health insurance claim and studying the increase in medical inflation due to covid-19. The study used quantitative interviews to estimate the impact of the pandemic. Presently, the trend is an economic recession with decreasing profits but increasing insurance claims. India is between the top worst-hit countries by covid-19, which has impacted almost all industries and sectors across the world, including the insurance industry. The corona pandemic has pushed business across sectors to change the way they operate and the health insurance industry is no exception. From sold new policies to the customer to settling claims, the extended lockdown in the wake of covid-19 has pushed insurance companies to depend heavily on their digital architecture. While the pandemic persists, insurers should adapt to working from remote locations, train and equip staff to work under social distancing regulations, enhance cyber security protocols and simplify claims/premium processing using e-payment channels. A lot of insurance providers are making customized plans to ensure coverage affected. This research study is an attempt to study the impact of covid-19 on Indian medical insurance policies*

*Keywords: Coronavirus; COVID-19; mediclaim policy, medical inflation; claims; pandemic; lockdown*

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**1. RATIONAL AND GAP ANALYSIS:****1.1 Introduction:**

During the year 2019-20, General and Health Insurance companies collected Rs. 50,758 crore as **Health Insurance premium** (excluding Personal Accident and Travel Insurance premium) registering a **growth of 13 per cent over the previous year**. The four public sector general insurers continued to hold a larger market share with 49 per cent during the year 2019-20. However, there was a reduction in the market share of public sector insurers from 52 per cent in 2018-19. On the other hand, **the share of stand-alone health insurers has increased from 24 per cent in the year 2018-19 to 27 per cent in the year 2019-20** and the share of private sector general insurers in health insurance premium has remained at 24 per cent in 2018-19 and 2019-20. **The Premium from health insurance business has more than doubled during the last five-year period**. During 2019-20, the General and Health insurance companies have covered 49.87 crore lives under 1.79 crore health insurance policies (excl. policies issued under PA and Travel Insurance). **The state of Maharashtra alone contributed Rs. 14,781 crore (29 per cent) of total health insurance premium**. During the year 2019-20, Life insurers have procured a total premium of Rs. 884 crore from various health insurance products. The **net incurred claims** of the health insurance business of general and health insurers stood at Rs. **34,058 crore in 2019-20** as against Rs. 30,027 crore in 2018-19. The incurred claims exhibited an **increase of 13.42 % during 2019-20**. During 2019-20, the General and Health insurers have settled 1.67 crore health insurance claims and paid Rs. 40,026 crore towards settlement of health insurance claims. Covid claims cross Rs. 9,000 Crore. The bulk of these claim Rs. 7,136 crore have been paid by non-life insurers, largely under health insurance policies. The life insurance industry has paid Rs. 1,242 crore in death claims due to Covid, which has taken a toll on 1.5 lakh, lives in the country.

Historically, zoonosis (i.e., the transmission of diseases from animals to humans) has been identified as the major cause of global pandemics. Antonine plague, believed to be Smallpox, is the earliest record of a global pandemic that occurred between 165–180 AD, killing 5 million people, and causing USA \$11–25 million financial loss. The Black Death (1347–1351) caused by Yersinia pastes, bacteria found in rats, was a devastating pandemic that killed 200 million people all over the world and caused USA \$70–120 million financial loss. The Spanish flu occurred from 1918 to 1919 and was caused by an H1N1 virus that lives in pigs. The flu killed between 40–50 million people and caused an economic loss of USA \$70–90 million. HIV AIDS has been in existence since 1981 until now. It is caused by the Human Immunodeficiency Virus that lives on chimpanzees. AIDS has killed between 25–35 million people so far and caused USA \$100–200 million in financial loss to the world. More recently, the swine flu started in 2009 to 2010, caused by an H1N1 virus in pigs and has killed 200,000 people as well as caused USA \$10–20 million global financial loss. SARS-COV started in 2002 and ended in 2003. It is caused by a coronavirus in bats and civet cats and has killed 770 people while causing USA \$1–3 million financial loss to the global economy. Ebola occurred in the West African sub-region from 2014 to 2016. It is caused by the Ebola virus in wild animals and has killed 11,000 people while causing USA \$16–30

million financial loss to the global economy. Five years ago, MERS started and is still present. It is caused by a coronavirus from bats and camels and killed 850 people so far. Its total economic loss is USA \$2–9 million and still counting. The origin of the novel COVID-19 at present is still unknown, and its total economic loss is still counting. As on 02/04/2019 around the world corona virus infected cases were 129M killing 2.83M. India has 12.2M active corona virus cases and 163K people have died (Source: JHU CSSE COVID-19 Data).

While there is limited literature on the impact of pandemics on the health insurance industry, a parallel comparison can be made to the impact of other natural disasters on the global financial system.

**Dimitri** studied how available economic resources could be shared by health authorities to stop the spread of epidemic diseases. His analysis suggests that to be able to effectively distribute economic resources optimally depends on the cost functions namely: the available technology for controlling the relevant factors underlying the epidemic and the available financial resources.

**Lagoarde-Segot and Leoni** used a theoretical model to study the stability of the banking sector in the joint occurrence of Malaria and AIDS. Their studies suggest that the likelihood of collapse of the banking sector increases as the pervasiveness of pandemics increases.

**Sigala** revised literature to comprehend the effects of COVID-19 on the tourism industry. She studied that COVID-19 has different impacts on the tourism industry, which are based on the characteristic nature of the particular tourism sector, its dimension, location, management and ownership style. She further noted that the highly mixed nature of tourism demand also determines COVID-19 impacts and implications. Their study concluded that COVID-19 tourism research should not only discuss the different impacts of COVID-19 on tourism but also provide an explanation of the roots of such variances and the scope to test any suggestions on how to address possible dissimilarities that may arise from impacts of COVID-19.

**Dreyer et al.** Studied the frequency of influenza (flu) pandemics on the South African insurance industry and studied the effects it had on the industry. Their study concluded that a mild pandemic will cost the South African Economy Rs. 1.1 billion claims excluding annuity, while a severe pandemic could cost Rs. 55 billion claims.

**Goel (2014)**, had described that health insurance companies should come out with clear cut policy details. In their research, Researcher has studied consumer behavior of residents of Rohtak (Haryana –one of the richest belts of north India) towards health insurance.

**Sonal Kala and Dr. Premila Jain (2015)**, this study concentrated upon the awareness of health insurance among lay in Rajasthan Area (India). This study also provides ideas for health insurance companies to deal with their limitations and to grab the opportunities more in the market.

**M. Vinoth (2019)**, reveled study in connection with the Health insurance schemes of selected companies in India in order to analyze the place of the individual company to be computed and also to examine the company's claims, settlements and premium.

## 2. OBJECTIVES:

1. To study the impact of Covid-19 on Health insurance Premium.
2. To study the impact of Covid-19 on Settlement of Health insurance Claim
3. To study the increase in medical inflation due to Covid-19.
3. Research Design and Methods/ Research Methodology:

## 3. METHODOLOGY

### 3.1 Statement of problem:

- S1) Is there impact of Covid-19 on health insurance in India?
- S2) what are the factors affecting health insurance post Covid-19?

### 3.3 Research Design:

Type of research: Quantitative research

This study is a quantitative research study because it attempts to measure the level of awareness about health insurance in India. The collected data is quantified by coding the responses to arrive at a predictable conclusion. The questionnaire has a structured format.

**Descriptive research aims to accurately and systematically describe a population, situation or phenomenon. A Descriptive research design can use a wide variety of research methods to investigate one or more variables.**

The type of research design which best describes this study is the Descriptive research design. This can be concluded based on the facts that in this study, the problem is clearly defined. The information needed is clearly defined through a structured questionnaire. Statistical tools will also be used to examine the data.

### 3.4 Population/Universe:

Population states to any group of people or objects that form the subject of study in a particular survey. In this study the population of India, i.e. the population of India between the age group of 18 - 75.

### 3.5 Sampling technique:

Initially, a rough draft will be ready keeping in mind the objective of the research. A pilot study will be undertaken in order to know the accuracy of the questionnaire. The final questionnaire will be arrived at only after certain important changes are combined. Convenience sampling technique will be used for collecting the data from different insurers. The insurer is selected by the convenience sampling method.

### 3.6 Sampling unit:

The respondents who will be asked to fill out the questionnaires are the sampling units. These comprise of employees, students, business owner, professionals and also others prominently.

### 3.7 Sampling size:

The sample size will be restricted to only 200, which comprised of mainly people from different regions of India due to time constraints.

### Sampling area:

The area of the research is all over Maharashtra.

Age group: 18 to 75 years

### 3.8 Data

#### Type of data:

##### a. Primary data:

Information is collected by conducting a survey by distributing a questionnaire to 200 insurers and non-insurers in India. These 200 insurers and non-insurers are from age group of 18-75 years and different occupations.

##### b. Secondary data:

#### Secondary data used includes:

- Other secondary sources of data include different websites used to find out about the industry background and recent trends in the industry.
- The statistical tools used include the statistical feature of Google Forms (forms.google.com) to draw bar graphs and pie charts of the data collected from the respondents.
- Secondly, MS Excel has been used for analyzing the data and performing various tests on the hypotheses to check their validity.

## 4. Preliminary work/ Survey:

### 4.1 FINDING

**Table - 1: Demographics of the Sample Insurers**

Parameter	No. of Insurers	Percentage %
<b>Gender</b>		
Male	48	24
Female	152	76
<b>Total</b>	200	100
<b>Age</b>		
Between 18-25	172	86
Between 26-35	09	4.5
Between 36-75	19	9.5

<b>Total</b>	200	100
<b>Occupation</b>		
Student	139	69.5
Employee	22	11
Business	03	1.5
Professional	10	5
Other	26	13
<b>Total</b>	200	100

#### 4.1.1 Interpretation:

Table 1 above shows, that 24 (%) of the insurers are male and the rest 76(%) are female. It is observed that a greater number of females have responded to the questionnaire. This may be because females are inherently more inclined towards health and information related to the same.

When it comes to age, it was found that 86% respondents belong to the age group of 18-25. 4.5% of respondents belong to the age group of 26-35 and 9.5% respondents belong to the age group of 36-75 years.

The data also says that 69.5% of respondents are students, 11% are salaried employees, 1.5% are business owners, 5% are professionals and 13% others (homemakers or unemployed) have also filled the form. Hence this sample data is a true representative of the people in India.

#### 4.1.2 Observation:

Due to COVID-19, many people realized the importance of mediclaim insurance policy. People have started taking more interest in health insurance policies. Insurance companies are using digital platform to reach their customers. Majority of companies have come with Covid-19 plans such as CORONA KAVACH and CORONA RAKSHAK POLICY. As Covid-19 has taught us things like basic hygiene factors, wearing face mask, use of sanitizer or social distancing the one very important is that we should not ignore mediclaim policy for self and for the family.

### 5. Outcome:

#### 5.1 Objectives: To study the impact of Covid-19 on Health insurance Premium.

Zee media says as per IRDAI Health insurance Premium will increase by 10% due to medical inflation, exclusion and Covid-19 claims.

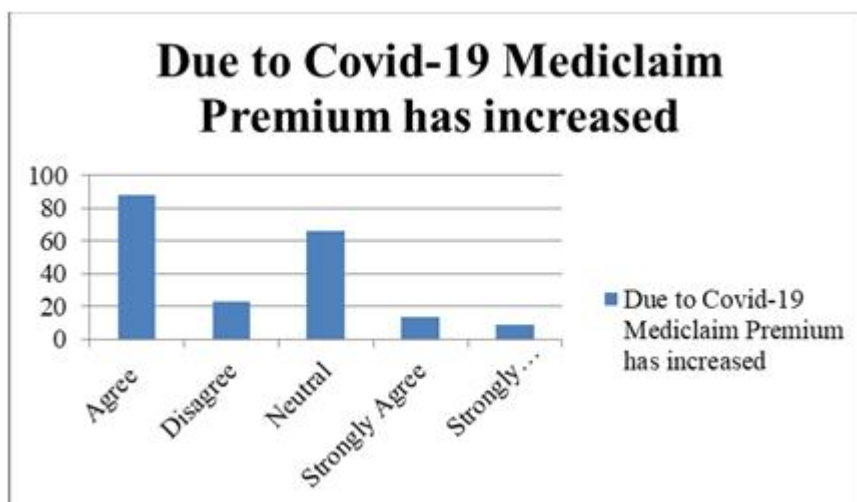
**Table: 2 Health Insurance Premiums by Different Health Insurance Companies**

SR. NO	HEALTH INSURANCE COMPANIES	HOSPITALISATION COVER	EXISTING DEASES COVERED	CLAIM RATE	PREMIUM (in Rs.) (30-35% hike compare to last year)
1	RELIGARE HEALTH INSURANCE	Rs. 5 Lac	After 4 Years	93%	14811
2	MAX BUPA HEALTH INSURANCE	Rs. 5 Lac	After 3 Years	84%	16804
3	ADITYA BIRLA CAPITAL	Rs. 5 Lac	After 4 Years	73%	13568
4	APOLLO MUNICH	Rs. 5 Lac	After 3 Years	85%	14850
5	ROYAL SUNDARAM	Rs. 5 Lac	After 3 Years	77%	14733
6	STAR HEALTH INSURANCE	Rs. 5 Lac	After 4 Years	79%	16921
7	TATA AIG	Rs. 5 Lac	After 4 Years	79%	15462
8	MANIPAL CIGNA	Rs. 5 Lac	After 4 Years	89%	16492
9	BAJAJ ALLIANZ	Rs. 5 Lac	After 3 Years	92%	16693
10	HDFC ERGO	Rs. 5 Lac	After 4 Years	87%	11211
2Adults + 1child Age: 40yrs Source: TRUCOMPARE.in (29/03/2021)					

Table No: 3 Responses of Three Parameters

Responses of Three Parameters						
Parameters	Due to Covid-19 Mediclaim Premium has increased	In %	Covid-19 has affected Health Insurance in India	In %	Due to Covid-19 Medical Expenses has Increased (Medical Inflation)	In %
Agree	88	44	107	53.5	106	53
Disagree	23	11.5	18	9	20	10
Neutral	66	33	30	15	24	12
Strongly Agree	14	7	40	20	42	21
Strongly Disagree	9	4.5	5	2.5	8	4
Total	200	100	200	100	200	100

Chart 1: Due to Covid-19 Mediclaim Premium has increased



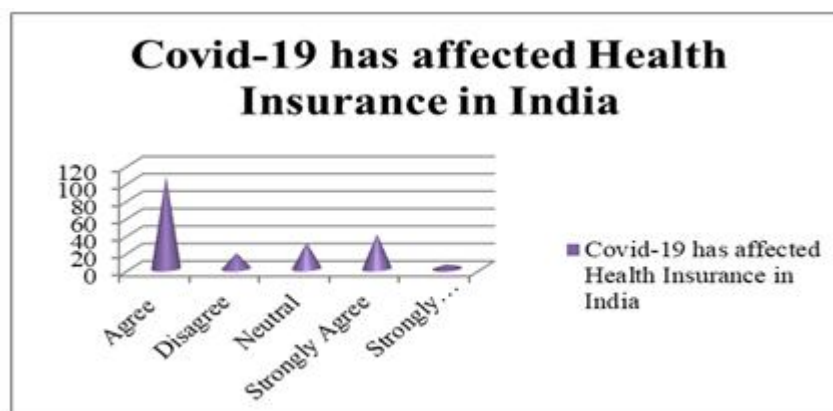
Above chart clearly states that 44% respondent have agreed that due to Covid-19 Mediclaim Premium has increased. Even though IRDAI said that only 10% health insurance premium charges should increase. We see the variation in premium rates of different Health insurance companies.

## 5.2 Objectives: To study the impact of Covid-19 on Settlement of Health insurance Claim

Insurance companies have got to settle COVID-19 claims of Rs. 14,000 crore.

Many serious diseases have been included in Health Insurance Policies as mandated by insurance regulatory IRDAI, if earlier the exclusion was for 30 illness category. It is now being reduced to 17. It included serious diseases like mental disorder, genetic diseases, neuro-related disorders, and psychiatric disorder.

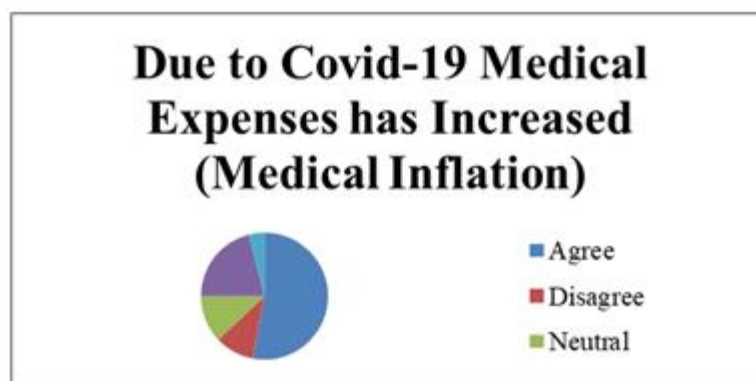
Chart 2: Covid-19 has affected Health Insurance in India



This table indicates that 53.5% respondents have agreed that epidemic covid-19 has affected Health Insurance in India as Settlement of Health insurance Claim have increased due to Covid-19 disease. Insurance companies have got to settle COVID-19 claims of Rs. 14,000 crore. Many serious diseases have been included in Health Insurance Policies as mandated by insurance regulatory IRDAI, if earlier the exclusion was for 30 illness category. It is now being reduced to 17. It included serious diseases like mental disorder, genetic diseases, neuro-related disorders, and psychiatric disorder.

### 5.3 Objectives: To study the increase in medical inflation due to Covid-19.

**Chart: 3 Due to Covid-19 Medical Expenses has Increased (Medical Inflation)**



As per above Table it is clear that 53% students have states that, there has been an increase in medical inflation. There could be various reasons behind it, such as general cost or retail price inflation, increase in the real wages of medical staff, increase in health care access and medical advancements, of which a large components is new drugs and treatments.

### 6. FUTURE SCOPE AND SWOC ANALYSIS:

The serious and sincere efforts taken into the study of the Impact of Covid-19 on mediclaim policy has concluded in presenting this pleasing piece of analytical and mathematical elaboration. But as generally happens to a study by any individual researcher the study is controlled by limitations of time and resources and thus leaves broad scope for further study on related matters.

Because of the current pandemic situation rose due to Covid-19, and lockdown in many parts of our country, this study is restricted to Maharashtra state only. Others state of India have not taken for the study.

This study includes only impact of Covid-19 on mediclaim insurance policy but further studies of impact of Covid-19 on other insurance such as life and property insurance can be conducted. Also this study is conducted by taken into consideration health insurance premium, health insurance claim and medical inflation. Other factors affecting health insurance such as housing, financial security, community safety, employment, education and environment are not taken for the present study. So this study leaves broad scope for these factors of insurance for future study.

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**A STUDY ON NATURAL CAPITAL ACCOUNTING AND VALUATION OF ECOSYSTEM SERVICES (NCAVES) OF INDIA**

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**ABSTRACT**

*In the day to day life of human beings, the contribution of a healthy ecosystem is very important to get clean water, productive soils etc. Large number of the population depend on the ecosystem. Gross Domestic Product (GDP) gives economic performance of a country but it has a limited representation of natural capital that underlines this revenue. Natural capital means all environmental assets and ecosystem services like water purification, air filtration etc. As this capital is required for the economic development, employment, and increase in the Gross Domestic Product of any country. Depletion or degradation of these natural capital may occur as a reduction in the country's wealth and resources. Therefore it is required to do the valuation and proper measurement of an environment by all the countries through Natural Capital Accounting, which is measuring the full extent of a country's natural assets. This study has been undertaken to examine and study the Natural Capital Accounting and Valuation of Ecosystem Services of India. The goal of the research paper is to focus on the importance of valuation of natural resources used by human beings for his economic development. It is observed that in the world nowadays many countries have started working on it, and many countries have started following the System of Environmental Economic Accounting (SEEA). The study is based on secondary data collected from reports of SEEA and NCAVES India.*

*Keywords: Ecosystem Services, Natural Capital Accounting and Valuation of Ecosystem Services, System of Environmental - Economic Accounting, Environmental Policy,*

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**INTRODUCTION:**

The well-being of humans depends upon a healthy ecosystem. In the day to day life of human beings, the contribution of a healthy ecosystem is very important to get clean water, productive soils etc. Large number of the population depend on the ecosystem. Ecosystem provides oxygen to breathe, clean water, food, raw material for industries, natural medicines, and many other services. They always help in improving the quality of life.

Gross Domestic Product (GDP) gives economic performance of a country but it has a limited representation of natural capital that underlines this revenue. Natural resources or natural capital consist of all types of environmental assets existing in the environment and also includes a set of services like water purification, air filtration etc provided by ecosystem assets. Natural resources are important as they are required for the economic development, employment, prosperity and increase in the Gross Domestic Product of any country. But loss of biodiversity, degradation of ecosystems are becoming more evident. Offsetting this loss is not only expensive but also difficult for society. Depletion or degradation of these natural capital may occur as a reduction in the country's wealth and resources. Though India is blessed with rich natural resources, but continuous and wrongly managed usage of resources depleting are this wealth every day. Due to urbanization, overconsumption, overpopulation, natural resources like forest, land, water are depleting. Wildlife is being lost due to hunting, industrialization.

Rapid depletion in renewable and non renewable natural resources of the country indicates that it is high time to maintain proper accounting and effective management of natural resources. It is required to do the valuation and proper measurement of an environment by all the countries through Natural Capital Accounting, which is measuring the full extent of a country's natural assets. NCA helps in providing links between economy, ecology and environment which will be helpful to control and manage natural resources for further growth and development of the country. Within the accounting framework by adopting systematic measurement it will be easy to understand the stock and flows of natural capital.

**REVIEW OF LITERATURE:**

Peter B. (2013), in his study explained that The 1992 Earth Summit drove the launching of System Environmental and Economic Accounting (SEEA). Since then SEEA has given way to green growth and green economy indicators in the 2012 Summit. And now it produced SEEA Central Framework (SEEA-CF). The new framework which will focus on expenditure for environmental protection and resource management, and stocks and flows of "economic" resources, both covered under Conventional national account whereas, Environmental degradation is under "experimental" ecosystem accounts.

Anthony D.(2018), in his study focused that recent international efforts have focused on the development of metrics to supplement or adjust Gross Domestic Product (GDP) to better account for the broader environmental and social impact on economic development. In his paper he had taken a case study of South Shore Long Island Bays to develop a pilot process for applying the EEA within a coastal area. Results indicate significant data gaps for marine and coastal areas that may limit the immediate ability to compile these ecosystem accounts.

Sitki E (2020), explained in his study that water resources are nowadays under pressure and the Water accounting approach of the SEEA has been developed to inform decision - makers on water supply, its use and quality. In his study he focused on the critical issue in water accounting is finding data and models to populate SEEA water accounts. According to him it is needed to see how the SEEA water accounts can be connected to policy uses. The objective of this study is to develop water accounts with the use of a hydrological model. He studied the SWAT hydrological model in the Buyuk Menderes Basin in Turkey to estimate the key hydrological parameters required for water accounting. His article provides new insights into the added value of using a hydrological model in constructing water accounts for better water resources management.

#### **OBJECTIVES OF THE STUDY:**

1. To understand the concept of the System of Environmental Economic Accounting (SEEA).
2. To study the concept of Natural Capital Accounting and Valuation of Ecosystem Services (NCAVES).
3. To study the environmental policy of India.
4. To get the knowledge of the Ministry of Statistics and Programme Implementation (MoSPI) project of India.

#### **RESEARCH METHODOLOGY:**

The study is exploratory in nature, based on secondary data collected from different government websites for analysis. The data was collected through the internet, SEEA reports, NCAVES reports of the Government of India. The reports were studied and analyzed for understanding countries' system of environmental economic accounting practices. The analysis was also presented with the help of tables and graphs. Also, relevant annual reports available on official websites were studied. The conclusions were drawn on the basis of data analysis.

#### **System of Environmental Economic Accounting (SEEA):**

The UN Statistical Commission adopted the System of Environmental Economic Accounting (SEEA) in 2012. It is described as a satellite system to the United Nations System of National Accounts (SNA). It is an internationally recognised standard use for environmental and economic accounting which provides statistics of the environment and its relationship with the economy and expands thereby the traditional system of System of National Accounts (SNA) which focuses only on economic performances. SEEA is a statistical system which measures the condition of the environment, contribution of the environment on the economy and the impact of the economy on the environment by bringing information of an environment and economy together into a common framework. SEEA includes the assessment of trends in the use and availability of natural resources and discharges of the environment resulting from economic activity, and the amount of economic activity undertaken for environmental purposes. It is divided into three parts as follows:

1. Central Framework - Looks at individual environmental assets which move between environment and economy like land, water, energy etc.
2. Experimental Ecosystem Accounting- how an individual environmental assets interact as a natural process within a given area.
3. Extensions and Applications - how the information can be used in decision making, policy formulation and implementation, research and development.

Thus SEEA is a system which provides statistics with different applications in decision making.

SEEA Ecosystem Accounting (SEEA EA) is a framework for integrating measures of ecosystems and their flows of services with human and economic activities. It provides an integrated information system on 1. Ecosystem assets, encompassing ecosystem extent, ecosystem condition, ecosystem capacity and relevant monetary values and 2. Economic and human activities and associated beneficiaries (households, business, government etc.) . This will be helpful in decision making in the ecosystem.

The Assessment of 2020 shows that,

Year	No. of countries	Percentage of Total	Status
2006	49		Countries implemented SEEA
2014	54		Countries implemented SEEA
2017	69		Countries implemented SEEA
2020	62	(70 %)	Countries publish at least one account on a regular basis (stage III)
	11	(12%)	Countries publish their accounts on an ad-hoc basis (stage II)
	16	(18%)	Countries compile, but do not yet publish their accounts (stage I)
	<b>89 Total</b>		<b>Countries implemented SEEA.</b>
	27		Countries were planning to start compiling the accounts.

(source SEEA 2020)

#### Five main Accounts of SEEA Environmental Accounting:

1. Ecosystem Extent Account	This is the first account of Ecosystem Accounting. It provides information on the extent of different ecosystem types (e.g. Forests, wetlands, agricultural areas, marine areas, ) within a spatial area ( administrative region, river basin, etc) in terms of area. This account records the total area of each ecosystem, classified by type within an ecosystem accounting area. This account is measured over time in a specified area, providing an example of the changes in extent from one type to another type over the accounting period.
2.Ecosystem Condition	This account calculates the overall quality of an ecosystem asset and captures. This account records the condition of ecosystem assets in terms of selected features in a set of key indicators, the state or functioning of the ecosystem in relation to both its naturalness and its potential to supply ecosystem services at specific points in time. Over time, they record the changes to their condition.
3.Ecosystem Services	This set of accounts measures and records physical as well as monetary supply of ecosystem services by ecosystem assets and the use of those services by economic units, beneficiaries including households, business etc.
4. Ecosystem Monetary Assets	This account records monetary information of opening and closing stocks of all ecosystem assets and changes in those stocks (additions and deductions). It includes accounting of enhancement and degradation of ecosystems in that period.
5. Thematic Accounts	These are standalone accounts, or sets of accounts, that organize data around specific policy- relevant themes. Three high profile themes are Biodiversity, Ocean and Carbon. Others protected areas are wetlands, forests and urban areas.

The United Nations Statistical Commission endorsed SEEA Experimental Ecosystem Accounting (SEEA EEA) in March 2013. It is the first step in the development of a statistical framework for ecosystem accounting. It was released in 2014 as a joint publication of the United Nations, European Commission, Organisation for Economic Co- Operation and Development , Food and Agriculture Organization of the United Nations and World Bank.

### MOSPI (Ministry of Statistics and Programme Implementation)

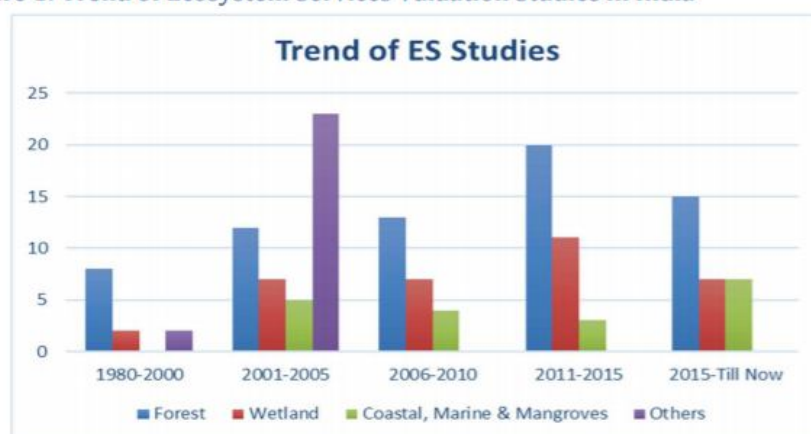
Ministry of Statistics and Programme Implementation (MoSPI) organized Natural Capital Accounting and Valuation of the Ecosystem Services (NCAVES) a three-year partnership funded by European Union. It has been jointly implemented by the United Nations Statistics Division (UNSD), the United Nations Environment Programme (UNEP) and the Secretariat of the Convention of Biological Diversity (CBD).

In this project 5 partner countries India, China, Brazil, Mexico, South Africa are involved. In India NCAVES project is being implemented by MoSPI and the Ministry of Environment, Forest and Climate Change (MoEF &CC) and the National Remote Sensing Centre (NRSC) under the Department of space. This project starts pilot testing of the SEEA EEA in partner countries to build on internationally agreed methodology (System of Environmental Economic Accounting, Experimental Ecosystem Accounting (SEEA EEA) and develop national competences by advancing knowledge on natural capital accounting. The project's main objective in the partner countries is to mainstream natural capital accounting and valuation ecosystem services in data- driven decisions and policy making. The project will review policy demands, data availability and measurement practices. The main objectives of this report are: To make a review of existing ecosystem accounting initiatives and literature in India, to stock- take available data sources for maintaining ecosystem accounts, to find out and collaborate with the institutions which are active in this field, to understand their policy, interest in the field of ecosystem accounting, and their overall potential contributions to the SEEA EEA India Project.

The review of Existing Initiatives, Literature and Data

Valuation of Ecosystem Services is a rapidly growing field of research in India. There has been a surge in the number of valuation studies since 2000. As follows.

Figure 1: Trend of Ecosystem Services Valuation Studies in India



It shows that total 146 Ecosystem studies (ES) conducted in India in the following areas.

	1980-2000	2001-2005	2006-2010	2011-2015	2015- Till date	Total
Forest	7	12	14	20	15	68
Wetland	2	7	7	11	7	34
Coastal, Marine, Mangroves	-	5	4	3	7	19
Others	2	23	-	-	-	25

From the above Table No. 1 and Diagram No. 1 . It shows that in India Ecosystem studies are conducted in Forest area 68, in terrestrial wetlands 34, Marine , coastal , mangroves 19 and in other ecosystems such as urban , agroecological ecosystem 25.

All Indian States have been scored and selected based on the literature review, authors experience, and expert's interviews. Based on ranking matrix and literature review the number of case studies are being processed. A.

State level studies in Madhya Pradesh, Uttarakhand, Karnataka, Assam and Rajasthan. B. Primary studies for Individual Ecosystem Services of Pollination, Gene Pool, Biological Control, and Gas Regulation. C. Study of Ecosystem Disservice of Allian Weed Invasion and D. Spatial Dimension Study on Urban Landscapes.

MoSPI starts the compilation of the Environment Accounts as per the UN-SEEA framework and releases environmental accounts in its publication “EnviStats India” on an annual basis from 2018.

Under NCAVES project one more tool is developed that is India - EVL Tool which is giving values of various ecosystem services in the different states of the country.

### **CONCLUSIONS:**

Though in India, there is the development of environmental accounting under the UN, progress made towards implementation of environmental accounting system of national accounts, inter relation between the SNA and the environmental accounting etc. But these prescriptions are at initial stage by making necessary (CF) to fit the needs and requirements in Indian parlance, India is still facing challenges so far to implement theories in Indian context.

Though national capital accounting started in India, it is required to maintain continuity of reporting at pre-defined frequencies, otherwise there would be chances of losing monitoring on natural resources of the country.

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## CLOUD COMPUTING

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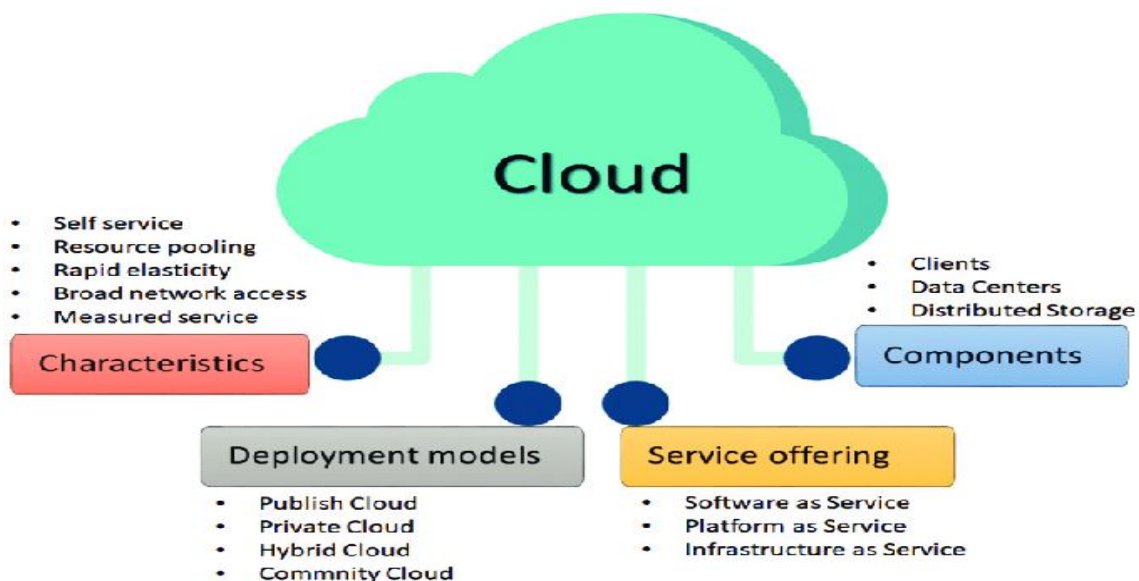
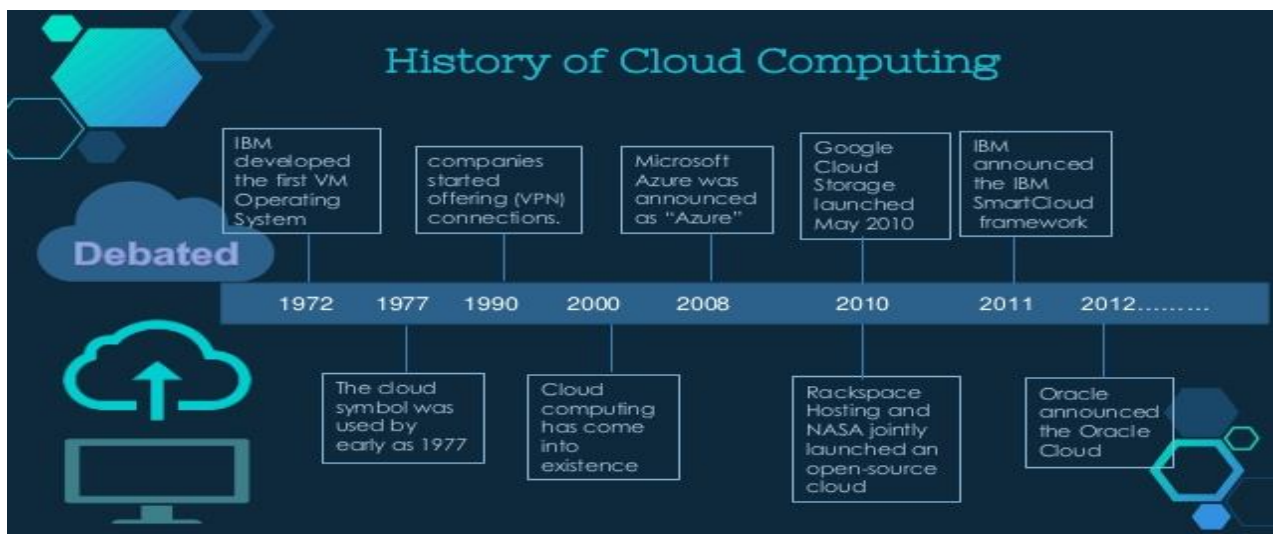
**ABSTRACT**

Cloud Computing is a fast emerging internet based technology which with the help of various computing resources and software's renders the service on different platforms in a very versatile way. It basically aims in providing suitable environment with the help of powerful computing capabilities render Advance service models such as IaaS(Information as a Service), PaaS(Platform as a Service), SaaS(Software as a Service). Along with deployment models like public cloud, private cloud, hybrid cloud and community cloud. In this paper we will explore different models, its issues and some related concepts like security, privacy and reliability.

**1) INTRODUCTION**

Cloud computing is the on-demand availability of the computer system resources, especially data storage which we call as cloud storage and computing power without direct active management by the user. It is originally evolved from distributed computing technology.

However, some issues still need to be addressed in the field of cloud computing like data security and privacy risk and the process to move towards cloud computing. We can understand it by further analysing cloud computing paradigm

**2) CLOUD COMPUTING****A) History**

**Before 1972** The concept of was cloud computing was debated about its future use.

- Then in 1972 IBM developed first virtual machine operating system
- In 1977 the use of the cloud symbol started.
- In 1990 Companies started offering (VPN) connections
- In 2000 Cloud computing has come into existence
- In 2008 Microsoft Azure was announced as “Azure”
- In 2010 Google cloud storage launched in May 2010 also in the same year Rackspace Hosting and NASA jointly launched an open-source cloud
- In 2011 IBM announced the IBM Smart Cloud Framework
- In 2012 Oracle announced the oracle cloud

### B] Definition

Cloud computing is the delivery of on-demand computing services -- from applications to storage and processing power -- typically over the internet and on a pay-as-you-go basis.

Rather than owning their own computing infrastructure or data centres, companies can rent access to anything from applications to storage from a cloud service provider.

One benefit of using cloud computing services is that firms can avoid the upfront cost and complexity of owning and maintaining their own IT infrastructure, and instead simply pay for what they use, when they use it.

In turn, providers of cloud computing services can benefit from significant economies of scale by delivering the same services to a wide range of customers.

When we learn more about cloud computing it is further classifies into 3 main segments which are “Applications”, “Platforms” and “Software’s”

Every segment above serves their own purpose and if further bifurcated into different products for businesses and individual. Above all run with set of rules called s protocols and using a software called as middleware.

### C] Service Model

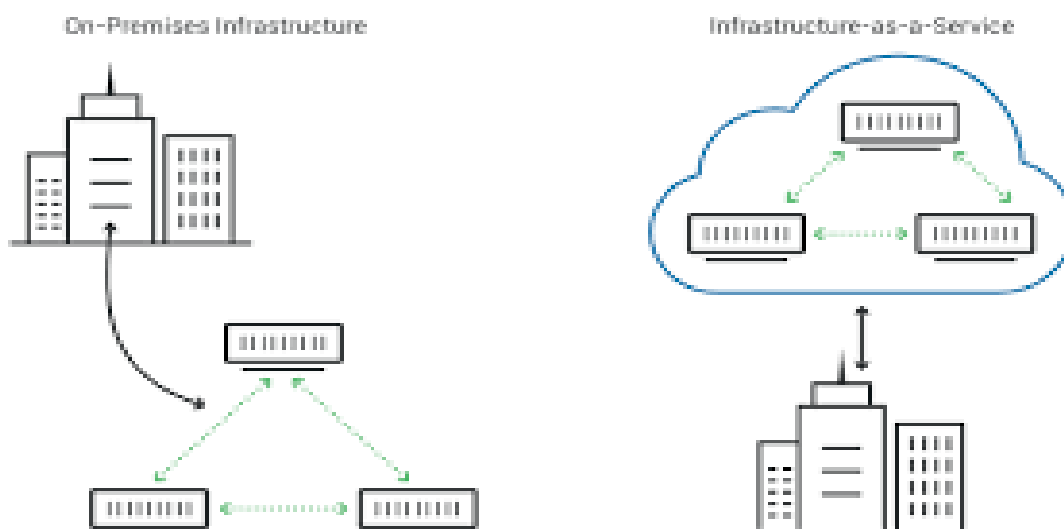
There are 3 types of service models of cloud computing which makes it possible to render several services, which can be defined according to the roles, service providers and the user companies. Cloud computing models and services are broadly classified as below

I} IAAS(Infrastructure as a Service) or HAAS(Hardware as a service)

II} SAAS(Software as a Service)

III} PAAS(Platform as a Service)

**I} IAAS (Infrastructure as a Service) or HAAS (Hardware as a service)**



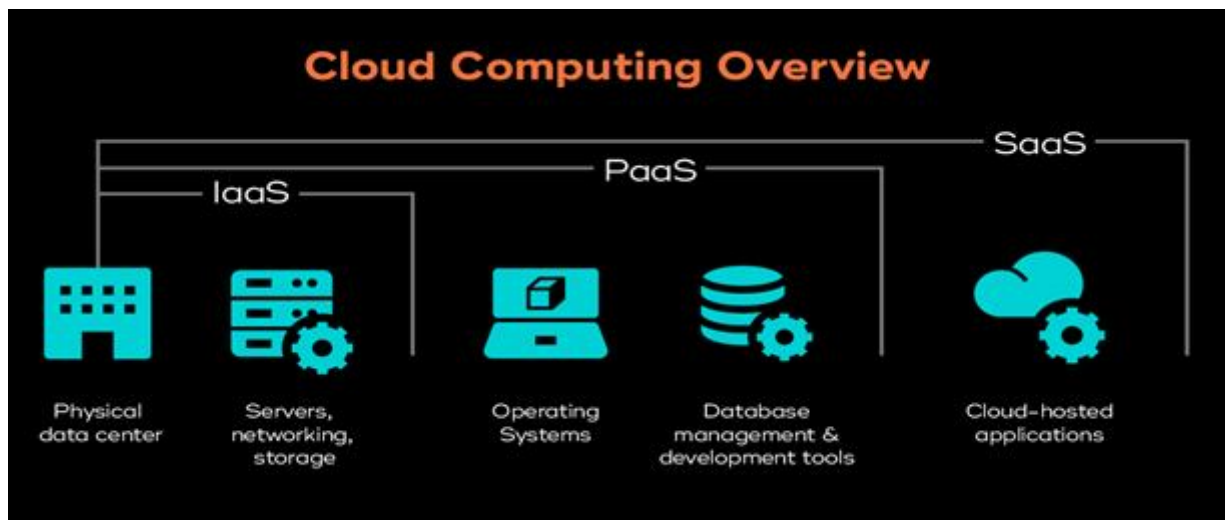
- **IaaS(Infrastructure as a service)** In computing Infrastructure refers to the computers and servers that run code and store data, and the wires and appliances that make the connections between those machines example servers, hard drives, and routers are all part of infrastructure. Before cloud computing was an option, most businesses hosted their own infrastructure and ran all their applications on premises.
- The user does not manage or control the underlying cloud infrastructure but it has control over operating systems, storage, deployed applications, and possibly limited control of select networking components. Rather than purchasing servers, software, data center space or network equipment's, clients etc., this resource is fully outsourced and controlled by outsourcing organizations.
- IaaS includes virtual servers and cloud storage, Cloud security and access to data center resources(managed by IaaS provider like Amazon AWS,Digital ocean, Microsoft azure and many more.

## II} SAAS (Software as a Service)



- Software as a service is based entirely on the internet and it is an approach to software distribution by which software provider host a combination of servers,databases and code to create applications that can be accessed by users from connected devices.Software as a service(SaaS) bring the power of firm's workflow to any user anywhere in the world at anytime
- The end-users does not manage or control the underlying cloud infrastructure including network, servers, operating systems, storage, or even individual application capabilities, with the possible exception of limited user specific application configuration settings. Present SaaS is offered by companies such as Google, Salesforce, Microsoft.

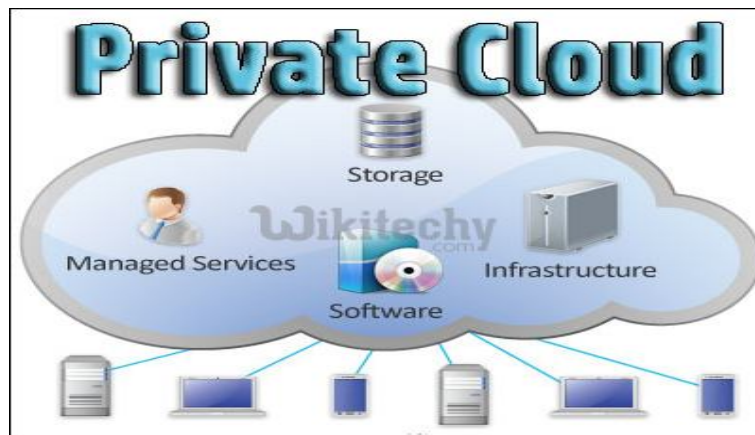
## III} PAAS (Platform as a Service)



- It provides developer with a platform for building applications. Most PaaS offerings include development tools, middleware, operating systems, databases and database management, and infrastructure. A PaaS provider either manages the infrastructure themselves or purchases it as a service from an IaaS Provider
- The end user does not manage or control the underlying cloud infrastructure including network, servers, operating systems, or storage. PaaS providers offer a predefined combination of OS and application servers, such as WAMP platform [5] (Windows, Apache, MySQL and PHP), LAMP platform (Linux, Apache, MySQL and PHP), and XAMP (X-cross platform) limited to J2EE, and Ruby etc. Google App Engine, Salesforce.com, etc are some of the popular PaaS examples

#### D] Deployment models

- I} Private cloud (or Internal cloud)
- II} Public cloud (or External cloud)
- III} Hybrid cloud (or Mixed cloud)
- IV} Community cloud (or Group cloud)
- I} **Private cloud (or Internal cloud)**



- Private cloud or internal cloud are those that are built exclusively for a single business. For many companies considering cloud computing, private clouds are a good starting point. They allow the organization to host applications, development environments and infrastructure in a cloud, while addressing concerns regarding data security and control that can arise in the public cloud environment. It is further differentiated into 2 types On-premises Private cloud and Hosted virtual private cloud
- On-premises Private cloud is hosted within an organisation's own data centre. The benefits of private cloud are it is more cost effective, flexible, dynamic and it fulfills on-demand requirements.
- Hosted virtual private cloud is hosted by a third-party cloud service provider where the provider creates an exclusive environment and takes responsibility for implementing, securing and managing the cloud infrastructure

#### II} Public cloud (or External cloud)



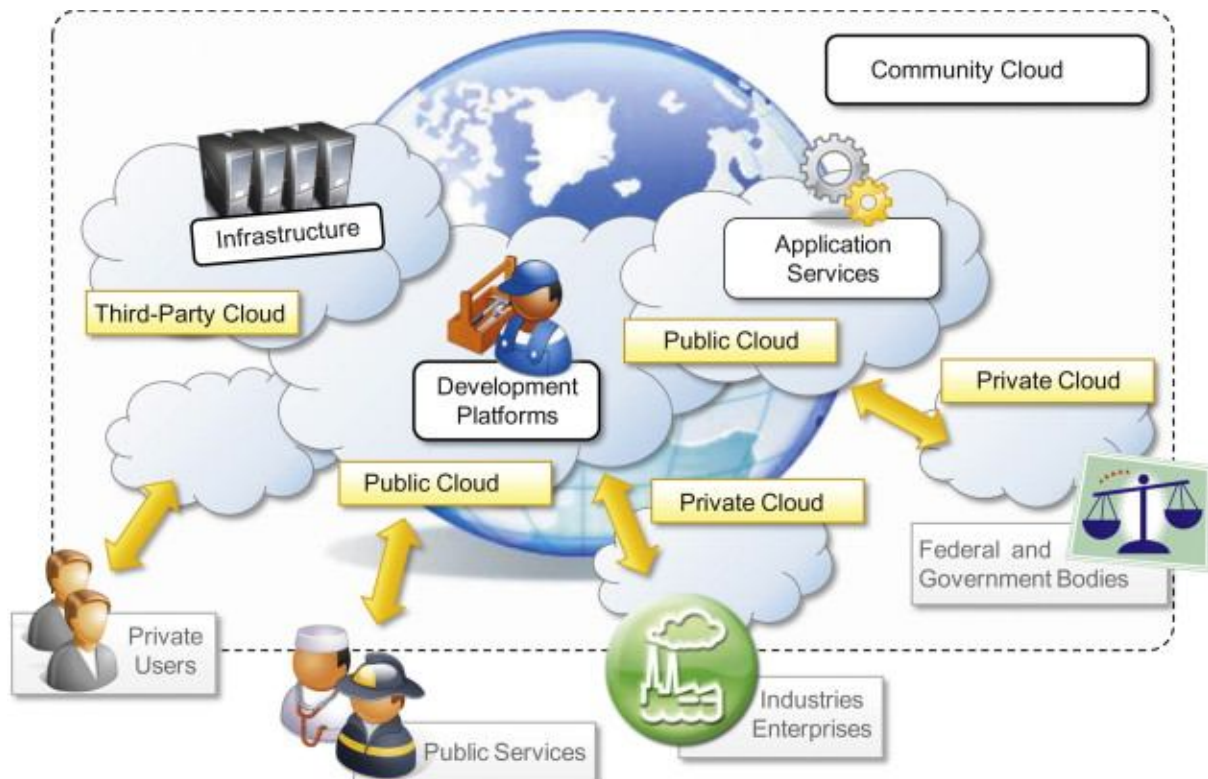
- The public cloud is a series of computing services available on the public internet .It includes software as a service applications such as Salesforce.com pr Google's Gmail ,software development platforms as a service,such as Microsoft azure and infrastructure as a service from wide range of vendors like amazon we services and many more
- It helps in reducing the storage cost, also it improves cash flow by converting capital investments to operating expenses and has a universal accessibility
- Although the public cloud has compelling advantages, there existing the hidden risk of security, regulatory policy compliance and quality of service (QoS) requirements.

### III} Hybrid cloud (or Mixed cloud)



- It is an combination of private and public cloud where one can choose to maintain some systems and data inhouse while using external services where they will be more effective for your business. It gives the comfort level of private cloud along with the flexibility and the versatility of the of the public cloud
- It enables the enterprise applications to running state-steady workload in the private cloud, and requesting the public cloud for intensive computing resources when peak workload occurs
- Some example of hybrid cloud are Amazon Aws, Microsoft azure,Vmware and many more

### IV} Community cloud (or Group cloud)



- Community clouds are integration of services of different clouds to achieve the specific needs of an industry, a community or a business sector. The cloud infrastructure is shared by several organizations and supports a specific community that has shared concerns (e.g. Mission, security requirements, policy and compliance considerations). It may be managed by the organization or a third party and may exist on premise or off premise.
- The cloud community forms into a degree of economic scalability and democratic equilibrium. This is emerging cloud used by many social networking sites like Facebook and many more

## **E] Advantages of cloud computing**

### **I} Cost Saving:**

Cost saving is one of the biggest Cloud Computing benefits. It helps you to save substantial capital cost as it does not need any physical hardware investments. Also, you do not need trained personnel to maintain the hardware. The buying and managing of equipment is done by the cloud service provider.

### **II} Strategic Edge :**

Cloud computing offers a competitive edge over your competitors. It is one of the best advantages of Cloud services that helps you to access the latest applications any time without spending your time and money on installations.

### **III} High speed :**

Cloud computing allows you to deploy your service quickly in fewer clicks. This faster deployment allows you to get the resources required for your system within fewer minutes.

### **IV} Backup and restore the data :**

Once the data is stored in a Cloud, it is easier to get the back-up and recovery of that, which is otherwise very time taking process on-premise.

### **V} Automatic software integration :**

In the cloud, software integration is something that occurs automatically. Therefore, you don't need to take additional efforts to customize and integrate your applications as per your preferences.

### **VI} Unlimited storage capability:**

The cloud offers almost limitless storage capacity. At any time you can quickly expand your storage capacity with very nominal monthly fees.

## **F] Disadvantages of cloud computing**

### **I} Performance can vary :**

When you are working in a cloud environment, your application is running on the server which simultaneously provides resources to other businesses. Any greedy behavior or DDOS attack on your tenant could affect the performance of your shared resource.

### **II} Security threat in cloud :**

Another drawback while working with cloud computing services is security risk. Before adopting cloud technology, you should be well aware of the fact that you will be sharing all your company's sensitive information to a third-party cloud computing service provider. Hackers might access this information.

### **III} Downtime :**

Downtime should also be considered while working with cloud computing. That's because your cloud provider may face power loss, low internet connectivity, service maintenance, etc.

### **IV} Lower bandwidth :**

Many cloud storage service providers limit bandwidth usage of their users. So, in case if your organization surpasses the given allowance, the additional charges could be significantly costly

### **V} Internet connectivity :**

Good Internet connectivity is a must in cloud computing. You can't access cloud without an internet connection. Moreover, you don't have any other way to gather data from the cloud.

## **E] CONCLUSION**

In this paper we have discussed and analyzed the cloud computing technology. It describes cloud background, evolution, definition, service models, deployment models, along with advantages and disadvantages of cloud computing. There is no doubt that the cloud computing is the emerging development

trend in the future. Cloud computing brings us the approximately infinite computing capability, good scalability, on- demand service and so on, also challenges at security, reliability, and privacy, legal issues and so on. Because of this, it has been attracted by everyone including the attackers.

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**IMPACT OF COVID-19 ON INDIAN PRIMARY MARKET**

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**EXECUTIVE SUMMARY**

*In a **primary market**, securities are created for the first time for investors to purchase. New securities are issued in this market through a stock exchange, enabling the government as well as companies to raise capital.*

*For a transaction taking place in this market, there are three entities involved. It would include a company, investors, and an underwriter. A company issues security in a primary market as an initial public offering (IPO), and the sale price of such new issue is determined by a concerned underwriter, which may or may not be a financial institution. An underwriter also facilitates and monitors the new issue offering. Investors purchase the newly issued securities in the primary market. Such a market is regulated by the Securities and Exchange Board of India (SEBI).*

*The entity which issues securities may be looking to expand its operations, fund other business targets or increase its physical presence among others. **Primary market example** of securities issued includes notes, bills, government bonds or corporate bonds as well as stocks of companies.*

*An IPO brings in new investors to a firm, which facilitates the firm's access to future growth capital. Being public also reduces the costs of raising future capital by stimulating the supply of information from the investment community.*

***Overheated IPO markets could result in cascades in which enthusiastic investors overbid for IPOs, create bubbles, and ride them out.** The subsequent correction of bubbles and the distorted real investments induced by wrong price signals could create negative externalities for the real economy*

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**OBJECTIVE OF STUDY:**

1. To study the number of companies which Made Public Issue during the Pandemic.
2. To study the increase in demand for Information Technology, many Startup company went for public Issue.
3. To study the reason companies making Public Issue especially during the pandemic.
4. To study Profit or Loss on Listing of Companies on BSE or NSE

**TIMELINE OF THE PANDEMIC:**

- On December 31 last year, China alerted the WHO to several cases of unusual pneumonia in Wuhan, a city of 11 million people.
- January 31: India airlifts citizens from China. One month after the new disease was first reported. The flight with 324 Indian passengers left Wuhan at 4 am on February 1.
- March 11: The **World Health Organization declares Covid-19 a pandemic**
- March 22: Upon a call by Prime Minister Narendra Modi, a 14-hour voluntary lockdown called '**Janata Curfew**' was observed in India.
- March 25: A nationwide **lockdown was imposed till April 14**, with only essential services kept out of its purview
- March 27: RBI announces a **three-month moratorium** (March 1 to May 31) on loan and card repayments and slashed its main policy rate — repo rate by 75 basis points and cash reserve ratio (CRR) of banks by 100 basis points to stabilise the financial markets and reduce the pain on borrowers hit by Covid-19 pandemic.
- April 14: Prime Minister Modi **extends the 21-day lockdown to May 3**. 10,000 confirmed cases were recorded. Ministry of Home Affairs issues "National Directives" for COVID-19 management, makes wearing a face cover mandatory in work and public spaces.
- May 1: Home Ministry extends **lockdown for two weeks** starting May 4 with zone-wise restrictions. Divides districts into red, orange and green zones on the basis of cases.

- May 17: MHA **extends lockdown till May 31**, allows inter-state movement of passenger vehicles, buses with mutual consent of states. With nearly 86,000 cases, India overtakes China in terms of the total number of cases reported.
- May 25: Domestic **flight services resume** in a calibrated manner, with only 30% of regular schedules.
- June 8: Phased reopening begins, with **Unlock 1.0 guidelines coming into force**, as India records more than 2,50,000 COVID-19 cases and 7200 deaths.

#### RESEARCH METHODOLOGY:

The study is based on an extensive secondary research. Many news articles and websites.

#### DATA ANALYSIS

The List of Companies made Public issue during 2020 – 2021 & Change of Price from Issue price is given below:

No	Company Name	Date of Issue	Industry	Issue Price	Listing Price	% of Earning / Loss	Reason for Initial Public Issue
1	Barbeque Nation Hospitality	24 <sup>th</sup> – 26 <sup>th</sup> March 2021	Hospitality	498 – 500	590	18.1% Profit on Listing	To Repay their borrowings & Future expansion
2	NIKS Technology	19 <sup>th</sup> – 23 <sup>rd</sup> March 2021	Digital Marketing	201	204.5	1.7% Profit	To repay their borrowing & Expansion.
3.	NAZARA Technology	17 <sup>th</sup> – 19 <sup>th</sup> March 2021	IT – Software	1,100 – 1,101	1971	79.01% Profit on Listing	Promoters sold their shares & Future Expansion
4	Suryoday Small Finance Bank Ltd	17 <sup>th</sup> – 19 <sup>th</sup> March 2021	Banking	303 – 305	293	<b>4.09% Loss on Listing</b>	Future Capital Requirement
5	Kalyan Jewellers India Ltd	16 <sup>th</sup> – 18 <sup>th</sup> March 2021	Diamond & Jewelry	86 - 87	69.9	<b>19.7% Loss on Listing</b>	Funding Working Requirements & Future Expansion of New Stores
6	Laxmi Organic Industries Ltd	15 <sup>th</sup> – 17 <sup>th</sup> March 2021	Chemical	129 – 130	156.2	<b>54.1% Profit on Listing</b>	<b>New Investments, Working Capital, Capital Expenditure &amp; Future Expansion</b>
7	Easy Trip Planner	8 <sup>th</sup> – 10 <sup>th</sup> March 2021	Hospitality	186 – 187	206	10.1% Profit on Listing	Promoters sold their shares & Future Expansion
8	MTAR Technology	3 <sup>rd</sup> to 5 <sup>th</sup> March 2021	Engineering	574 – 575	1063.90	<b>85.02% Profit on Listing</b>	<b>To partly or fully repay company's borrowings. To finance companies working capital requirements.</b>
9.	Heramba Industries LTD	23 <sup>rd</sup> – 25 <sup>th</sup> Feb 2021	Chemical	626 - 627	900	43.5% Profit on Listing	To meet business working capital requirements. Future Expansion
10.	Railtel Corporation of	16 <sup>th</sup> – 18 <sup>th</sup> Feb	Telecom	93 -94	104.6	31.4% Profit	To carry out the disinvestment plan.

	India LTD.	2021					To achieve the benefits of equity share listing on the stock exchanges.
11.	MRP Agro	9 <sup>th</sup> – 10 <sup>th</sup> Feb 2021	Trading	40	39.75	0.625% Loss on Listing	To meet business working capital requirements. Future Expansion
12.	Brookfield India Real Estate Trust REIT (Brookfield India REIT) Detail	3 <sup>rd</sup> – 5 <sup>th</sup> Feb 2021	Real Estate	274 – 275	275.05	0.025% Profit on Listing	To make partial or full payment of existing indebtedness of the Asset SPVs.
13.	Stovecraft LTD.	25 <sup>th</sup> Jan – 28 <sup>th</sup> Jan	Consumer Durable	384 – 385	467	31.40% Profit on Listing	To partly or fully repay company's borrowings. To finance companies working capital requirements
14.	Indigo Paints	20 – 22 <sup>nd</sup> Jan 2021	Chemical / Paints	1,488 – 1,490	2,607.5	<b>61.9% Profit on Listing</b>	New Investments in Capital Expenditure, Working Capital, Capital Expenditure & Future Expansion
15.	IRFC	18 <sup>th</sup> – 20 <sup>th</sup> Jan	Finance	25 – 26	25	<b>4% Loss on Listing</b>	To carry out the disinvestment plan. To achieve the benefits of equity share listing on the stock exchanges.
16.	Antony Waste Handling Cell Ltd	21 – 23 Dec 2020	Miscellaneous	313 - 315	430	36.50% Profit on Listing	New Investments in Capital Expenditure, Working Capital, Capital Expenditure & Future Expansion. To make partial or full payment of existing indebtedness of the Asset
17.	MRS. Bector Foods LTD	15 – 17 <sup>th</sup> Dec 2020	FMCG	286 – 288	501	<b>74% Profit on Listing</b>	<b>To finance the cost of Rajpura Expansion Project. To meet general corporate purposes.</b>
18.	Burger King India LTD	2 <sup>nd</sup> – 4 <sup>th</sup> Dec	Hospitality	59 – 60	115.5	<b>120% Profit on Listing</b>	<b>To finance the roll-out of new company-owned Burger King Restaurants. To meet the general corporate</b>

							<b>purposes.</b>
19.	<b>Nureca Ltd</b>	<b>15<sup>th</sup> Feb – 17<sup>th</sup> Feb 2021</b>	<b>Trading</b>	<b>396 - 400</b>	<b>634.95</b>	<b>58.7% Profit on Listing</b>	<b>New Investments in Capital Expenditure, Working Capital, Capital Expenditure &amp; Future Expansion. To make partial or full payment of existing indebtedness of the Asset</b>
20	Gland Pharma LTD	9 <sup>th</sup> – 11 <sup>th</sup> Nov 2020	Healthcare	1490 – 1500	1701	13.24% Profit on Listing	New Investments in Capital Expenditure, Working Capital, Capital Expenditure & Future Expansion.
21	Likhita Infrastructure LTD	29 <sup>th</sup> – 7 <sup>th</sup> Oct 2020	Infrastructure	116 - 120	130	8.33% Profit on Listing	New Investments in Capital Expenditure, Working Capital, Capital Expenditure & Future Expansion.
22.	GM Polyplastic LTD	30 <sup>th</sup> sep – 6 <sup>th</sup> Oct 2020	Plastic	159	160	0.62% Profit on Listing	Promoters sold their shares & Future Expansion
23.	AAA Technologies LTD	30 <sup>th</sup> Sep – 5 <sup>th</sup> Oct 2020	IT	42	44.5	6% Profit on Listing	New Investments in Capital Expenditure, Working Capital, Capital Expenditure & Future Expansion.
24.	Mazgaon Dock Shipbuilders Ltd	29 <sup>th</sup> Sep – 1 <sup>st</sup> Oct 2020	Ship Building	135 - 145	216.25	32.94% profit on Listing	To carry out the disinvestment plan of 30,599,017 equity shares by selling shareholders constitutes 15.17% of pre-offer equity share capital
25.	Computer AGE Management Service Ltd	21 <sup>st</sup> – 23 <sup>rd</sup> Sep 2020	IT / BPO / ITES	1,229 – 1,230	1,518	23.41% Profit on Listing	To carry out the Offer for Sale of up to 18,246,600 Equity Shares by the Selling Shareholders.
26.	<b>Route Mobile</b>	<b>9<sup>th</sup> – 11<sup>th</sup> Sep 2020</b>	<b>IT</b>	<b>345 – 350</b>	<b>708</b>	<b>377% Profit</b>	<b>New Investments in Capital Expenditure, Working Capital, Capital Expenditure &amp;</b>

							<b>Future Expansion.</b>
27.	<b>Happiest Mind Technologies LTD</b>	<b>7<sup>th</sup> Sep – 9<sup>th</sup> Sep 2020</b>	<b>IT</b>	<b>165 – 166</b>	<b>351</b>	<b>304.6% Profit</b>	<b>New Investments, Working Capital, Capital Expenditure &amp; Future Expansion.</b>
28.	Suratwala Business Group LTD	3 <sup>rd</sup> – 5 <sup>th</sup> August 2020	Real Estate	15	16%	<b>333.333% profit till 7/4/2021</b>	Working Capital, Capital Expenditure & Future Expansion.
29	Rossari Biotech LTD	13 <sup>th</sup> – 15 <sup>th</sup> July	Chemical	423 – 425	670	<b>57.64% profit on listing price</b>	New Investments in Capital Expenditure, Working Capital, Capital Expenditure & Future Expansion. To make partial or full payment of existing indebtedness
30.	MindSpace Business Park REIT	27 <sup>th</sup> – 29 <sup>th</sup> July 2020	Real Estate	274 – 275	304	10.54% profit on Listing Price	Partial or full pre-payment or scheduled repayment of certain debt facilities of the

## FINDINGS

1. More than 30 Companies made their Initial Public Offer.
2. Many Start up IT Companies made their shares available to Public
3. IT Companies made their public Issue for Capital Expenditure & Working Capital Requirement.
4. Real estate Companies made their Public Issue for Capital Expenditure & Working Capital Requirement
5. Government Companies made disinvestment.
6. Many Companies made their public issue for repayment of Debt, as it increases burden on their profitability.
7. Chemical & Agricultural Companies made their share Public for Capital Expenditure & Working Capital Requirement
8. Many Companies' Promoter sold their shares to Public.
9. FMCG Companies Performed extremely well during their public issue.
10. Textile Companies Shares were also issued to Public, due to current situation it doesn't Performed well.
11. Oversubscription was observed during many of the public Issues subscription.
12. Because of heavy demand share price of many companies were on bullish rally.
13. After the initial listing bullish rally, many shares fell flat. The share prices saw a considerable bearish rally in the secondary market.
14. This study observed that NIFTY and Sensex were having positively strong correlation with IPO Index.
15. Secondary market benchmarks NIFTY and SENSEX were not influencing the primary market new issues during the study period.
16. Indian GDP growth rate is having a positive influence.

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**CONCLUSION:**

We conclude the analysis of Impact of Covid'19 on primary markets of India with the observation that Indian equity market is influenced by economy positively. Indian capital markets are having more than 140 years of history, it has attracted common man to invest in Indian equity markets. Many Common Investors has shown their interest in Primary market for listing gains. The equity markets are largely dependent on the movement of Indian economy. The primary policy objective in IPO markets is to facilitate access to capital at a fair price for Company. Many of the regulatory steps that were taken to improve the Indian IPO market appear to be reasonable. Start-Ups had opportunity for expansion; many companies went for expansion which is good sign for economy. Agro – Chemical Company has raised funds which is good sign for economy. Engineering companies have issued capital for Capital Expenditure which is boost for Industry. Interest burden from company has been declined which will increase profitability of company. It has shown positive impact on investor as well as for companies for future expansion.

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**A STUDY ON EMPLOYEE PRODUCTIVITY IN WORK FROM HOME CULTURE UNDER COVID 19 PANDEMIC**

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**ABSTRACT**

*In 2019 employees would do anything to get a paid half-day or leave to stay home but as the year 2020 unfolds many got their dream of taking a break from the monotonous life, they were leading all these years due to the lockdown imposed due to COVID-19 Pandemic. Initially it was a big step for the companies to take by allowing their employees not punch into the office regularly but rather stay home and access work online. Various businesses were hit due to lockdowns and the Indian Economy took quite a toll in terms of GDP and employment rates. Money was not easily accessible as the businesses had started cutting percentages from employee's salary in order to compensate the losses they faced. Whether it was education, hospitality, real estate, Sensex, customer support almost every industry faced the wrath.*

*As the days are passing organizations are re-opening their gates for the employees to go back to their regular work environment but there are many who trained their employees during these tough times to work from home without compromising on deliveries. Big organizations are now promoting work from home initiative as it helps them in cutting costs on office rents, office utilities, travel allowances and much more. The question is are employees still psyched about getting to work from home as they were initially or do they prefer returning to their original work environment.*

*Keywords: Work from home, COVID-19 pandemic, productivity*

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**RESEARCH METHODOLOGY**

Research Objectives:

1. Understand the impact of work from home on employee productivity.
2. Understand if work from home brings comfort to employee's life.
3. Determine whether work from home culture can bring health hazards to employees by making their life more sedentary.

Data Collection: Secondary Data

Research Limitations:

The research is based on secondary data only.

**LITERATURE REVIEW****Hazards of Work from home Culture:****1. Sedentary lifestyle**

As the world move towards automation and use of AI technologies various activities that involved physical movement of individuals are now done with a click in a blink of a second. To add to this now employees are encouraged to work from home rather than travelling to their workplace thus promoting more sedentary culture of living. The employees at least earlier took efforts to get up, dress up and commute for work. Today, employees simply have to get up put on a formal shirt and sit in front of their smart device which can be done sitting on their respective beds.

**2. Lacks social touch**

As mentioned above a year earlier people took the efforts to get out of the bed, dress up and be presentable. Since the COVID-19 pandemic discourages any social meeting or public gathering employees are least concerned about their appearances and their interactions with the office staff and clients. This has made people return to their comfort zones making them distant from any regular social interactions whatsoever. Even though the internet promises to bring world closer and increase connections it lacks the human touch and the ability to make people really connect.

**3. Makes work monotonous and boring (team work and brainstorming)**

The pre-pandemic work environment which was ever dynamic made by the people in it made work interesting and new. However, due to the current situations work is generally assigned on a greater scale and the employee interactions are limited. The team building activities like brainstorming, case studies solving, etc. are restricted

to the screens and microphones of the smart devices. Employees are doing the same tasks repeatedly without any inputs or experience sharing with other employees. This will create a disinterest in the minds of the workforce.

#### **4. Demotes confidence**

Earlier any event was acknowledged easily by people. There were greater interactions and dependencies within organizations. This changed when the work culture shifted to online from offline. People rather avoid getting into conversations online due to the technical difficulties or hesitant nature. This makes the conversations very formal and structured. While formal and structured is good to move an organization in one direction, it is not that favorable when employee engagement is needed. This is because employees feel more comfortable in an informal setting or a subtle light environment rather than a screen with a list of agendas to conquer. More and more people are confined in their household spaces for work, more they miss out on inspirations that the outside world has to offer making their knowledge restricted putting their self-worth under question.

#### **5. Engages in misleading the organization**

Another drawback with WFH can be the lie on the employee's end. Employees might get tired and frustrated working from home for hours and might end up on cutting work by excusing themselves with reasons that are untrue. Technical difficulties, poor internet connectivity, poor IT infrastructure, freezing screens on e-meets, faking their work records, hiding whereabouts are a few misleading activities that employees can easily undertake in lieu of WFH.

#### **6. Extended working hour**

WFH did not come easy in the lives of employees. Understanding new culture, new SOP's and practicing same took time. While the employees were busy adjusting, employers were busy designing and implementing thus making change constant. In order to adapt the changes employees required to put extra efforts along with extra hours to procure the same output they earlier achieved in fixed office hours.

#### **7. Familial issues**

Many individuals do not have proper space in their houses to practice WFH. This is specially a concern with employees living in metropolitan region where the average house is only of 300-600 sq. ft. and families are big. Also, the household work pressure increased due to laying off of house help. Earlier if there was a stress concerning personal/ family life employees had a window of going to work to take a break from the issue but work from home is narrowing the distances when it is much needed. Many face issues handling children at home and their demand for attention while the working parents were at home.

#### **8. Ergonomic problem**

Ergonomic refers to the scientific study of people and their working conditions, especially done in order to improve effectiveness. At Indian homes majority people face space crunch due to big families and small living spaces. Even if the person is living in the nuclear family very low importance is given to having his/her own study where they can work. This creates various health problems like damage in the spinal cord, spondylosis, lower back pain, shoulder pain, tensed nerves, wrists etc. A study done by New York times suggests that 92% chiropractors said that there is a surge in the patients since work from home began with problems of wrist pains, back and shoulder pains with other musculoskeletal issues. Space constraints can sometimes create mental health disturbances that affects productivity.

#### **9. Poor time management skills**

Now that employees can work from home, they have the advantage of sleeping an hour late finishing their household chore or a movie and getting up an hour late that they earlier dedicated to travelling for work. This can turn into a disaster too as employees may become lazy and sleep for longer hours and attend their morning meetings on their bed with their smartphones. This will reduce their concentration as they will neither be present physically nor mentally in the meeting. Also, there are employees who have to work for late hours due to technological difficulties or increased work pressure and get up early, also as they are home now they are responsible for certain household chores which they didn't have to do when they were in office all these factors requires employees to improvise their schedules regularly depending upon the uncertain work load and lack of support.

#### **10. Is the environment correct?**

Due to the work from home fiasco living rooms and bedrooms have become office cubicles where people are confined for their entire working hours and more often, more. It is always recommended to keep one's personal and professional life separate but how shall one do so when their home is their workplace. The line between the two walks of life is becoming blur as one is engaging its activities from home in the presence of their family.

The practices all these years about confidential meetings, staff activities, coffee breaks are endangered by this work from home practice.

The modern homes are built for the individuals to be comfortable, the cliché “to be at home”. The lighting, décor and furniture are designed to make an individual relax and unwind from the fatigue of their professional life. This however may impact productivity badly. The same lighting is not for an individual to work neither are the furniture as they are designed to make one feel cozy.

#### **Advantages of work from home:**

##### **1. Stress free work**

If you reside in a metropolitan city like Mumbai where commuting to work is the biggest stressor work from home is a blessing.

##### **2. Control over day-to-day work activities**

As one gets to work from home, he/she gets majority autonomy in the way he/she wants to attain their targets. Whether they want to work early mornings or late nights is really up to the employees. This flexibility gives employees more scope to manage their day-to-day activities with family as well as tasks assigned professionally.

##### **3. Convenience**

It is really a matter of convenience and putting oneself at ease when the work from home concept was introduced. It was not only considered as a great way to reduce operational costs like office spaces and electricity but also gave employees the choice of commuting to work at their will which in turn boosts their productivity. Many employees prioritized work from home option while looking for a new job.

##### **4. Close to family**

The most obvious benefit of work from home is that it brings one close to the family space. The employee spends more time with the family while working from home and can enjoy meals, small talks, reconnect with the family. It was noted in a research that people became closer to family and were able to give them better time and care.

##### **5. Effective when has both household and work responsibilities**

Work from home can prove very effective for people with new responsibilities like having an infant or toddler in the house or being a newlywed. The individual here can give more time to the familial responsibilities by cutting the travel time and other non-productive activities one engages in at workplace. Also, individuals playing double role i.e. of an employee as well as a housewife/ mother/ single parent/ caretaker can now establish better schedules to complete tasks in multiple roles.

#### **RECOMMENDATIONS**

1. Organizations must ensure that employees are aware about the concept of work life balance and practicing to attain the same.

2. Organizations worry about output and productivity. Installing systems to monitor daily productivity of employees will not only keep the organization updated but will also keep the employees alert about their output making them active. At the same time these monitors must not take away much time of the employees or be a burden that will interfere with the employee's work-life balance.

3. Organizations are relying on online meetings to check on employees. It is recommended that offline meets are conducted at regular intervals to bring a change in the employee's schedules and even work patterns if required.

4. It is recommended to have strict work from home guidelines established by organizations specially with respect to working hours. An employee must report to work at an established time as well as get off of work as per the working hours. Late nights and longer working hours only tires the resources and does not maintain any productivity.

5. As it is not possible to monitor and guide employees the way it was in the physical environment, it is best to give employees more autonomy in achieving their work goals. This way the employee can be working in their own comfort zone and still get results thus making them productive without being a burden.

#### **CONCLUSION**

As the world is moving towards being electronically updated in every aspect of life it is vital to check its impact on human life. Humans already feared that technology will take over their jobs making their roles redundant and not required. By indulging in work from home and keeping the employees away from the workplace it is

difficult to establish trust and personal contact between the employees and the organizations as it was in a physical setup. On the plus side people who are talented and very well versed with technology sees this as an opportunity to save more time and venture into other secondary incomes. India being a developing country known for its abundance of labor will suffer immensely as the population here is mostly not tech savvy thus inefficient and undermotivated to adapt to this culture not to forget that the country is indebted and in vast requirement of an economy boost.

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## A STUDY ON THE ROLE OF MARKETING STRATEGIES AS A GROWTH CATALYST IN MICROFINANCE SECTOR

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### ABSTRACT

*Marketing strategy is a long-term, forward-looking approach of any organization or any business with the fundamental goal of achieving a sustainable growth in competitive market by understanding the needs and wants of customers. Developing competitive strategy requires significant judgement and is based on a deep understanding of the firm's current situation, its past history and its operating environment.*

*Marketing strategies is outline plan of the specific action to be taken to achieve the objective in long-term. Marketing strategy is a method for identifying the target market and converting into profitable opportunities. The study aims to understand the impact of marketing strategy's adopted by MFIs for future growth. The study is based on secondary data collected from national and international articles, journals, official website of NABARD, RBI and IDBI.*

*Key Words: Microfinance institutions, marketing strategies, target market.*

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### I. INTRODUCTION

Marketing is to discover unmet need and prepare satisfactory solutions to targeted clients. Marketing tools are advertising, promotion mix, sales force, direct marketing public relationship management and community marketing can play a significant role in retaining existing clients or creating new clients for institutions products and services.

Since the inception of microfinance, the products were designed for the specific requirement of masses at the bottom of the development pyramid. MFIs promoted it through mechanism of loan and their repayment, they use loan products as screening devices to reduce the credit risk. Marketing tools are essential now for the MFIs due to change in the scenario of microfinance in India as

- Customers are growing sophisticated and price sensitive
- They are short of time and need more convenience
- Growing competition in micro-finance sector
- Innovative practices adopted by the competitors
- Retention of existing customers and attracting new customer

To gear up with all the above challenges it is vital for microfinance institutions to adopt marketing strategy for potential growth.

### II. STATUS OF MICROFINANCE INSTITUTION IN INDIA AND ITS GROWTH IN LAST FIVE YEAR

Microfinance holds the largest share of loan portfolio in India. MFIs are providing great impetus to the unorganized sector, generating business, creating jobs and transforming standard of living of millions of beneficiaries. With the introduction of institutional provisions like revision of RBI guidelines for NBFC-MFI operations, launch of MUDRA bank and small bank licenses over the past few years the microfinance industry has seen strong growth. As per MFMI micrometre report as on 31 March 2019, the microfinance industry had total loan portfolio (i.e., total loan outstanding) of ₹1,87,386 cr, of which NBFC-MFI as a group was the largest provider of micro credit with total loan outstanding of ₹68,868 cr (37 %) registering a growth of 42 % over the previous year.

### III. OBJECTIVES

- To study the impact of marketing strategies on growth Micro finance institutions.

### IV. LITERATURE REVIEW

Geeta, n.d. (2020), According to researcher there is high level of dropout after every short-term loan cycle is there, the Microfinance institutions need to focus on marketing orientation concept rather following on product orientation concept and it's a big challenge for them.

Chakraborty(2015), The study undertaken to discover the various regulatory, organizational, technical and financial factors that hinder product refinement, development and innovation. Before introducing new product successfully in market, marketing strategy is used to position the product in market place.

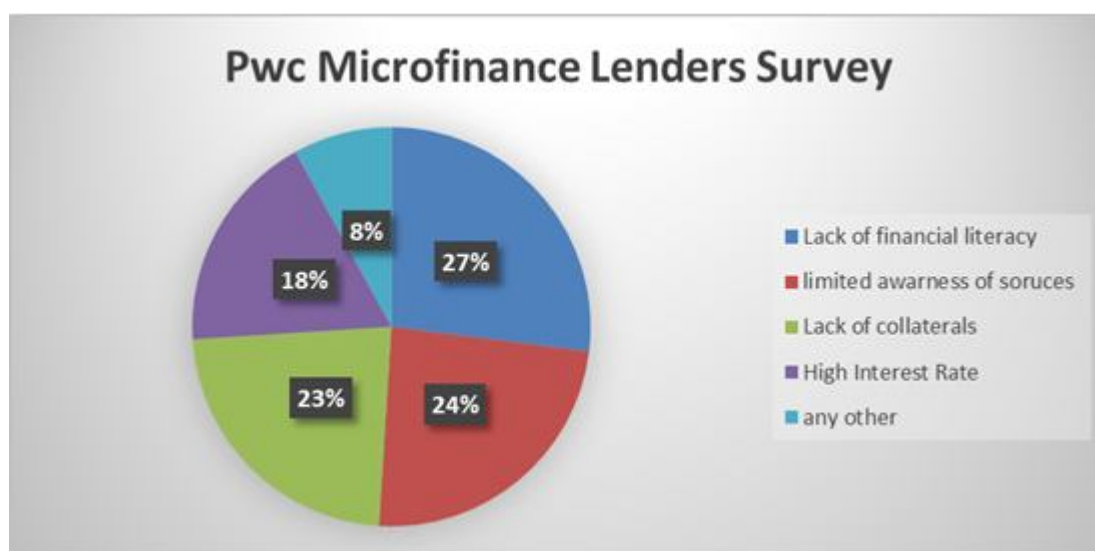
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Gabriel et al., n.d. (2011), This study focused on identifying whether micro finance institutions (MFIs) within the Accra metropolis use marketing approaches and strategies in savings mobilization and credit delivery.

## V. RESEARCH METHODOLOGY

For the purpose of the above study, the researcher focused on secondary data such as official reports, newspaper, journals, research paper, articles, websites and other sources.

According to the two surveys conducted by the PwC during September 2019, their second survey was designed to understand customer sentiments regarding microfinance industry. According to the data collected by them on 200-respondent following is chart shows the result.



Sourced from: file:///D:/phd/Research%20Paper/MFI\_SummaryReport-31122019.pdf

From their survey it shows that there is financial literacy and awareness among the prospectus client is only 27% and 24%. The survey emphasized on the opportunity for microfinance growth through the relevant awareness program.



Sources from: <https://www.gfsi.in/mfis-as-business-correspondents-designing-for-client-adoption/>

According to the business correspondent posted on Dec 3, the Grameen Foundation for Social Impact, the organization focused through consistent theme-based communication educating what they deposit can be withdrawn when they want. Second, they educated clients savings account benefits and the importance of making a transaction every 6 months, helped in the continuation of account. Third, encouraged clients for small deposits, even amounts as low as INR 20. This initiative resulted in clients becoming confident in their ability to make these transactions, and feeling a greater sense of trust toward Cashpor. They adopted the policy of word of mouth and influencers for promotion of their product and service.

According to the Suryoday Small Finance Bank report published on January 12, 2018, the MFI growth plan was having a huge network of 20–30 good quality business correspondents (BCs), will offer doorstep-banking services. With every branch, they planned to have at least three to five BCs. and by March 2018 they had planned to have 1,500-2,000 BCs. They introduced shopkeeper loans, whereby they provided facilities of go and pick up the instalment/collections daily. The customer can pay us during the month at any point of time on any day.

## **VI. CONCLUSION**

MFIs need to take initiative to build on awareness programme about different sources available to tap the target market by having strong marketing promotional activities. MFIs are focusing more on the conventional method of financial system for targeting clients.

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**ARTIFICIAL INTELLIGENCE –AN AID TO HEALTHCARE IN PANDEMIC**

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**ABSTRACT**

*With the ongoing medical crisis for last one year the importance of health care is increasing tremendously. At the same time due to lockdown medical facilities in physical form is undergoing a difficult situation. Several doctors and medical practitioners are preferring online consultation and medical advice due to fear of pandemic. Technology has been a boon in this case. In this paper artificial intelligence (AI) branch of technology is discussed in depth. Artificial intelligence (AI) has been developing rapidly in recent years in terms of algorithms, implementation in hardware, and applications in a vast number of areas. In current era of machine learning and AI, healthcare sectors still face several challenges in many of its services. Health data management is gaining tremendous significance in the contemporary world. Hospitals depend on ICT (Information and communication Technology) to restore a variety of data by digitalizing the reports. Digitisation helps keep people connected with their doctors and fine tune the patient- doctor relationship physically and virtually. This system ensures the people to have a better medical experience and leads them to a healthy life. This indirectly improves the health status of the nation. Due to current scenario the medical industry is looking for various new technologies that can monitor and control the spread of pandemic. AI can be looked as one such technology which can aid healthcare industry in several ways like track the spread of virus, control infection, identify patients which are at high risk etc. It can also help in predicting the risk of mortality. AI can help to fight the virus by screening of population, giving medical help, notify and give suggestions about the control of infection.*

*The paper focuses on the role of artificial Intelligence in health care and how it can be used in fighting the pandemic.*

**KEYWORDS:** Healthcare, AI, pandemic.

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**Objective**

- Role of AI as an aid to healthcare in current pandemic of COVID-19.

**INTRODUCTION**

When the term artificial intelligence is referred usually robots come to back of one's mind which is impression from films and stories. In real terms, Artificial Intelligence (AI) refers to the simulation of human intelligence in machines that are programmed to think like humans and mimic their actions. The term can also be applied to any type of machine that imitates behaviours associated with a human mind such as problem-solving and learning.

The ideal characteristic of artificial intelligence is its ability to rationalize and take actions that have the best chance of achieving a specific goal. A subset of artificial intelligence is machine learning, which refers to the concept that computer programs can automatically learn from and adapt to new data without being assisted by humans. AI also refers to circumstances wherein machines can simulate human minds in learning and analysis, and thus can work in solving variety of problems. This kind of intelligence is also referred to as machine learning (ML).

Deep learning another approach of AI enables automatic learning through the captivation of huge amounts of data in unstructured format such as text, images, or video. AI often revolves around the use of algorithms. Many AI algorithms are capable of learning from data; they can enhance themselves by learning new heuristics

Due to the rapid development of AI software and hardware technologies, AI has been applied in various technical fields, such as the Internet of Things(IoT) wherein IoT devices collect and transmit data from multiple sources—supporting the “learning” process involved in training AI to carry out automations, machine vision to detect the position of targets and send the position information to the robot, autonomous driving, natural language processing, and robotics. Most interestingly, researchers in the medical fields have been actively trying to apply AI to help improve analysis and treatment outcomes and, consequently, increase the efficacy of the overall healthcare industry.

Healthcare organizations are in an urgent need for decision-making technologies to handle pandemic due to virus and help them in getting proper suggestions in real-time to avoid its spread. AI works in a skilful way to

mimic like human intelligence. It can also play a dynamic role in understanding and suggesting the improvement of the situation. This result-driven technology is used for proper screening, analysing, prediction and tracking of current patients and likely future patients. The significant applications are applied to tracks data of confirmed, recovered and death cases. AI has been working behind the scenes by assisting the limitations of human knowledge in this enormous endeavour.

### **APPLICATIONS**

Following are some of the applications of AI in pandemic of COVID-19

1. **Detection at an early stage and diagnosis of infection:** As compared to conventional approach where symptoms in patients are analysed, if match is found then sample is sent for testing, then depending on result and severity patient is admitted or quarantined. After treatment the test is conducted again and in case result is negative patient is said to be cured. If retest is positive patient is again isolated till next retest is negative. On the other hand, AI based approach can be used for similar process above which helps to deliver faster decision making and also which is cost effective. AI also helps diagnosis of infected cases using algorithms and medical imaging technologies like CT(Computerized Tomography) and MRI(Magnetic Resonance Imaging) scan which has become a vital part of CORONA detection. Various AI programs are now available for screening of chest that can highlight lung abnormalities in a chest X-ray scan and provide a COVID-19 risk evaluation much faster than human radiologists.
2. **Monitoring treatment and tracing of individuals:** Using AI smart platforms can be constructed which can help in automatic monitoring and prediction of the virus spread. In order to extract visual features of this virus neural network can be used which can be used to monitor and treat properly the individuals affected. AI also can provide day wise updates of the patients and various solutions to be followed in the pandemic. AI can also help to identify the “hot spots” and cluster areas and analyse the level of infection. It can also help in predicting the future course of virus and its likely reappearance.
3. **Forecast of cases and mortality:** AI can be used to keep track and estimate the nature of the virus from data that is available on various social media and platforms which can be used to predict the risks of infection of the virus and its spread. Also number of positive cases and death in any particular area can be predicted. AI can help to identify the major susceptible regions so that proper measures can be taken in time in order to avoid calamity.
4. **Reducing workload of healthcare personnel:** Due to pandemic it is observed that healthcare personnel from all categories are in tremendous pressure and working day and night to deal with the situation. Here AI can be used to reduce their workload to some extent. For example, digital approach and decision science can be used to diagnose at early stage the virus and provide treatment. Give best training to all health personnel including students and doctors regarding new disease. AI can be used to address probable challenges which can impact patient care in future and reduce the workload of all health personnel.
5. **AI and vaccine development:** In the process of formulation of vaccine, the virus is identified, inactive proteins are extracted which generate the immunity response. But in reality for an immune response to be activated, specific parts of virus have to be exposed to antibodies. Hence to identify these specific parts and understand their properties is a major challenge. AI is becoming an increasingly useful tool in this process. First the proteins data of this virus was collected and was compared with that of the data collected by researchers over many years on typical viral properties which trigger antibodies to recognise common properties. Once the data is collected on a large scale, prediction can be done as to which viral proteins will trigger an immune response.
6. **Prevention of the virus:** AI can help in providing update information using real-time data analysis which can be used in prevention of disease. AI can be used to predict probable sites where there is more infection, invasion of virus, increase needs for beds and more health care professionals during the crisis. Prior data recorded at different time can be mentored to study the future vi

### **CONCLUSION**

AI is an important upcoming res.

Technology which will aid healthcare in dealing with virus. It can provide precautionary measures to fight against pandemic. It can significantly improve consistency in treatment and decision by developing efficient algorithms that can help in various stages from detection till prevention. It can help in keeping track of virus at different levels and applications. It will also help to facilitate research on analysing this virus with the help of

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available data and develop proper treatment, prevention strategies and drugs. AI will play a vital role in providing more predictive and preventive healthcare.

It can track the crisis of COVID-19 at different scales such as medical, molecular and epidemiological applications. It is also helpful to facilitate the research on this virus using analysing the available data. AI can help in developing proper treatment regimens, prevention strategies, drug and vaccine development.

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**THE COMING PROSPERITY: HOW ENTREPRENEURS ARE TRANSFORMING THE GLOBAL ECONOMY**

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**ABSTRACT**

*Ours is the most dynamic era in human history. The choices we make today will determine the extent and reach of the coming prosperity. To make the most of this epochal transition, it states, the key is entrepreneurship. Entrepreneurs introduce new products and services, expand the range of global knowledge networks, and, most importantly, challenge established business interests, maintaining the vitality of mature capitalist economies and enhancing the viability of emerging ones. In The Coming Prosperity, the introduction of the majority of the world's population into the global economy should be considered a source of opportunity. As technology spreads and communication between populations improves, more people will have a greater opportunity to create economic value for themselves and society than ever before. The success of integrating developing populations and societies into the global economy lies with the entrepreneur. Personal, social entrepreneurship narratives must be linked with a more global movement, in which developing economies are not threats to the world's stability, but rather unique opportunities to discover new pathways toward progress and the coming prosperity.*

*Keywords: Social entrepreneurship, Global movement, coming prosperity.*

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**Objective Of The Study:**

The main objective of this research is to make people understand the importance of entrepreneurs and to clarify their role in the rapidly changing global economy.

**Hypotheses:**

H1: Do Entrepreneurs have the potential to transform the global economy?

H2: Entrepreneurs can become the indicators of global prosperity.

**INTRODUCTION:**

Entrepreneurship primarily means an independent economic activity, which is aimed at making a profit using a legal business. In many ways, an entrepreneur is an innovator who introduces new products, new technologies, and new forms of business organization on a commercial basis. Also, business people take financial risks and responsibilities.

Globalization has opened a window to the rest of the world for small business. In a world where entrepreneurs face increasing competition, globalization gives them many new opportunities. Another factor that has played an important role in providing small entrepreneurs with broad and cheap access to the global market is technological progress, mainly in the field of telecommunications and computers. Modern entrepreneurship is one of the most important elements of a market economy. It largely determines the rate of economic growth and quality of the national product. Also, it contributes to maintaining competition and forming a new social stratum. Contemporary business people create new workplaces all over the world and pay taxes. Discovery and exploration of new foreign markets is not an easy task, but precisely small business owners are breaking the existing barriers in international trade, revealing the endless potential for their own growth, and transforming the global economy today.

Entrepreneurship serves both as an engine driving economic growth and a strategy that promotes the discovery, dissemination and application of innovative ideas. By so doing, it aims at ensuring efficient utilization of resources and expanding the boundaries of economic activities while serving as a conduit for a spillover of knowledge that leads to the shifting of resources towards more productive activities. Moreover, various studies have also shown an inherent relationship existing between entrepreneurship and forces that shape economic prosperity. It is also identified that there exists a virtuous cycle type of relationship between innovation, entrepreneurship and economic growth in which all the variables exert positive effects on one another. Improving one of the factors could induce a positive change in another. Efficiency economies could make much more of their entrepreneurship by encouraging more people to identify entrepreneurial opportunities and pursue their entrepreneurial intention.

**LITERATURE REVIEW:**

Entrepreneurship plays a critical role in national and regional economic. Entrepreneurship, as a driver of an economy, determines the prospects of the economy and sets the pace of economic growth through creating employment opportunities, spurring innovation, facilitating effective and creative ways of utilizing resources, expanding and extending economic boundaries and, ultimately, improving social welfare and growth. Notwithstanding the advantages that entrepreneurship provides to economic growth, there is a concern about the kind of entrepreneurship that countries need to promote. Research has attested that the contributions of different kinds of entrepreneurship vary from one economy to another. Apparently, meaningful early entrepreneurial activities are stronger in well-developed economies than in economies in transition or efficiency-driven economies. Researchers found that the significant investments in research and development, strong technological environments and robust economic standards of innovation-driven economies enabled them to create entrepreneurs with high impact. As a result, they enjoy an abundance of high-impact technological entrepreneurs to a greater extent than economies dominated by necessity entrepreneurs. This creates a formidable basis for new entrepreneurs to meaningfully contribute to their country's economic development.

According to many researchers, innovation-driven economies are benefiting greatly from the proliferation of high-growth-expecting firms. As per these researchers, high-growth entrepreneurs basically represent opportunity-motivated ones. Because opportunity entrepreneurs are always keen for growth and recognize opportunities arising from innovative ideas, whereas necessity entrepreneurs intentionally avoid growth because their ultimate goal is survival. Having recognized the strong contribution opportunity entrepreneurship makes to economic growth, many researchers question why innovation-driven economies are a fertile ground for high-impact entrepreneurs while others are not. The results have never been conclusive. Some attribute this to the well-entrenched entrepreneurial culture of these countries. The culture in developed economies encourages a significant portion of their population to become self-employed and to focus mainly on technological breakthroughs that create added value in high-tech and knowledge-intensive sectors. Various studies have confirmed that fostering innovation and a robust entrepreneurial environment, which will make a meaningful contribution to the economy, is impossible without the prevalence of strong institutional frameworks and infrastructures. Thus, we can take the strong economic system that promotes new technology, increased pace of innovation and a short product life cycle as a solid manifestation of the robust and supportive institutional frameworks that these countries have built over some years.

Research suggests that economies (innovation-driven economies) which foster the creation of firms that are inspired by innovation and high-growth potential see their actions lifting their GDP significantly this condition is further reinforced through favorable institutional frameworks, helping innovators to have a remarkable impact on economic growth attempts.

**• WHY ENTREPRENEURS ARE ESSENTIAL TO THE GLOBAL ECONOMY?**

Entrepreneurs are creating jobs at more than twice the rate of established companies. They drive innovation — often much more quickly than established competitors. Successful entrepreneurs, by definition, have figured out a way to do things better. They have challenged the status quo, asked tough questions and competed with established businesses. When an entirely new industry is created, the odds are that an entrepreneur is responsible. When entrepreneurs are able to innovate like this, they drive economic growth and create jobs at an even faster rate. Surveying innovative entrepreneurs those who created an entirely new product or service in the past year it were found they were 95 per cent more likely to increase their workforce over the next year, compared with those who were not as committed to innovation.

**ENTREPRENEURSHIP COMES WITH ITS SHARE OF UPS AND DOWNS.****ADVANTAGES OF BEING AN ENTREPRENEUR:**

- The most obvious advantage is the opportunity to be your own boss. Being in charge and making the important decisions regarding your business can be fulfilling, but it can also be challenging.
- **CONTROL.** You choose the work you like to do and that makes the most of your strengths and skills. The result can be more job satisfaction.
- **EXCITEMENT.** Entrepreneurship can be exciting and many entrepreneurs consider their work highly enjoyable. Each day is filled with new opportunities to challenge your abilities, skills, and determination.
- **FLEXIBILITY.** Entrepreneurs can schedule their work hours around other commitments, including spending quality time with their families

- **FREEDOM.** Freedom to work whenever they want, wherever they want, and however they want draws many to entrepreneurship. Most entrepreneurs don't consider their work actual work because they are doing something they love.
- **RATIONAL SALARY.** As an entrepreneur, your income is directly related to your efforts and the success of your business.
- **Entrepreneurs can choose to pursue any idea they want.** The only thing that limits your pursuit of a dream as an entrepreneur is your imagination. If you think there is an idea that you can follow, and then go after it with everything that you have. Build that app which you believe could change the world. Tell your story by writing an autobiography. Sell your artwork online, even if everyone tells you that artists don't succeed. Follow your instincts, and there is an excellent chance that a good idea will seem like a great one to all of your future customers. "In the age of transparency, honesty, and generosity, even in the form of an apology, generates goodwill," advises Alexander Assail, founder of Jawbone. It's okay to be embarrassed by the first iteration of your product. Entrepreneurship succeeds more often if you're willing to launch early instead of waiting until it is too late.
- **You get to be more involved with your community as an entrepreneur.** The flexibility in your schedule that you can have as an entrepreneur is an excellent way to become more involved in your community in a variety of ways. You can serve at your local food bank, coach youth sports, or find other ways to tie your volunteer work to your efforts with a new business. These opportunities will help you to network with others, promote your personality and brand, and build your business while you are helping others at the same time.
- **You are viewed as a leader.** This increases confidence. People say "you have a brilliant business model" and all sorts of other compliments that are very nice.

#### DISADVANTAGES OF BEING AN ENTREPRENEUR:

- **ADMINISTRATION.** While making all the decisions can be a benefit, it can also be a burden. Being an entrepreneur comes with a lot of paperwork that can take up time and energy.
- **COMPETITION.** Staying competitive is critical as a small business owner. You will need to differentiate your business from others like yours in order to build a solid customer base and be profitable.
- **LONELINESS.** It can be lonely and scary to be completely responsible for the success or failure of your business.
- **NO REGULAR SALARY.** Being an entrepreneur often means giving up the security of a regular paycheck. If business slows down, your personal income can be at risk.
- **WORK SCHEDULE.** The work schedule of an entrepreneur can be unpredictable. A major disadvantage to being an entrepreneur is that it requires more work and longer hours than being an employee.
- **The world of entrepreneurship is going to dominate your life.** Your productivity as entrepreneurs is what will direct you toward success or guarantee your failure. There are no off days when you embrace this journey. If you're not working, then you're not earning. There are no paid lunches, no weekends off, no holiday pay, and no benefits. It is you vs. the rest of the world.
- **Stress levels are high in the world of entrepreneurship.** Meditation is the most common habit that people have when they pursue an idea as an entrepreneur. They make time for it because the stress levels are so high when you are scratching and clawing for a successful opportunity with everything that you've got. 1 in 3 people say that they worry all of the time about something when they're working for themselves instead of someone else.
- **Funding can be a significant problem for entrepreneurs.** There are investors who might be willing to take a chance on your idea, but that is not a guarantee. You might find angels or venture capitalists who want to take a risk, although the odds of that are usually slim-to-none. You might attempt to do some crowd funding, even though you might not get any money from this work.
- **You wear a lot of hats.** You are not just the owner of the company. You are the CEO, secretary, website designer, accountant, head of marketing, and janitor. That is, until you can afford to delegate this to contractors and employees. And then you take on the title of "employer" which, true, replaces some of these other titles, but also brings a whole new set of benefits and challenges to the table.

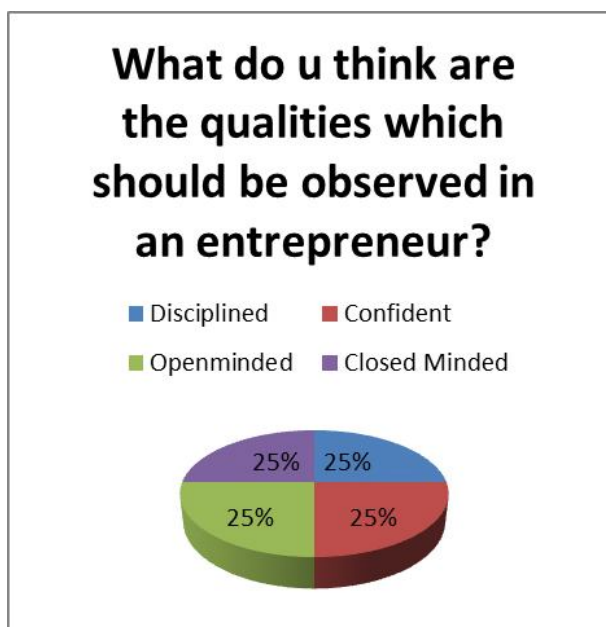
**DATA COLLECTION METHOD:**

I collected data using two methods which are-

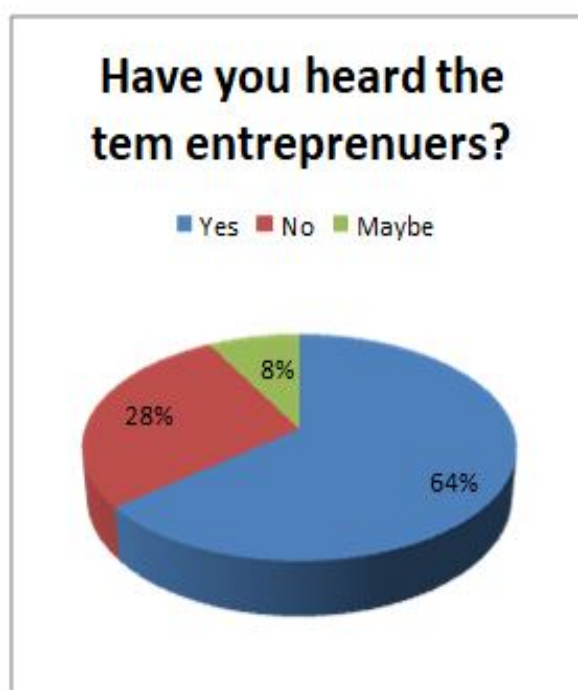
- 1) PRIMARY DATA COLLECTION METHOD
- 2) SECONDARY DATA COLLECTION METHOD

❖ PRIMARY DATA:

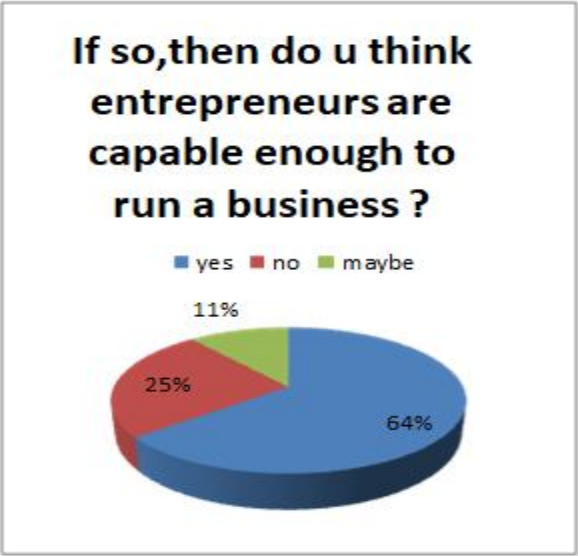
I collected primary data using Google forms as a survey form and by circulating it on social media to my friends and acquaintances. That way I collected 100 responses from them which was really helpful in increasing my knowledge about how much the term entrepreneurship has truly been understood in India. The sample size that I chose was my society and my colleagues. After collecting those responses I made pie charts on the 12 questions that I asked them in the Google questionnaire. It is as follows:-



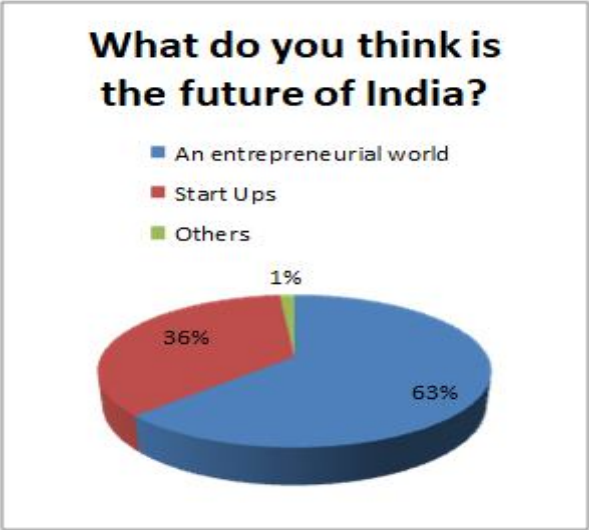
This above pie chart depicts that each quarter of the population chose each of the option, i.e., Disciplined, Confident, open minded and closed minded.



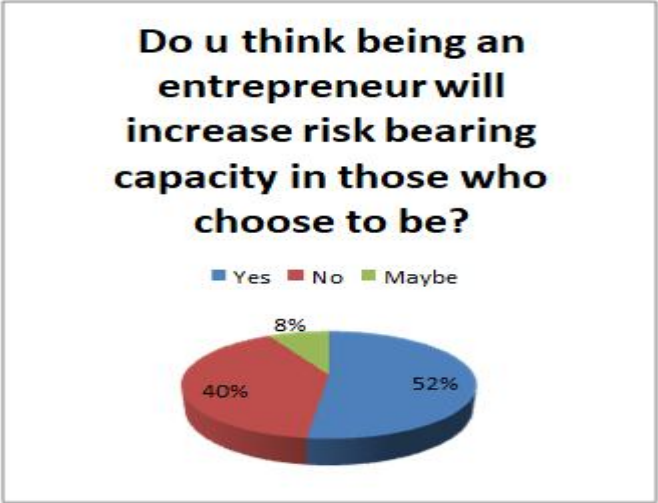
So the above pie chart shows that 64% of the population have heard the term entrepreneurs, while 28% are not aware it and the rest 8% are not sure if they heard or not.



This pie chart pictographs that 64% of the population think that entrepreneurs are capable enough to run the business, while the 25% don't think so and the remaining 11% are not sure.



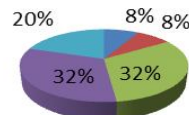
This chart asks the population as to what is the future of India. 63% say an entrepreneurial world is the future, 36% say that start ups are, while the 1% have opted for others.



This chart poses the question as to whether being an entrepreneur will increase the risk bearing capacity. 52% say yes to this, 40 % disagree and the 8% are not sure.

**More creative and innovative ideas will come to the front of entrepreneurialism is encouraged. Do u agree...**

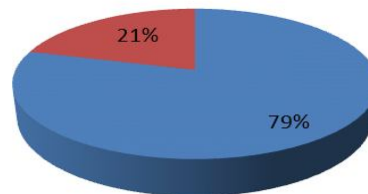
■ Strongly Disagree
 ■ Disagree
 ■ Neutral
 ■ Agree
 ■ Strongly Agree



This pie asks whether more innovative and creative ideas will come to the front if entrepreneurship is encouraged. 32% strongly agree, 8% strongly disagree, 20% agree, 8% disagree while the remaining 8% are neutral.

**Entrepreneurs impact the economy globally. What's your take on that?**

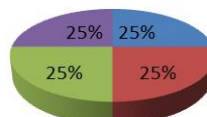
■ Yes
 ■ No



Entrepreneurs impact the economy globally. 79% have said yes, while the rest 21% have answered a no.

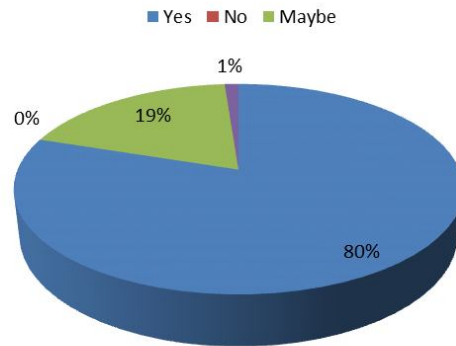
**Many young minds do not have the necessary funding to have their own start ups. What do you think could be the ways to keep them motivated and to continue in their...**

■ Teachers Help And Students Role
 ■ Diligency
 ■ Take Risks
 ■ Loans Can Be Provided



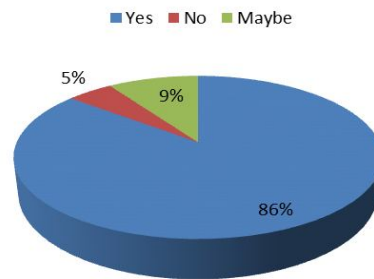
Many young minds do not have the necessary funding to have their own start ups. What do people think could be the ways to keep them motivated and to continue in their journey? 25% have responded with diligence, 25% with the role teachers and students must play, 25% feel that loan must be provided while the remaining quarters think that entrepreneurs must learn to take risk.

### Can entrepreneurs contribute to the economic development?



This pie chart asks if entrepreneurs contribute to the economic development. 80% have responded with a yes, 19% with a no and the 1% with a maybe.

### Do you think great entrepreneurship skills can make the business successful?



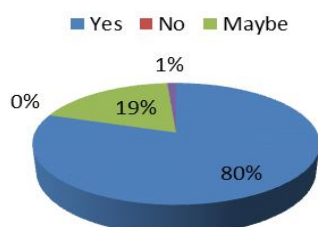
Do people think great entrepreneurship skills can make the business successful? 86% think they do, 9% think they don't and the 5% are not sure.

### RESULT TO HYPOTHESES:

H1: Do Entrepreneurs have the potential to transform the global economy?

I conducted a research based on my above first Hypothesis. Not only a research but also a background collection of data and questions asked to people I know in my society and colleagues. To my hypothesis, as an answer I got the responses to my questions, positive. The proof to that is the following pie chart of data collection from responders.

### Can entrepreneurs contribute to the economic development?



H2: Entrepreneurs can become the indicators of global prosperity.

To my second hypothesis, I personally visited small business & entrepreneur's shops, conducted a research and came to the conclusion that such small entrepreneurs are the indicators to Global Prosperity. The proof to this hypothesis is the 7<sup>th</sup> question included in my primary data.



### FINDINGS:

From my primary data and secondary data collection method, I found out that entrepreneurialism is spreading rapidly in India and almost everyone is aware of the same. They are even ready to encourage young minds to come up front and share their own innovative and creative ideas which could slowly and gradually transform the economy globally. Both of my hypotheses being proven is like the icing on the cake.

### RECOMMENDATIONS:

#### ➤ The Government's Role in Encouraging Entrepreneurship:

- 1) **Help facilitate walkable business districts.** Walkability is a huge factor in small business success and can create fertile soil for entrepreneurship to thrive. In a concentrated, walkable neighborhood with shops and restaurants, passersby are far more likely to frequent multiple businesses than if they were just driving to a specific store in an auto-oriented area. And as a bonus, walkable neighborhoods in city after city across the country demonstrate far greater tax revenue per square foot than any other type of development. So help your city move toward walkable neighborhoods by slowing cars in existing business districts, widening sidewalks, and placing public benches and planters to improve the landscape. When you have the choice between using land for a parking lot or a productive business, make the right choice and enable a business instead of car storage.
- 2) **Simplify local regulations for starting new businesses.** Make the business start-up process simple. Instead of forcing entrepreneurs to jump from government office to government office filling out forms and asking questions, create a central space on your local government website that walks business owners through the process of getting started: which forms to fill out, who to contact, how long each step takes, etc. Cut out any superfluous steps if possible. Consult existing business owners in the process to find out how they got started.
- 3) **Dedicate resources to economic gardening.** While it's important to focus on helping people start businesses, a concerted effort should be put into helping businesses grow. Growth presents a whole new set of challenges. Providing businesses with resources to take their business to the next level is a proven way to strengthen the local economy.

#### ➤ The Private Sector's Role in Encouraging Entrepreneurship

- 1) **Provide easy access to small business loans and/or grants.** Banks, community development corporations (CDCs) and other community development financial institutions (CDFIs) are all in a position to offer loans to small businesses that are starting out. Other organizations in your community may also be able to offer grants to new businesses.
- 2) **Offer business development classes at local colleges and community education programs.** Whether it's a full-fledged, credited class that goes in depth on how to set up a business, or just a short workshop with tips on online marketing, local education opportunities can play a helpful role in encouraging successful business growth. One-on-one business counselor can also be a beneficial option for entrepreneurs to utilize.

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- 3) **Get organized.** Create a small business guide on your town's website listing local businesses, days/time they are open, and descriptions of their services. This is a great way to promote existing businesses to your town, as well as attract customers who may be visiting your community. Another way to get organized is to develop a small business association or chamber of commerce to help local businesses work together and promote their interests.

**CONCLUSION:**

Basically, an individual needs to learn and sharpen his or her entrepreneurial skills in order to become a successful entrepreneur. Besides, an individual also must have good personal qualities that are demanded to become a successful entrepreneur. The examples of the entrepreneur traits are full of determination, not afraid to take risk, high level of confidence, crave learning, understands failure is the part of the game, highly adaptable, good understanding of money management, expert in networking, ability to sell and promote. In fact, there are lot of entrepreneur traits that are available that can lead an individual to become a successful entrepreneur. In addition, this kind of entrepreneur traits are the main value that need to be learned, followed and applied by each individual in order to become a successful entrepreneur. These entrepreneur traits can be classified as most essential element that differ the difference between the successful entrepreneur and the ordinary entrepreneur. This is because most of the successful entrepreneurs in the world do practice and applied at least one entrepreneur that had been listed above. Thus, without any doubt, each individual or entrepreneur needs to learn and apply the selected entrepreneur traits in order to achieve success in the entrepreneurial field.

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**CLOUD COMPUTING IN BUSINESS ENVIRONMENT**

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**ABSTRACT**

*A revolution is taking place in the field of Information and Communication Technology (ICT) world; it is known as cloud computing, and also it impacts on how to run business worldwide. This paper reviews the impact on cloud computing on economic, business and environment are conducted and was organized under these subtitles: meaning of cloud computing, emergence of cloud computing, the characteristics and models of cloud computing, benefits of cloud computing to business.*

*Keywords: Cloud computing, information and communication technology, developing countries, computing.*

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**INTRODUCTION**

The revolution for Information and communication Technology remains dynamic. The impact of cloud computing on industry and end users would be difficult to overstate: many aspects of everyday life have been transformed by the omnipresence of software that runs on cloud networks. By leveraging cloud computing, startups and businesses are able to optimize costs and increase their offerings without purchasing and managing all the hardware and software. Independent developers are empowered to launch globally-available apps and online services. Researchers can share and analyze data at scales once reserved only for highly-funded projects. And internet users can quickly access software and storage to create, share, and store digital media in quantities that extend far beyond the computing capacity of their personal devices.

Despite the growing presence of cloud computing, its details remain obscure to many. What exactly is the cloud, how does one use it, and what are its benefits for businesses, developers, researchers, government, healthcare practitioners, and students? In this conceptual article, we'll provide a general overview of cloud computing, its history, delivery models, offerings, and risks.

By the end of this article, you should have an understanding of how the cloud can help support business, research, education, and community infrastructure and how to get started using the cloud for your own projects.

**OBJECTIVES OF THE PAPER**

The overall objectives of the research paper is it collates, and describes, key theoretical frameworks regarding cloud computing and its adoption by businesses in developing countries.

**CLOUD COMPUTING: HOW IT IS DEFINED**

Cloud Computing is defined as a model for enabling ubiquitous, convenient, on-demand network access to a shared pool of configurable computing resources (e.g., networks, servers, storage, applications, and services) that can be rapidly provisioned and released with minimal management effort or service provider interaction.

**THE EMERGENCE OF CLOUD COMPUTING**

Today, ICT has become a strategic asset for companies for instance, Amazon, one of the first businesses to have cloud computing is Amazon web services back in 2005. Specially, Amazon modernized its own internal data centers, which resulted in significant increases in internal efficiency. This has allowed Amazon to become one of the largest online e-marketer in the last one decade.

Thus cloud computing has the potential to dramatically change business models and the way people interact with each other.

**THE CHARACTERISTICS AND MODELS OF CLOUD COMPUTING**

National Institute of Standards and Technology (NIST) has helped crafted what it terms five "essential characteristics" of cloud computing including on-demand self-service, broad network access, resource pooling, rapid elasticity, and measured service; three service models; cloud software as a service, cloud platform as a service, and cloud infrastructure as a service; and four deployment models; private cloud, community cloud, public cloud and hybrid cloud.

**Critical Characteristics*****On-demand self-service***

A user automatically requests, as needed, for computing resources, such as network storage and server duration. The user does not have to make any human interaction with each service's provider.

***Broad Network Access***

Users have access to various capabilities over the network through standard mechanisms that promote use by heterogeneous thin or thick client platforms, such as mobile phones, laptops, and PDA's.

***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.

***Rapid Elasticity***

Capabilities can be rapidly and elastically provisioned, in some cases automatically, to quickly scale out, and rapidly released to quickly scale in. To the customer, the capabilities available for provisioning often appear to be unlimited and can be purchased in any quantity at any time.

***Measured Service***

Cloud systems automatically control and optimize resource use by leveraging a metering capability at some level of abstraction appropriate to the type of service (e.g., storage, processing, bandwidth, and active user accounts). Resource usage can be monitored, controlled, and reported, provided transparency for both the provider and consumer of the utilized service.

**BENEFITS OF CLOUD COMPUTING TO BUSINESSES IN DEVELOPING COUNTRIES**

While cloud computing may be an evolving paradigm. For developing nations especially, such benefits can be advantages in the growth of business partnerships and by direct implication of the development of respective countries.

***Access to Technological Infrastructure***

Cloud Computing allows clients to routinely access to data storage as well as delivery, allowing clients to be able to access services much more easily and quicker at potentially less cost.

***Shared Resources***

As Cloud Computing allows for shared resources, it can be said that such a capability might result in a cut in hardware as well as software costs.

***Easy Data Storage, Delivery and Accessibility***

Cloud Computing lets users have easy access to data storage as well as delivery. This provides users easier and cheaper access to services. Further, as this service is provided by a third party, users are often located nowhere near the providers.

**CONCLUSION**

The conclusion about an emerging phenomenon – fast enlarging the length and breadth of how companies contract and /or transact business on the global, economic stage.

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**IMPLEMENTATION OF ARTIFICIAL INTELLIGENCE AND ITS IMPACT ON PROFITABILITY OF BANKS - A CASE STUDY OF AXIS BANK**

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**Avin Kaushik Shah and Dr. Ramraj T. Nadar**

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**ABSTRACT**

*Banks have been amongst the first few in the adoption of the latest technologies like the Artificial Intelligence [AI]. The usage of the AI technology with Robotic Process Automation tools have not only increased customer and employee satisfaction but also the profitability for these banks. It has changed the way these banks operate and have reached them to the leading position. The Axis bank which is one of the leading private commercial banks to have implemented AI at an early stage. The present paper is aimed at finding the impact of implementation of AI on bank's profitability using trend and financial ratios. Apart from these performance indicators various statistical tools like mean, standard deviation, coefficient of Variation and t-test are used for analysis. The researcher concludes that the results of the analysis for the period 2016-2020 have revealed that although there has been more stability and consistency in the returns there has been no significant impact on the profitability of Axis bank after implementation of AI as it is still in its nascent stage.*

*Keywords: Artificial Intelligence, Profitability, ROA, ROI, Net Interest Margin, Operating Profits, Axis Bank*

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**1.0 INTRODUCTION.**

The Banking Sector is an important indicator of a sound financial and economic health of any nation. The Indian Banking and Financial industry are growing more rapidly than before due to the adoption of latest technologies to provide safer, speedy, self-service, and sustainable solutions to their customers. Amongst the wide range of technologies Artificial Intelligence [AI] tops the list. 95% of the business leaders across the globe consider AI critical for the organization's growth and development. The analysis of the profitability for any bank helps us to know whether the bank will sustain itself in the future and profitability is the performance measure of any business (Agarwal, 2019).

***"We need to make artificial intelligence in India and make artificial intelligence work for India."***

This was said by PM Shri Narendra Modi in his speech at the inauguration of Wadhvani Institute of Artificial Intelligence on February 18, 2018

**1.1 Artificial Intelligence**

John Mc Carthy, father of Artificial Intelligence, defines it as *'The science and engineering of making intelligent machines, especially intelligent computer program'*.

AI includes all the systems that can handle the tasks performed normally by humans which require skills like voice recognition, perception of vision, touch, speech, problem solving, learning and many more.

The emerging technologies in the Digital Age have a great impact on the human lives and AI is one of them. These technologies have totally changed the way people manage one another, the way business manages the operations and even the way the government manages the country. Thus, development and usage of AI specifically in the banking sector has become the key priority for the economic growth of India.

**1.2 About Axis Bank**

Axis Bank is the third largest private sector bank in India. The Vision of the Bank is *'To be the preferred financial solutions provider excelling in customer delivery through insight, empowered employees and smart use of technology'*.

The Bank offers the financial services to customer segments covering Large and Mid-Corporates, MSME, Agriculture and Retail Business. The Bank has a large footprint of 4,528 domestic branches (including extension counters) with 12,044 ATMs & 5,433 cash recyclers spread across the country as on 31st March 2020. The overseas operations of the Bank are spread over eleven international offices. Axis Bank is one of the first new generation private sector banks to have begun operations in 1994. With a balance sheet size of Rs. 9,15,165 crores as on 31st March 2020, Axis Bank has achieved consistent growth and with a 5 year CAGR (2014-15 to 2019-20) of 15% each in Total Assets, Deposits and Advances.

**1.3 The Smart Bank -Axis Bank**

The Axis bank is a Smart Bank offering wide range of banking in the digital form including the Online Banking, mobile Banking using the Axis Mobile etc., In the early 2018 bank also introduced the **Axis AHA** an

intelligent virtual banking assistant which can be used to address a range of queries about Axis Bank products and services. In 2020 it launched yet another Automated Voice Assistant 'AXAA',

The bank wanted to introduce easily adoptable and cost-efficient customer service solutions to make the customer growth faster and considering many options concluded that an AI Chatbot (a chatbot is a computer program conducting conversations with customers/users via text [or sometimes voice] that is increasingly enabled by ML and AI.) could be the best to fit in the digital era rather than the traditional alternative of hiring additional customer service personnel. The bank claims that this Chat bot facilitates the execution of fund transfers, recharge online /bill payment and much more in just a few clicks. (AI, Labor, and the Economy Case Studies Compendium - *A Case Study of Axis Bank* by The Partnership on AI [PAI]).

The Axis Bank reported that introducing AI Chatbot, as well as improvements to the existing IVR system, helped reduce its third-party customer service vendor costs by 26 percent per year, despite being in a period of customer growth of 18 percent annually. Thus, keeping in view these facts, the researcher is also made to believe that implementation of AI has led to improved profitability of Axis bank as compared to the period before its implementation.

## 2.0 REIVIEW OF LITERATURE.

**Vijai, C. (2019).** In his article which is mainly descriptive in nature, has mentioned that banking sector has been one of the first adopters of the AI. The author has discussed about the benefits and challenges of implementing AI and has concluded by stating that the application of AI has a great potential to create an efficient business process. This would mean that the efficiency in business process would lead to savings in cost and thus result in higher profitability than other technologies but has also led to increase in the cyber threats for the banking sector.

**Dubey, V. (2019)** states in his paper that with the growth of the Fintech technologies in the digital banking not only around the world but also in the Indian Banking sector has been immense. In this descriptive research article, the author concludes that majority of banks still use many of the inefficient manual processes which result in higher costs to the banks and Fintech technologies is the best measure which can reduce the costs and give a higher automation level. It can be said that due to reduction in cost the ROI and ROA may be impressive for the banks all over.

**Mallesha, C. (2019)** the author passionately believes that AI is one of the only biggest technology revolutions which has totally disrupted the banking and finance industry across the world. The research paper has determined and analysed the impact of AI in the banking sector of India based on how it has improved the effectiveness and efficiency of the systems and banking networks. The researcher in his paper using the qualitative method of data collection has concluded that the impact of the AI on Indian Banking Sector is in its nascent stage and has several challenges in its implementation. The author also summarised in the findings that AI is gradually gaining popularity as banks are using newer ways to implement them and the goal of AI to provide high quality customer satisfaction along with a considerable amount of time saving has been achieved. It is observed in the paper that the impact is measured keeping in mind the customers but does not measure any impact on the efficiency and the profitability of the banks although with higher customer satisfaction the banks will be able to improve the profitability and efficiency.

**Kaur et.al (2020)** in their research paper agree that AI has changed the face of the banking industry and has brought in new dimensions in the way the banks work as compared to the routine and manual activities and process which were performed by the bank staff physically. These processes can now be performed in smart and intelligent manner using the AI technologies. In their exploratory research using the SPSS software to analyse the quantitative data collected through questionnaire the authors have concluded that the effective use of AI has a multiplier effect on the growth and development of the banks. This implies that the AI has surely affected the profitability of the banks to a noticeable change.

The above review of literature has stated about the implementation and usage of the AI and other technologies have changed the working of the banking sector across the world and with no exception to the Indian banking sector. These technologies help the banks to perform the manual processes automatically which saves the time and cost for the banks and give an improved experience to the customers. All these studies agree that the cost reduction is possible due to the usage of AI however none of the studies have tried to measure the impact of implementation of the AI on the profitability using the statistical techniques. This research gap has led the researcher to measure the impact of the usage of AI on the profitability using the profitability ratios.

Goel and Rekhi (2013) in research paper on a comparative analysis of 3 major public and private sector banks has also made use of Return on Assets (ROA), Return on Equity (ROE), Net Interest Margin (NIM) for the comparison.

Haque (2014), in his research paper states that the financial performance of the commercial banks in terms of its ROA and NIM have remained stable rather than ROE over the period of study so the researcher also finds these measures as valid in the context of the study.

E. Kohlscheen et.al (2018) in their BIS Working Papers No 686 have also advocated. The use of these four financial ratios to measure the profitability and analysed the various determinants of the bank profitability in the emerging market economies of the world.

Thus, the researcher also makes use of these financial ratios which measure the profitability of banks viz...ROA, ROE and NIM and operating profits for determining the impact of implementation of AI. The measures are widely accepted tools to measure the profitability of banks overall.

### 3.0 OBJECTIVES OF THE STUDY

1. To compare the profitability of Axis Bank using the profitability ratios like return on assets, return on equity, net interest margin, operating profits between pre- and post-Implementation of AI.
2. To examine the significant difference in profitability of the Axis Bank between pre- and post-Implementation of AI.

### 4.0 RESEARCH METHODOLOGY.

- The study is based on secondary data collected from data base of Reserve Bank of India (RBI) in its statistical tables relating to banks in India.
- The period of study is for 4 years from **2016 to 2020**. [It will be divided into two periods P1(**2016-17 to 2017-18**)-the period prior to implementation of AI and P2(**2018-2019-20**)-the period post implementation of AI.
- The measure of profitability is undertaken using the four ratios viz. return on assets, return on equity, net interest margins and operating profits.
- Various statistical tools like mean, standard deviation, coefficient of variation is used to examine which period is maintaining higher profitability with consistency.
- For comparative analysis independent t test is performed on the MS Excel.

### 5.0 ANALYSIS OF THE DATA AND OBSERVATIONS

The profitability of the public and private sector bank is measured through return on assets, return on equity, net interest margin and operating profits ratios.

#### Return on Assets.

It is a financial ratio that shows the percentage of profit a company earns in relation to its overall resources. It shows bank's efficiency in managing its assets to generate earnings.

Return on assets (ROA) is calculated as net income divided by average total assets.

**Table-1 Return on Assets (in%)**

Year	P1-Before Implementation	Year	P2-After Implementation
2016-2017	0.65	2018-2019	0.63
2017-2018	0.04	2019-2020	0.20
Mean	0.345	Mean	0.415
SD	0.31	SD	0.22
CV	88.41		51.81

Source: Own Estimation based on RBI Data

From the above table, the P1 shows a high coefficient of variation value of 88.41 than the P2 which implies that after the implementation of AI the bank is getting stable return on their assets. The mean value of P1 is 0.345 and for P2 it is 0.454. To test whether the difference is statistically significant or not, t test has been done and the t test results are as shown in table 2.

Table -2: T-Test Results of Return on Assets

<b>t-Test: Two-Sample Assuming Unequal Variances</b>		
	<i>Return on Assets P1</i>	<i>Return on Assets P2</i>
Mean	0.345	0.415
Variance	0.18605	0.09245
Observations	2	2
Hypothesized Mean Difference	0	
Df	2	
t Stat	-0.187586007	
P(T<=t) one-tail	0.434254184	
t Critical one-tail	2.91998558	
<b>P(T&lt;=t) two-tail</b>	<b>0.868508368</b>	
t Critical two-tail	4.30265273	

Source: Own Estimations

From the above table since, the p value is more than the alpha value ( $0.00 < 0.05$ ) it indicates that there is no significant difference between the period P1 and P2 in terms of return on assets.

**Return on Equity.**

Return on equity (ROE) as a measure of financial performance The number represents the total return on equity capital and shows the firm's ability to turn equity investments into profits. To put it another way, it measures the profits made for each rupee from shareholders' equity. It shows bank's profitability from the viewpoint of shareholders. The banks' ability to attract capital depends on ROE.

ROE can be calculated by dividing net income by shareholder's equity.

Table -3 Return on equity (in %)

Year	P1-Before Implementation	Year	P2-After Implementation
2016-2017	6.67	2018-2019	2.91
2017-2018	0.46	2019-2020	2.94
Mean	3.61	Mean	4.67
SD	3.15	SD	2.52
CV	87.18	CV	54.01

Source: Own Estimation based on RBI Data

From the above the table, the P1 shows a high coefficient of variation value of 87.18 than the P2 showing 54.01 which implies that after the implementation of AI the bank is getting stable return on equity. The mean of the Return on Equity of P2 is higher which implies that the bank is more efficient in earning better returns for the shareholder's equity after the implementation of AI.

The mean value of P1 is 3.61 and for P2 it is 4.67. To test whether the difference is statistically significant or not, t test has been done and the t test results are as shown in table 4.

Table -4: T-Test Results of Return on Equity

<b>t-Test: Two-Sample Assuming Unequal Variances</b>		
	<i>Return on Equity P1</i>	<i>Return on Equity P2</i>
Mean	3.608994862	4.667220642
Variance	19.80057986	12.70927097
Observations	2	2
Hypothesized Mean Difference	0	
Df	2	
t Stat	-0.262473732	

P(T<=t) one-tail	0.408759661	
t Critical one-tail	2.91998558	
P(T<=t) two-tail	0.817519321	
t Critical two-tail	4.30265273	

Source: Own Estimations

The above table shows, the p value is more than the alpha value ( $0.00 < 0.05$ ) it indicates that there is no significant difference between the period P1 and P2 in terms of return on equity.

### Net Interest Margins

Net interest margin (NIM) is a measure of the difference between the interest income earned by a bank or other financial institution and the interest it pays out to its lenders (for example, depositors), relative to the amount of their assets that earn interest. NIM is useful to measure profitability of a banks' investing and lending activities once a specific time. An increase in NIM increases the profitability on banks.

NIM ratio is calculated by dividing the Net Interest received by a bank to its Total Assets that earn the interest.

**Table-5 Net Interest Margins in (%)**

Year	P1-Before Implementation	Year	P2-After Implementation
2016-2017	3.17	2018-2019	2.91
2017-2018	2.88	2019-2020	2.94
Mean	3.03	Mean	2.92
SD	0.15	SD	0.01
CV	4.80	CV	0.48

Source: Own Estimation based on RBI Data

From the above the table, the P1 shows a greater variation in the profits and Net Interest income with a remarkably high coefficient of variation value of 4.80 and a high SD of 0.15 than the P2 showing CV of 0.48 and SD of 0.01 which implies that after the implementation of AI the bank is getting more consistent returns and profits.

The mean value of P1 is 3.03 and for P2 it is 2.92 which are almost closer to one another. To test whether the difference is statistically significant or not, t test has been done and the t test results are as shown in table 6.

Table -6

### T-Test Results of Net Interest Margin

#### t-Test: Two-Sample Assuming Unequal Variances

	<i>Net Interest Margin P1</i>	<i>Net Interest Margin P2</i>
Mean	3.025435501	2.923408362
Variance	0.042172565	0.000397699
Observations	2	2
Hypothesized Mean Difference	0	
Df	1	
t Stat	0.699322544	
P(T<=t) one-tail	0.305744659	
t Critical one-tail	6.313751515	
P(T<=t) two-tail	0.611489319	
t Critical two-tail	12.70620474	

Source: Own Estimations

The above table shows, the p value is more than the alpha value ( $0.00 < 0.05$ ) it indicates that there is no significant difference between the period P1 and P2 in terms of net interest margin.

### Operating Profit

The operating profit is calculated by deducting operating expense from the net interest income. Operating Profit Margin (OPM) is a profitability or performance ratio that reflects the percentage of profit a company produces

from its operations, prior to subtracting taxes and interest charges. It is calculated by dividing the operating profit by total revenue and expressing as a percentage.

$$\text{OPM} = (\text{Net interest income} - \text{operating expenses}) / \text{total interest income}$$

**Table-7 Operating Profits (in %)**

Year	P1-Before Implementation	Year	P2-After Implementation
2016-2017	13.23	2018-2019	10.68
2017-2018	10.11	2019-2020	12.62
Mean	11.67	Mean	11.65
SD	1.56	SD	0.97
CV	13.38	CV	8.29

Source: Own Estimation based on RBI Data

The above table shows the mean of both the periods are almost same indicating the operating profit margins have been same before and after implementation of AI however the coefficient of variation value of P2 is lesser than that of P1 showing more stable operating profit margin in the P2. Increasing trend over the 2 years which means these banks are more efficiently operating their business to earn desirable profits.

The mean value of P1 is 11.67 and for P2 it is 11.65 which are almost closer to one another To test whether the difference is statistically significant or not, t test has been done and the t-test results are as shown in table 8.

**Table -6: T-Test Results of Operating Profits**

**t-Test: Two-Sample Assuming Unequal Variances**

	<i>Operating Profit Margin P1</i>	<i>Operating Profit Margin P2</i>
Mean	11.66922686	11.64970153
Variance	4.87599452	1.86455295
Observations	2	2
Hypothesized Mean Difference	0	
Df	2	
t Stat	0.010635694	
P(T<=t) one-tail	0.496239821	
t Critical one-tail	2.91998558	
P(T<=t) two-tail	0.992479641	
t Critical two-tail	4.30265273	

Source: Own Estimations

The above table shows, the p value is more than the alpha value ( $0.00 < 0.05$ ) it indicates that there is no significant difference between the period P1 and P2 in terms of operating profits.

## 6.0 CONCLUSIONS AND SUGGESTIONS

From the above analysis of both the period after the implementation of AI there has been consistence and stability in the profitability, however, there has been no significant difference found out in the profitability between the period before implementation and after implementation of AI. This may be due to the implementation in an early stage and the benefits and improvement in profitability may be significantly observed with few more years passing by and with effective usage of the AI tools implemented by the banks both by customers and employees. This study however is only with respect to Axis Bank it can be further studied for the whole of Private sector Banks. The measures of Profitability are used to study the impact, however there could be other parameters which would justify the improvement in measuring the profitability as well.

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## INTERNET OF THINGS: AN OVERVIEW

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## ABSTRACT

*This paper aims to provide an overview of the Internet of Things (IoT) phenomenon. This recent trend presents transformative opportunities in a variety of industries, fields, and settings; but also carries with it some risks that need to be understood and mitigated. Both the positive aspects and potential negative implications of IoT are discussed, and future developments in the space are hypothesized.*

## INTRODUCTION

The term “Internet of Things”, broadly speaking, is used to describe scenarios in which Internet connectivity and computing capability extend to a variety of objects, devices, sensors, and everyday items. This extends beyond current internet-enabled devices (computers, phones, tablets) to an increasing number of items that conventionally would not be connected to the internet: These items span the spectrum from personal devices (e.g. smart watches, “wearable” devices to monitor heart rate and other metrics during exercise) to household applications (e.g. “smart homes” where lights, air conditioners, etc. can be remotely controlled) to industrial settings (e.g. sensors in factories to monitor production). (For a more detailed list of IoT applications, please see the main body of the paper).

As can be imagined, the Internet of Things is an emerging topic of technical, social, and economic significance. A wide variety of products and objects are being combined with Internet connectivity and powerful data analytic capabilities that promise to transform the way we work, live, and play. Projections for the impact of IoT on the Internet and economy are impressive, with some anticipating as many as 100 billion connected IoT devices and a global economic impact of more than \$11 trillion by 2025.

At the same time, however, the Internet of Things raises significant challenges that could stand in the way of realizing its potential benefits. News headlines about the hacking of

Internet-connected devices, surveillance concerns, and privacy fears already have captured public attention. Technical challenges remain and new policy, legal and development challenges are emerging. This paper aims to help the reader navigate the dialogue surrounding the Internet of Things in light of the competing predictions about its promises and perils.

## OBJECTIVES

To provide a summary of the “Internet of Things” trend, along with flagship applications and key risks to be mitigated.

## RESEARCH METHODOLOGY

This paper is a literature survey of industry, corporate and academic white papers on the Internet of Things.

## MAIN PAPER

Internet of Things: Why now?

From a broad perspective, the confluence of several technology and market trends is making it possible to interconnect more and smaller devices cheaply and easily:

- **Ease of Connectivity:** Low-cost, high-speed, pervasive network connectivity, especially through ubiquitous Wi-Fi networks, makes almost everything “connectable”.
- **Computing Economics:** Driven by industry investment in research, development, and manufacturing, greater computing power is increasingly available at lower price points and lower power consumption.
- **Miniaturization:** Manufacturing advances allow cutting-edge computing and communications technology to be incorporated into very small objects. Coupled with greater computing economics, this has fueled the advancement of small and inexpensive sensor devices, which drive many IoT applications.
- **Advances in Data Analytics:** New algorithms and rapid increases in computing power, data storage, and cloud services enable the collection and analysis of vast quantities of data; these large and dynamic datasets provide new opportunities for extracting information and knowledge.
- **Cloud Computing:** Cloud computing, which leverages remote, networked computing resources to process,

manage, and store data, allows small and distributed devices to interact with powerful back-end capabilities. Internet of Things: Applications Applications of Internet of Things are exploding, with Cisco projecting that internet traffic generated by non-PC devices will rise from 40% in 2014 to 70% in 2019. Broadly, the key applications areas currently under development are:

- **Human:** Devices attached to the human body, including wearables to monitor and maintain human health and wellness; disease management, increased fitness, higher productivity (Fig. 1).



**Fig. 1:** Smart watches (such as the Apple iWatch pictured here) can make calls, send texts and emails. They can also track healthmetrics like heart rate, number of steps walked in a day, and number of calories burned.

- **Home:** Home controllers and security systems to drive “smart home” applications (Fig2).



**Fig. 2:** Smart Home devices (such as the Amazon Echo Dot pictured here) allow users to voice-control lighting, music and other electrical devices in their homes. They also support call, texting, and ordering items off the Amazon website.

- **Retail environments:** Stores, banks, restaurants, etc.—anywhere consumers consider and buy; self-checkout, in-store offers, inventory optimization
- **Offices:** Energy management and security in office buildings; improved productivity, including for mobile employees
- **Vehicles:** Vehicles including cars, trucks, ships, aircraft, and trains; condition-based maintenance, driving assistance, parking assistance (Fig 3)



**Fig. 3:** Commercially available “connected cars” can provide driving assistance (e.g. the self-driving “cruise control”) and communicate with other cars on the road to identify traffic bottlenecks in real time. They can also alert users when repair / maintenance is required.

- **Factories:** Driving operating efficiencies, optimizing equipment use and inventory through the use of sensors and big data analytics (Fig 4).



**Fig. 4:** The new Siemens car factory in Hanover, Germany is IoT-enabled. The manufacturing process is almost completely automated, with IoT equipment (sensors, predictive analytics, etc.) minimizing the need for human intervention.

#### Internet of Things: Concerns

While the Internet of Things has the potential to transform both individual and industrial settings, it also carries risks that will need to be addressed to ensure that the technology is used in ways that are secure, fair, equitable and respectful of human rights and dignity.

- **Security:**

- As we increasingly connect devices to the Internet, new opportunities to exploit potential security vulnerabilities grow. Poorly secured IoT devices could serve as entry points for cyberattack by allowing malicious individuals to re-program a device or cause it to malfunction. Poorly designed devices can expose user data to theft by leaving data streams inadequately protected. Failing or malfunctioning devices also can create security vulnerabilities. Along with potential security design deficiencies, the sheer increase in the number and nature of IoT devices could increase the opportunities of attack. When coupled with the highly interconnected nature of IoT devices, every poorly secured device that is connected online potentially affects the security and resilience of the Internet globally, not just locally.
- Thus, security should be top-of-mind for the IoT ecosystem, and certain best practices need to be followed by all the stakeholders in the system, from manufacturers (e.g. investing in design of IoT devices with secure data handling, access and transfer capabilities), users (e.g. ensuring the software on the IoT devices is regularly updated) and governments (e.g. building the right incentive structure for manufacturers).

- **Privacy:**

- As the number of “smart” devices in our homes increases, the tension between data collection practices of these devices, and consumers’ natural expectations of privacy, will come into sharper relief. Already, we have commercially available refrigerators, TVs, washing machines and the like – all of them equipped with voice recognition capabilities, meaning that they continuously monitor voice activity in a room and transfer it to the cloud for processing – where it may be shared with third parties. As can be readily imagined, this vastly amplifies the reach and feasibility of surveillance and tracking capabilities.
- To protect their privacy rights, consumer groups need to be vigilant and strong in voicing their opposition to privacy infringements. IoT manufacturers should be transparent about how and where the data collected by their devices is used; with whom this data is shared; and what steps they have taken to ensure that the data is “anonymized” (i.e. cannot be traced back to any particular user).

- **Legal and regulatory issues:**

- The explosion of IoT devices has raised a host of regulatory questions that need to be addressed by a new legal framework, one that is specific enough to capture the nuances of the issues at hand, while being general enough to adapt to the evolving IoT landscape. Some key legal / regulatory questions to consider include:

- Should there be policy frameworks around IoT security and policy (issues highlighted above)?
- Should governments prevent discrimination arising out of IoT-driven data? (For instance, in the US, consumers with less healthy lifestyles as measured by their smart watches sometimes have to pay higher health insurance premiums.)
- How do governments regulate the use of Radio Frequency (RF) spectrum with the rapid increase in IoT devices?
- How should these devices be disposed of in an environmentally optimal manner?
- How do we resolve intellectual property issues with these devices?

## **CONCLUSION**

IoT promises to usher in a revolutionary, fully interconnected “smart” world, with relationships between objects and their environment and objects and people becoming more tightly intertwined. The prospect of the Internet of Things as a ubiquitous array of devices bound to the Internet might fundamentally change how people think about what it means to be “online”.

While the potential ramifications are significant, a number of potential challenges may stand in the way of this vision—particularly in the areas of security; privacy; interoperability and standards; legal, regulatory, and rights issues; and the inclusion of emerging economies. The Internet of Things involves a complex and evolving set of technological, social, and policy considerations across a diverse set of stakeholders. The Internet of Things is happening now, and there is a need to address its challenges and maximize its benefits while reducing its risks.

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**STUDENTS PERSPECTIVE ON TRADITIONAL VS ICT BASED LEARNING IN B.SC. (I.T.)**

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**ABSTRACT**

*The teaching and learning methods have changed in the past decade. The traditional teaching and learning methods are now getting replaced by modern methods. The use of ICT has changed the whole scenario. The different methods of teaching and learning are adopted. In Higher education much emphasis is given in understanding the manner and process of providing education. Specifically, the emphasis is on using innovative teaching practices such as use of ICT, Internet, computer programs, animations, case studies on virtual environments, are being used to understand current demand. The traditional method of learning involves students taking notes in a teacher centric lecture, but a more modern view of learning is learner centric where students get to explore on their own. The effective usage of ICT and the implementation of personalized education programmes can ensure significant changes in the learning processes and lead to a better education system. Students are already interested in using technology, this creates many amazing opportunities for colleges and teachers to benefit from integrating some forms of technology in the classroom and to make teaching and learning more effective. But is this adoption suitable for every subject and every topic or some topic is best understood by good old traditional methods of teaching. It is always decided by the teachers which teaching method they will be using and learners have to accept the same where some teachers just go for traditional method because they are not well versed with the upgrowing technology whereas some just like to use ICT method because it is easy to use. This paper takes into account learners' point of view. The study aims to identify views of students pursuing graduation in B.Sc.I.T. on whether they like traditional or ICT based learning*

*Keywords – Teaching, learning, students, traditional, ICT*

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**INTRODUCTION**

When we talk about teaching - learning methods then our education system is divided in three groups; one group is in the favor of the traditional teaching methods, second group favors modern teaching methods and third group supports the combination of both for effective teaching. Teaching and learning are the most important part of education. Various functions of teaching and learning are to impart knowledge, develop understanding of the topic and skill development. Teaching and learning is the way of communication between the teacher and student.

In most of the educational institutes of India traditional teaching methods are used. In the traditional teaching method, teachers explain the concept to the students with the help of blackboard. Every topic, every diagram regarding the topic is written on the blackboard and students take notes from the blackboard. After the lecture is over students revise their notes and try to memorize them. Occasionally other methods such as demonstration, group discussion, class test and assignments are used. The main objective of traditional teaching is to pass the examination. Traditional teaching methods have their own pros and cons.

From the last 10 years the use of technology in the educational institutions has increased swiftly. Nowadays lots of ICT methods are used for improving the teaching in the classroom. Some of the popular technologies used in modern teaching are

- Use of computers in network with wi-fi connection- This is the most commonly used tool ICT based teaching methods. Teacher explains the concept on his/her computer which is connected to the student's computer through network. This type of teaching is seen mostly in the higher education institutions with good infrastructure.
- Use of projector in the classroom- Use of projector for lecture delivery has become very common nowadays. Teacher prepares the power point slides and which are displayed on the LCD screen with the help of a projector.
- Use of interactive whiteboards - Whiteboards are very interactive and provides the touch control of the computer applications. On whiteboard a teacher or student can draw, write or manipulate images so providing a very interactive and interesting platform. The main advantage of whiteboards is that it can show anything on it which can be seen on the

- The other less popular ICT methods are- Use of digital games, Use of blogs classrooms, use of microphones, flipped classroom etc.

## RESEARCH METHODOLOGY

### ➤ Objectives

- To understand various traditional methods adopted by teachers to teach various subjects included in all three years of Graduation in B.Sc.I.T
- To understand various ICT methods adopted by teachers to teach various subjects included in all three years of Graduation in B.Sc.I.T
- To understand student's perspective in adoption of traditional or ICT based methods to study various subjects
- To find satisfaction level of students while learning from traditional methods or ICT based techniques

### ➤ Research Problem – Difference between traditional and ICT based teaching and learning

### ➤ Problem Statement – Understanding the student's point of view for learning through traditional or ICT based teaching methods

### ➤ Unit of Analysis – Students pursuing graduation in B.Sc.I.T.

### ➤ Characteristic of Interest – opportunities and challenges in learning from traditional and ICT based teaching learning – methods

### ➤ Methodological Approach - In this report we used the quantitative approach by conducted Survey.

### ➤ Sources of Data

- This report is based on primary data.
- Primary source of data used is the questionnaire.
- Also secondary sources of data have been used like the references of various Google scholar articles and some articles from newspaper.

### ➤ Tools used for Data Analysis - Data collected were analytical, tabulated and percentages were calculated by using pie charts and graphs for the purpose of easy understanding.

### ➤ Sample method- Convenient sampling method

### ➤ Sampling units- Students pursuing Graduation in B.Sc.I.T. under Mumbai University

### ➤ Sample size- 50-60

### ➤ Research instruments- Structured Questionnaire is used as an instrument, to collect valid primary data.

## Research Analysis

- 1) Different traditional methods adopted for teaching various subjects of B.Sc.I.T.

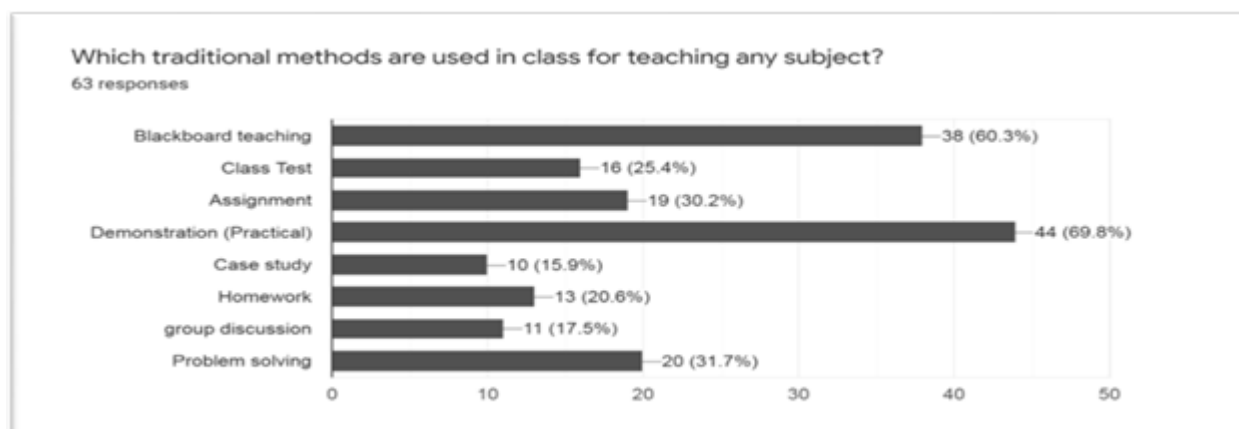


Figure I

Among various traditional methods used demonstration i.e. explaining topics practically is used maximum as many subjects of B.Sc.IT are practical oriented. Next highest is blackboard teaching. Class test, assignment and problem-solving methods standing equally.

2) Different ICT methods adopted for teaching various subjects of B.Sc.I.T.

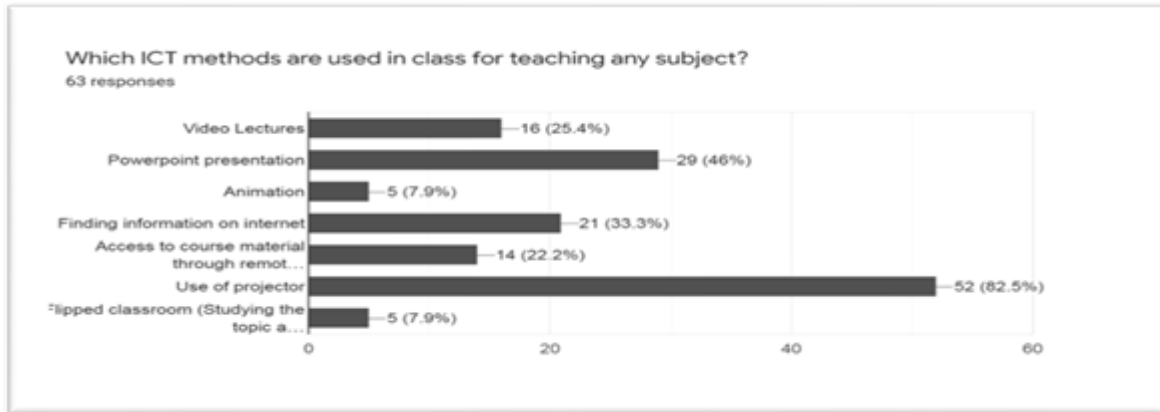


Figure II

Among various ICT methods used 'use of projector' is highest with next highest being PowerPoint presentation.

3) Students perspective in learning theory subjects

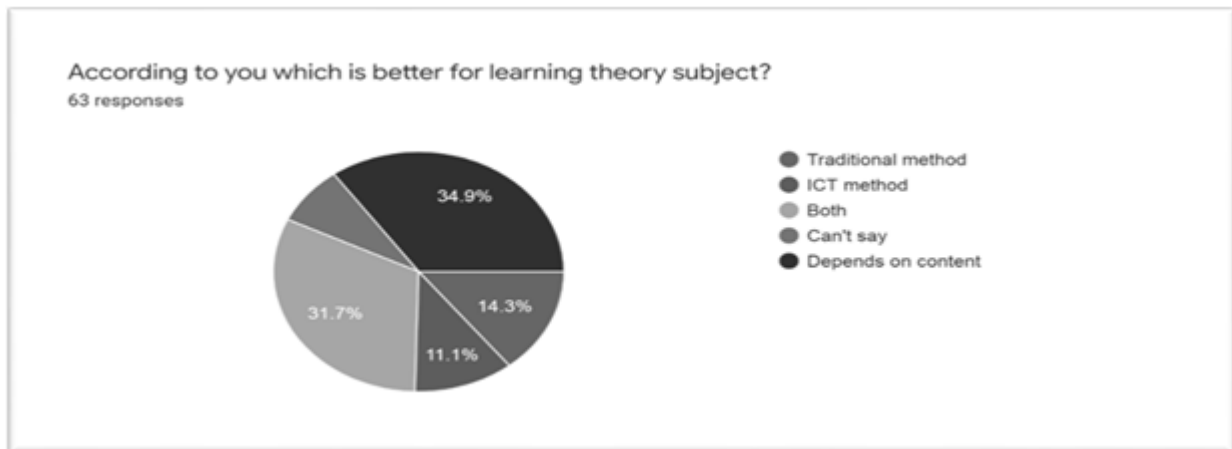


Figure III

According to 34.9% students for theory topic the method of teaching should be based on the content of the topic

4) Students perspective in learning programming subjects

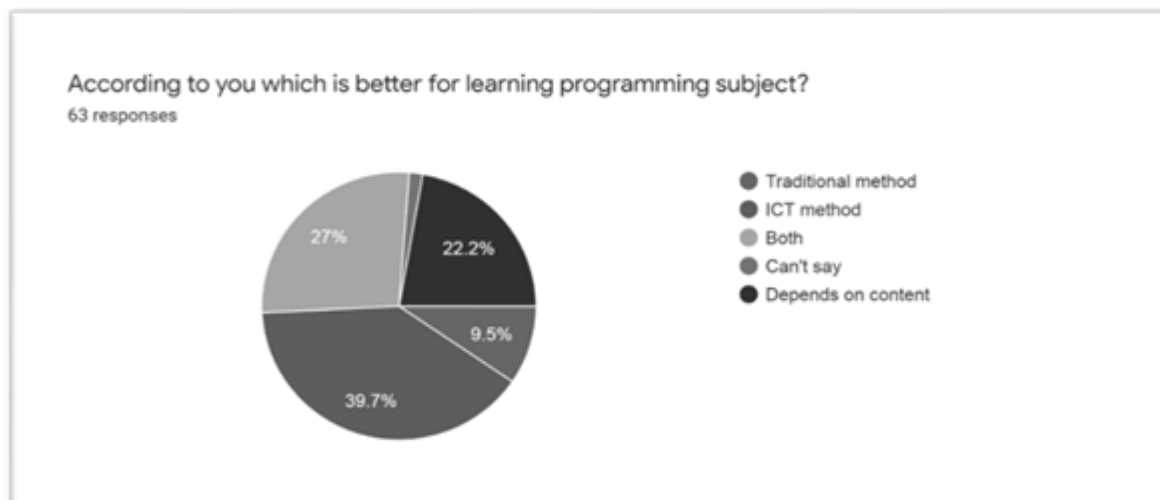


Figure IV

39.7% students prefer the use of ICT methods for learning programming subjects and 27% prefer both traditional and ICT methods

5) Students perspective in learning mathematics subject

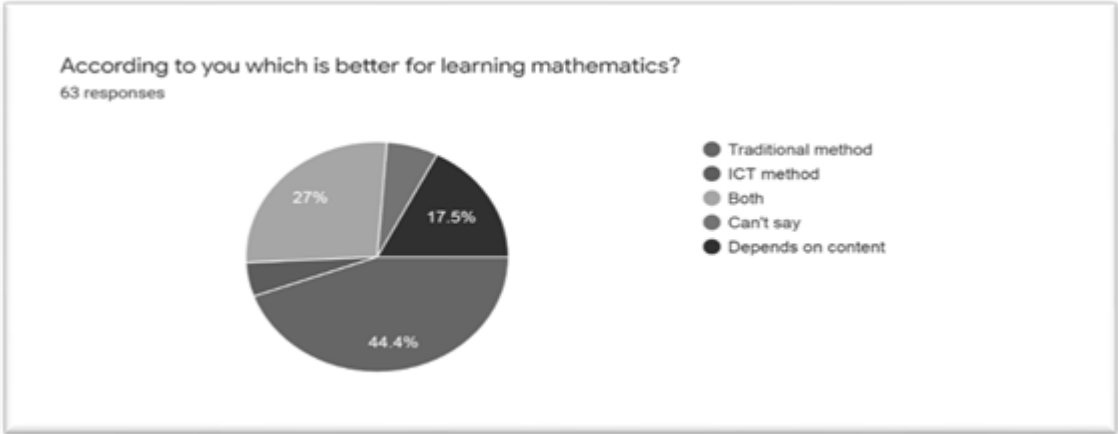


Figure V

For mathematics subjects 44.4% students prefer traditional method as compared to ICT

6) Student’s perspective in learning overall subjects of B.Sc.I.T.

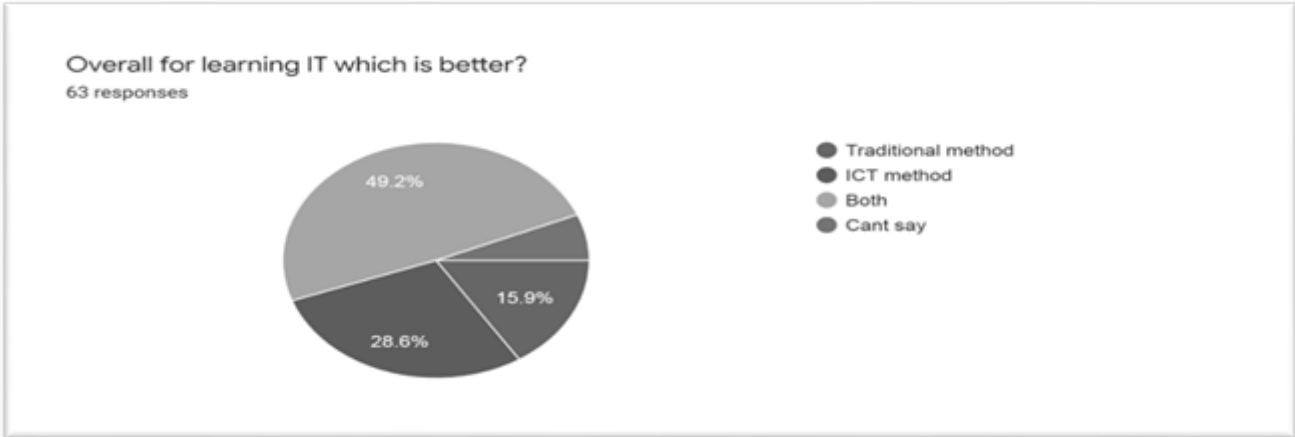


Figure VI

49.2% students prefer both Traditional and ICT methods for learning overall subject in B.Sc.I.T.

7) Students satisfaction when learning through ICT method

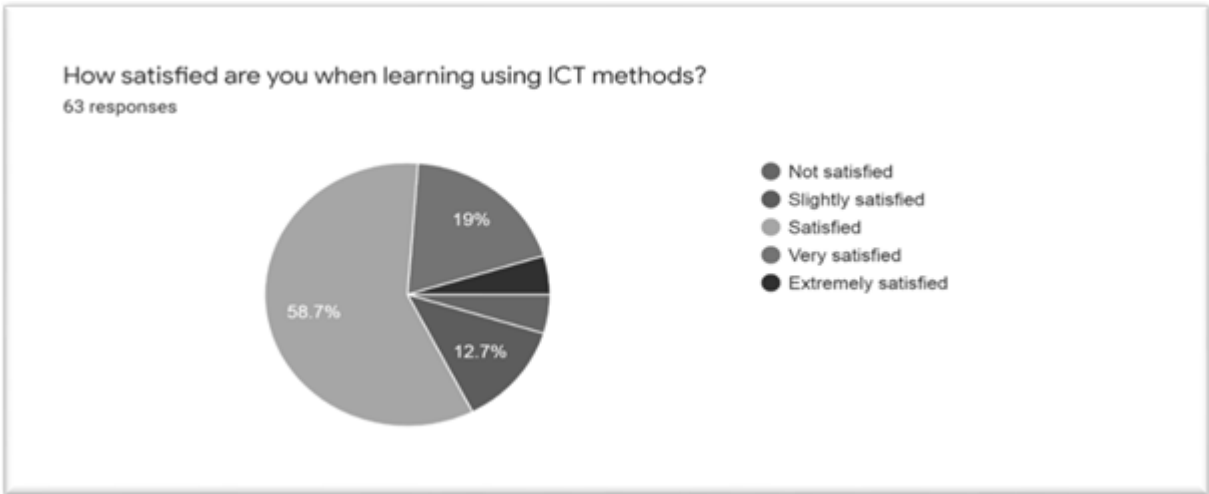
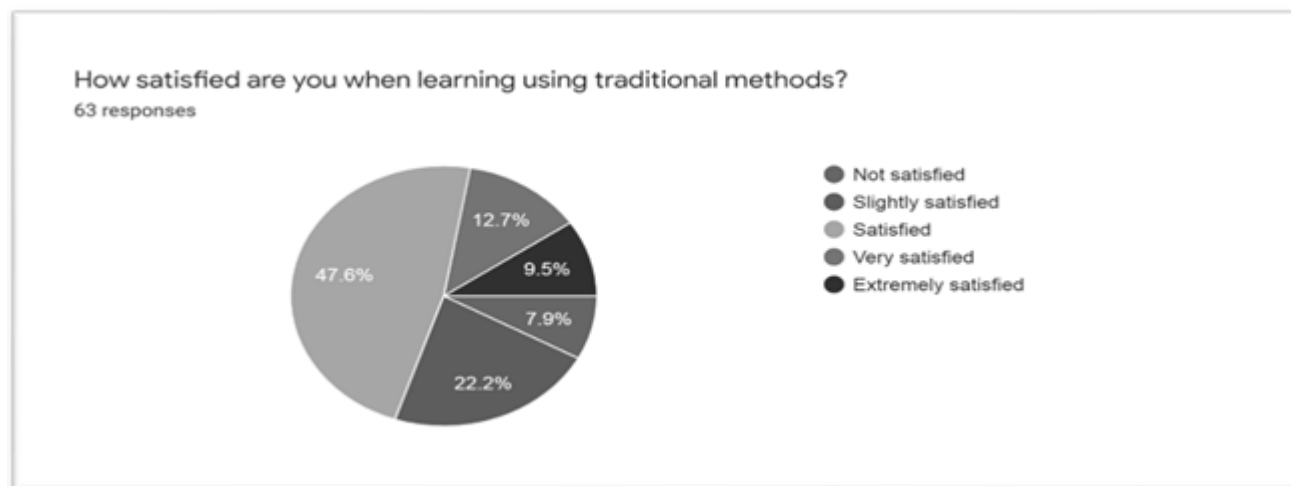


Figure VII

58.7% students are satisfied when learning through ICT based method with only 3 out of 63 being unsatisfied

8) Students satisfaction when learning through traditional methods



**Figure VIII**

47.6% students are satisfied when learning through traditional methods with only 5 being unsatisfied.

## FINDINGS

1. Various traditional methods used for teaching all subjects in B.Sc.I.T. are blackboard teaching, class test, assignment, demonstration, homework, group discussion and problem solving. Among all this demonstration i.e. practical method is used maximum as many subjects are practical oriented.
2. Various ICT methods used for teaching all subjects in B.Sc.I.T. are video lectures, powerpoint presentation, animation, finding information on internet, access to course material through remote device, using projector. Among all this projector is used maximum by the teachers to deliver their lecture.
3. According to 34.9% students for learning theory topic the method of teaching should be based on the content of the topic
4. 39.7% students prefer the use of ICT methods for learning programming subjects and 27% prefer both traditional and ICT methods
5. For mathematics subjects 44.4% students prefer traditional method as compared to ICT
6. 58.7% students are satisfied when learning through ICT based method with only 3 out of 63 being unsatisfied
7. 58.7% students are satisfied when learning through ICT based method with only 3 out of 63 being unsatisfied
8. 47.6% students are satisfied when learning through traditional methods with only 5 being unsatisfied.

## CONCLUSION

A good education system is the criterion for the development of any nation. It is well-known fact that our education system still depends on traditional methods and there is a need to combine the traditional teaching with modern teaching aids for a better and advanced education system. There is a difference in the opinion of the people regarding the use of traditional teaching methods and ICT methods. Some believe that traditional teaching methods are best for imparting the education in the students while some are in favor of using ICT methods for quality education. The same goes with students as well. Number shows that maximum students prefer ICT for practical based subjects and traditional methods for mathematics subject. Whereas maximum agree that combination of both should be used to teach theory. Even their satisfaction levels are similar when taught using traditional method or ICT based method. All in all important is to maintain balance and quality of teaching. Both traditional and modern teaching methods should be used simultaneously for the betterment of education such as

- Blackboard and projectors can be used simultaneously in a classroom; for teaching complex mathematical equations teacher can use blackboard while theoretical subjects can be taught on a projector with the help of slides.

- Practical subjects can also be taught best with the help of combination of both traditional and ICT based methods. Teacher can explain the theory on a blackboard and for better understanding of the procedure of the experiment videos or animations can be used.
- Another aspect through which we can combine both traditional and modern teaching methods for better teaching. Teachers can teach the subject first through traditional methods and then can take the help of modern teaching methods for revising the subject. Main motives of the education should be to build the overall character and to bring the all-round development of the students. There is no point in discussing that which teaching method is better than the other? Instead we should concentrate on providing the best education system to the students as it's the students who will run the nation in future. We can develop a better education system only if we will be able to combine both the traditional and modern teaching methods

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**THE CHALLENGES IN VIRTUAL EDUCATION AMONG SCHOOL, COLLEGE AND UNIVERSITY STUDENTS IN THE COVID-19 INDUCED CRISIS – WITH REFERENCE TO MUMBAI CITY**

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**ABSTRACT**

*Nowadays the education system has dramatically changed due to the COVID-19 induced pandemic crisis. The school and college students all over the world are facing serious challenges due to this COVID-19 pandemic. Due to the COVID-19 pandemic, the regular academic and research activities of students are distorted largely. The learning habits of the students might vary during holidays when compared with the regular academic year. From the literature survey, a questionnaire with 22 key questions was prepared using 'Google Form' to evaluate the challenges in e-Learning among various age groups of students studying in various schools, colleges, or Universities during this lockdown period due to the COVID-19 crisis in Mumbai. The questionnaire was shared among the students with the help of their school academic heads and through social networks. The design of the questionnaire was made simple such that the students can respond by utilizing their smart gadgets or a personal computer from their residing places. A total of 378 students have participated in this survey, among them 42.2% are male students and 57.8% are female students. This survey is further classified based on their age group, gender, education level and type of institution. The important aim of this paper was to provide a summary of current trends in the development of e-learning. Unquestionably, e-learning will continue to grow in the educational institutions. In anticipation of this growth, the governments, business companies and professional associations can start focusing on applications and the effective and efficient implementation of e-learning.*

*Keywords: eLearning, COVID-19, Virtual Education, Perception and Challenges*

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**INTRODUCTION**

Virtual education refers to instruction in a learning environment where teacher and student are separated by time or space, or both, and the teacher provides course content through course management applications, multimedia resources, the Internet, videoconferencing, etc.

As of now, the novel COVID-19 induced pandemic made the student's community around the world to remain in their residences for several months. This pandemic crisis made several governments and educational sectors around the world to adopt distance learning technology known as Electronic Learning (e-Learning). The progression of evaluation from the traditional classroom-based learning to E-Learning has been developing over the decades. The introduction of e-Learning is the latest technological development that has transformed education.

**STATEMENT OF THE PROBLEM**

The everyday life of the common people around the world is highly distorted by the novel pandemic 'COVID-19' caused by the Corona virus and the students around the world are not exempted from this. Education is a gradual process of acquiring critical thinking, capabilities and expertise which helps the individual to attain personal goals and work productively for the betterment of mankind and it is the fundamental right of every human which gives knowledge about the world and great ideas for sustaining life. The educational wealth is the one, which can make a person proud and admired. Morality, character, integrity and justice are all present in an educated person. Nowadays the education system has dramatically changed due to the COVID-19 induced pandemic crisis. The school and college students all over the world are facing serious challenges due to this COVID-19 pandemic. Due to the COVID-19 pandemic, the regular academic and research activities of students are distorted largely. The learning habits of the students might vary during holidays when compared with the regular academic year.

**RESEARCH QUESTIONS**

The eLearning is an educational remedy in this lockdown period due to the COVID-19 crisis raises the following questions:

- (i) What is the perceptive level of students about eLearning?
- (ii) What are the challenges faced by the students in eLearning during the lockdown period?

**OBJECTIVES OF THE STUDY**

The researcher has formed the objectives on the basis of the above research questions.

- (i) To know the perceptive level about e-learning among school, college and university students in Mumbai
- (ii) To identify the challenges faced by the school, college and university students in e-learning in Mumbai

### HYPOTHESIS

The following hypotheses were framed for the study.

$H_{01}$  : The level of perception about eLearning is independent of age group of students

$H_{02}$  : There is no significant difference in the challenges faced by the students in eLearning during the lockdown period across different age group of students

### METHODOLOGY

From the literature survey, a questionnaire with 22 key questions was prepared using 'Google Form' to evaluate the challenges in e-Learning among various age groups of students studying in various schools, colleges, or Universities during this lockdown period due to the COVID-19 crisis in Mumbai. The questionnaire was shared among the students with the help of their school academic heads and through social networks. The design of the questionnaire was made simple such that the students can respond by utilizing their smart gadgets or a personal computer from their residing places.

### DATA COLLECTION

A total of 378 students have participated in this survey, among them 42.2% are male students and 57.8% are female students. This survey is further classified based on their age group, gender, education level and type of institution. The challenges in e-Learning among the students were accessed by twenty two questions classified as items. Each item was created with the key challenges faced by the students in e-Learning. The questionnaire was made simple to answer such that the responses were 'Strongly agree', 'Agree', 'partly agree', 'disagree' and 'Strongly disagree'.

### DATA ANALYSIS AND INTERPRETATION

#### Perceptive level of students about eLearning

In order to study the level of perception about eLearning among the school, college and university students, the sample is grouped into three categories, namely low level, medium level and high level. The level of perception about eLearning (total) is examined by the score value calculated for 6 statements by adopting the scaling technique. The score values greater than or equal to Mean + S.D and score values less than or equal to Mean - S.D are classified respectively as high level and low level of sources of inspiration, while the score values in between (Mean + S.D) and (Mean - S.D) have been classified as medium level of sources of inspiration. The scores are given below.

**Table 1: Perception about eLearning Scores**

Category	Low Level (Mean – Standard Deviation)	High Level (Mean + Standard Deviation)
Perception about eLearning Scores (Total)	25.40-2.90 = 22.5	25.90+2.9 = 28.30

To analyse the perception about eLearning, it is categorized into low, medium and high level scores. The perception about eLearning which falls below 22.5 is said to be in the low level and above that score is said to be high level. Based on the scores, the levels of perception about eLearning can be measured.

### ASSOCIATION BETWEEN LEVEL OF PERCEPTION ABOUT E-LEARNING AND AGE GROUP OF STUDENTS

Chi-square test is used to find the significance of age group of students on the level of perception about eLearning. The null hypothesis framed was "The level of perception about eLearning is independent of age group of students". The result of chi-square test for association between age group of students and level of perception about eLearning is given in Table 2.

**Table 2: Association between level of perception about eLearning and age group of students**

Age group	Level of Perception about eLearning			
	Low	Medium	High	Total
Below 15 years	7	14	8	29
15-18 years	44	74	50	168
19-21 years	17	86	36	139

Above 21 years	8	21	13	42
<b>Total</b>	<b>76</b>	<b>195</b>	<b>108</b>	<b>378</b>
<b>Chi-square value</b>	<b>12.942</b>			

Table Value with  $df = (4-1) \times (3-1) = 6$  is 12.60 at 0.05 level of significance

The above table shows that the calculated value of Chi-square is greater than the Table value at 5% level of significance. Hence, the null hypothesis, "The level of perception about eLearning is independent of age group of students" is rejected. It is concluded that there is an association between the levels of perception about eLearning and their age group.

#### Age-wise ANOVA regarding the influence on score of challenges faced by the students in eLearning during the lockdown period

The analysis of variance (ANOVA) on the basis of age group of students and score for challenges faced by the students in eLearning during the lockdown period is shown below in Table. It has been documented that the mean score is statistically significant different between challenges faced by the students in eLearning during the lockdown period and age group of students as  $p < 0.05$  at 5% level of significance. The test of difference has been documented on a parametric scale, using the Analysis of Variance (ANOVA), which has been found to be significant ( $F = 8.350$ ,  $p = 0.000 < 0.05$ ). The mean score is shown to be the highest for the students who are in the age group of above 21 years and the lowest for those who are in the age group of below 15 years.

**Table 3: Analysis of variance (ANOVA) on the basis of age group of students and score for challenges faced by the students in eLearning during the lockdown period**

Age group	N (Valid)	Mean	S.D	Lower Bound	Upper Bound	F [Significance Level]
Below 15 years	82	93.27	12.59	90.53	96.00	8.350 (0.000)
15-18 years	125	100.96	15.17	98.09	103.50	
19-21 years	92	93.65	18.57	89.19	98.11	
Above 21 years	79	105.41	10.90	101.26	109.56	

Source: Computed Data

There is significant statistical difference between age group of students and challenges faced by the students in eLearning during the lockdown period as determined by one way ANOVA ( $F = 8.350$ ,  $p = 0.000 < 0.05$ ). Thus, post-hoc analysis was applied as shown in Table. Post Hoc test revealed that the challenges faced by the students in eLearning during the lockdown period is statistically significant for the students who are in the age group of above 21 years compared to all other age groups i.e. below 15 years, 15-18 years and 19-21 years. Students who are in the age group of above 21 years showed statistically significant difference from other age-groups as  $p < 0.05$  in each category. Hence, the null hypothesis ( $H_0$ ) is not accepted and it is proven that there is significant difference in the challenges faced by the students in eLearning during the lockdown period across different age group of students.

**Table 4: Post-hoc analysis of age group of students and Score for challenges faced by the students in eLearning during the lockdown period (The mean difference is significant at 0.05 level)**

(I) Age group	(J) Age group	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Below 15 years	15-18 years	-7.68983*	2.17756	.003	-13.3168	-2.0628
	19-21 years	-.37836	2.44167	.999	-6.6879	5.9311
	Above 21 years	-12.13998*	3.23672	.001	-20.5040	-3.7760
15-18 years	Below 15 years	7.68983*	2.17756	.003	2.0628	13.3168
	19-21 years	7.31146*	2.30787	.009	1.3477	13.2752
	Above 21 years	-4.45016	3.13702	.489	-12.5565	3.6562
19-21 years	Below 15 years	.37836	2.44167	.999	-5.9311	6.6879
	15-18 years	-7.31146*	2.30787	.009	-13.2752	-1.3477
	Above 21 years	-11.76162*	3.32579	.003	-20.3558	-3.1675

Above 21 years	Below 15 years	12.13998*	3.23672	.001	3.7760	20.5040
	15-18 years	4.45016	3.13702	.489	-3.6562	12.5565
	19-21 years	11.76162*	3.32579	.003	3.1675	20.3558
*. The mean difference is significant at the 0.05 level.						

### SUGGESTIONS

- ✓ From this study, it is revealed that parents are also not ready to support this. To improve the quality of virtual education the government must ensure the availability of computers and reliable network for all students.
- ✓ The education sectors create an official online virtual platform for e-learning for students to freely access all the information they need beforehand. A special network should be provided to avoid network traffic.
- ✓ Counseling should be given to the teachers and parents to motivate the students to involve in the eLearning classes and guide the students for effective learning.
- ✓ It is important to assure the eye protection of the students in e-Learning and limited study time should be given.

### CONCLUSION

The important aim of this paper was to provide a summary of current trends in the development of e-learning. Unquestionably, e-learning will continue to grow in the educational institutions. In anticipation of this growth, the governments, business companies and professional associations can start focusing on applications and the effective and efficient implementation of e-learning. By recognizing that e-learning truly is a methodology, one can experience the greatest benefits that e-learning has to offer now and in the future. In the end, the fact remains that, with respect to e-learning, poor quality procurement practices (in all sectors but especially in the public sector) are a barrier to growth and adoption. So it is necessary to make a thorough evaluation when it comes to choose e-learning software for education in order to improve the knowledge of learners, the learning outcomes, the performance outcomes, the business and policy impact and in order to value the money spent.

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**CRIME IN MEGA CITIES SPECIAL REFERENCE TO LUCKNOW CITY****Kaneeze Ibrahim K. A. R. Sayed**

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**ABSTRACT**

*Social problems never been new to the society since the time immemorial, a glance of the society right from the ancient to the modern in different spatial context clearly reveals the history of the problems faced by different societies in spatio-temporal context. Lucknow city which is known for its rich cultural heritage that is evident in the architectural wonders like Imambara, Rumi darwaza etc spread across the city. It was once world famous for its nazakat, nafasat, and its Ganga Jamuni Tahzeeb. But the plague of social pollution has engulfed its sophistication and delicacy. As the metropolis in India and abroad is degenerating and degrading in terms of the social and ethical values, Lucknow city is not an exception. Present paper attempt to make analyze the Crime rate in Lucknow city. Methodology opted for the study is using secondary sources of data. Collected data were analyzed through using simple statistical technique and analyzed data were depicted through charts, graphs and map. Analysis of crime in Lucknow city is subject to availability of data.*

**INTRODUCTION**

The present social spectrum of the Lucknow city is highly vulnerable. As it seems to provide the better employment opportunity for the surrounding areas, hence it is the major centre of influx of migrant from different parts of Uttar Pradesh. Here we will discuss the problem which occur in the city like slums settlements, crime, communal riots, Prostitution, suicide cases, juvenile delinquency, women harassment. Here will discuss about the crime rate in mega cities Luckow city chosen as with special reference. The alarming increase in the crime graph of all types, corruption, social taboos, etc. has ruptured the whole social fabric of Lucknow city. For a better understanding let us take some big social problems which are responsible for social pollution.

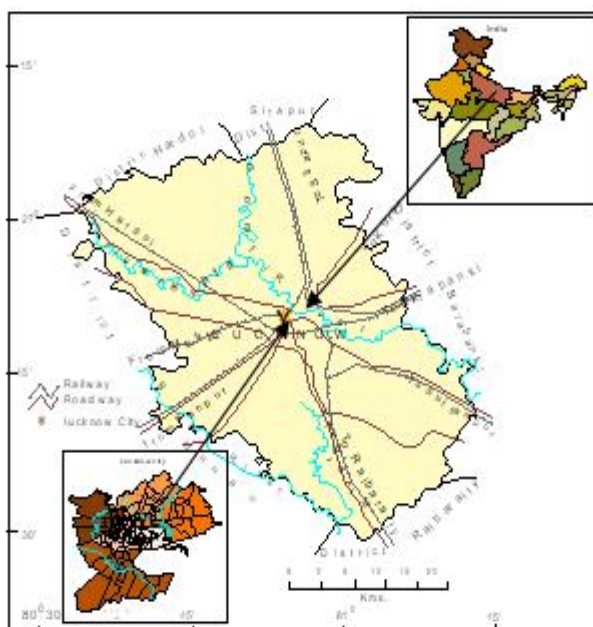
**OBJECTIVE**

The main objectives of the present paper are

1. To examine the trend of Rate of crime in mega cities.
2. To assess the rate of crime in Lucknow city.
3. To assess the rate of different type of crime in Lucknow city.

**DATA BASE AND METHODOLOGY**

Data and methodology opted for the present paper is based on Secondary sources of data. Data has been taken from NCRB from 2004 to 2018. Collected has been analyzed through suitable statistical technique and analyzed data were depicted through charts, graphs and map.



## STUDY AREA

Lucknow city formed the central part of the province of Oudh and capital of Uttar Pradesh occupies central position of the district. it is situated along the side of the river Gomti- a tributary of the river Ganga. It lies in between 26°30' to 27° 10' North latitude an 80°30' to 81° 13' East longitude. It covers an area of 2544 sq. km and city is 310.104 sq km

## DISCUSSION

Crime is an act in violation of the law and the criminal in a person who does an act in violation of the law<sup>1</sup>. Crimes fundamentally a violation conduct norms which contains sanctions, no matter where found in the criminal law of a modern state or merely in the working rules of special social groups<sup>2</sup> it prohibited by the criminal code and the criminal procedure code (Cr. P.C.) divides all the crimes are categorized into two categories<sup>3</sup>.

**Cognizable:** The Cr. P.C. defines cognizable case as a criminal stand within an office of the police, may arrest without warrant in this case, the police has a direct responsibility to take immediate action on receipt of a complaint or credible information. Cognizable crimes are broadly categories as those falling either under Indian penal code (IPC) or under the special and local law (SLL)<sup>4</sup>.

**Non Cognizable crimes:** Non cognizable crimes are defined as for which a police officer has no authority to arrest without a warrant. These crimes are also categorized as those falling either under IPC or SLL<sup>5</sup>.

Violent crime affects the life and the safety of the people. Such crimes induce a sense of insecurity and fear in the community.<sup>5</sup>

Due to unchecked migration, illegal settlements, diverse, socio-cultural disparities, uneven distribution, population explosion, is changing life style etc. Many cities are facing many criminal activities. Organized groups, Gangsters, professional criminals and even youth and juvenile find crime as a short cut for a lavish life in mega cities. Around 31.80% of population lives in urban areas as per 2011 census. Present analysis show the comparative study of the crime rate during the year 2004 and 2018. In 2018 there Table (1) Crime rate in cities was generally higher than the 2004.

**Table: 1 Crime in Mega Cities 2004-2008**

Sr. no	Cities	2004	2018	Percentage change
1	Ahmedabad	388.4	826.3	113
2	Bengaluru	501.6	470.4	-6
3	Chennai	193.6	977.8	405
4	Coimbatore	264.9	694.4	162
5	Delhi	380.9	1456.7	282
6	Hyderabad	340.9	206.6	-39
7	Indore	728.2	955.2	31
8	Jaipur	569	1065.3	87
9	Kanpur	168.3	397.9	136
10	Kochi	498.6	2581.1	418
11	Kolkata	81.1	152.2	71
12	Lucknow	277.9	793.3	515
13	Mumbai	179.9	309.9	130
14	Nagpur	401.2	688.6	287
15	Patna	445	858.4	412
16	Surat	147	1317	796

Source: NCRB 2004-2018

The higher no of crimes are found in cities like Indore, Jaipur, Bangalore, Kochi and Patna have total IPC and SLL 728.2, 569, 501.6, 498 and 401.6 respectively in 2004. Lower no of crime are found in Kolkata, Surat, Kanpur, Mumbai and Chennai have total IPC and SLL like 81.1, 147, 168.3, 179.9 and 193.6 Respectively in 2004.

Table 1 and figure 1 reveals that the rate of crime has increase in all most all the mega cities except Bangalore and Hyderabad. In between 2004 and 2018 Surat has experience highest percentage of change in Crime. Even in 2004 Surat was come under the lower category of crime.

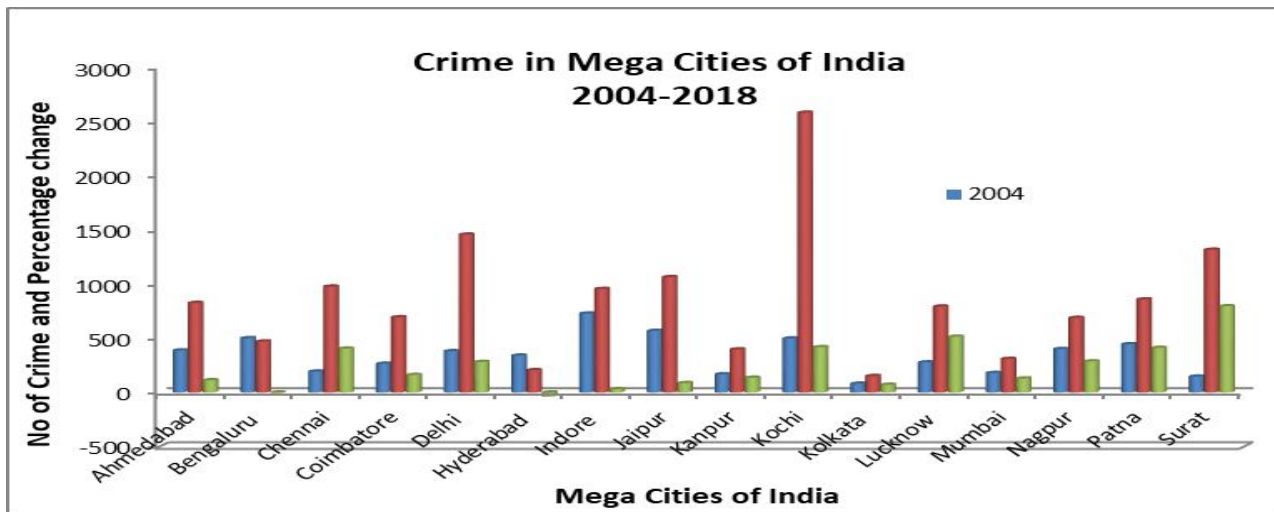


Fig.1

The Higher no of IPC and SLL crimes are found in cities like Kochi followed by Delhi, Surat, Jaipur and Indore in 2018. Lower no of IPC and SLL crime are found in Kolkata Followed by Hyderabad, Mumbai and Kanpur in 2018. Table 1 reveals that the Percentage of crime rate has increases in almost all of the mega cities but highest percentage has changed in Surat followed Lucknow, Kochi, Chennai and Patna. Table 1 and figure 1 exhibit that Lucknow city has increased the 515 percent of crime rate from 2004 to 2018. Table 2 shows that the increasing trend of crime in Lucknow city is the point of consideration.

**Table: 2 Trend of crime in Lucknow city**

Years	2004	2005	2007	2008	2009	2010	2012	2013	2014	2015	2016	2017	2018
Total IPC and SSL Crime	277.9	271.2	373.5	517.6	462.4	455	402.2	402.2	450	410.5	650.7	753	793.3

Source: NCRB 2004-2018

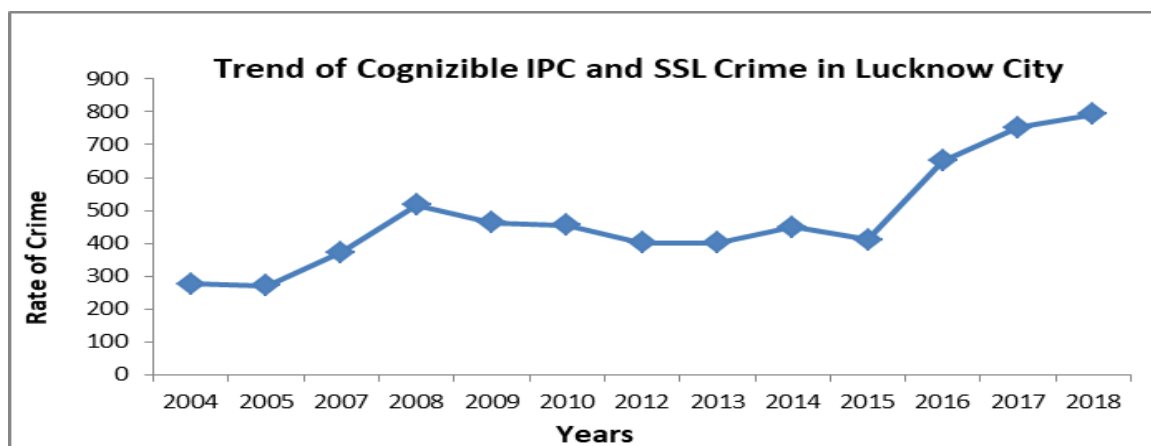


Fig.2

The details of crime in Lucknow city under different heads like Crime against Women, Economic Crime, Property Crime and Violent Crime from 2010 to 2018 are present in table3, 4, 5 and 6.

**Table: 3 Crime Against Women**

Crime	2010	2012	2014	2016	2018
Cruelty by husband	43.8	32.7	40.6	64.7	87.7
Dowry deaths	3.6	1.1	2.2	3	1.4
Rape	3.8	1.7	3.8	7.4	8.6
Sexual harassment	7	8.1	16.7	23.1	29.9

Source: NCRB 2010 – 2018

It is clearly exhibited by the table 3 that the Crime against women are found increasing trend. All most all the crime which are taken into consideration in this study are found increasing trend. Figure 3 also shows that the highest crimes against women are Cruelty by Husband and his relatives and Sexual Harassment. In 2010 Cruelty by Husband and his relatives was 43.8 and it is continuously increasing up to 87.7 % in 2018. Same trend can be seen with the case of sexual harassment, in 2010 it was only 7 percent but in 2018 it increases up to 29 % percent about 4 time increases.

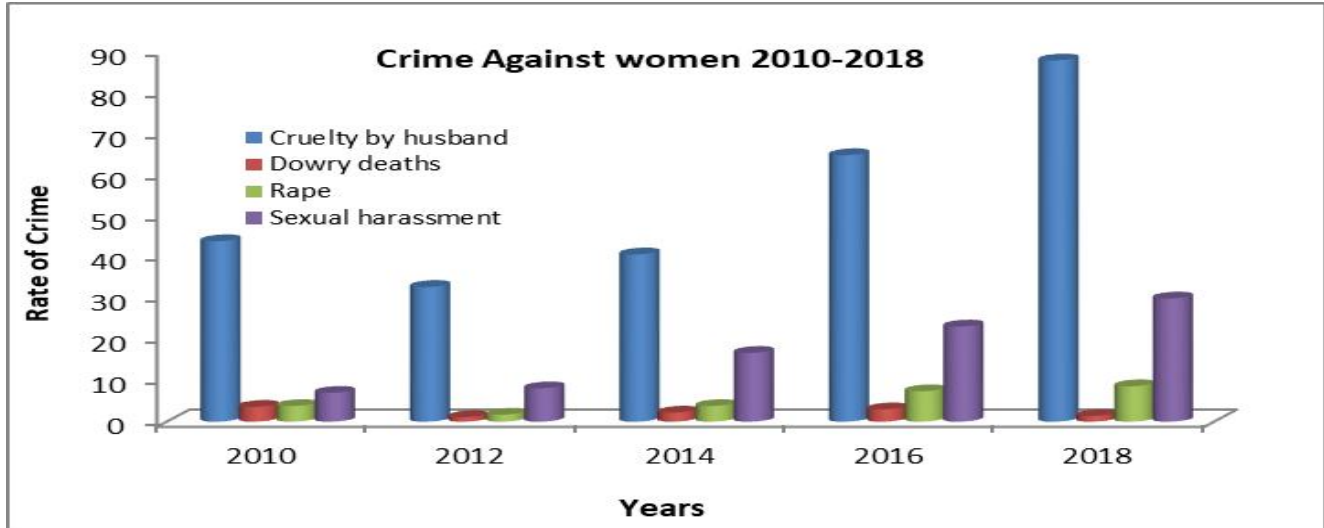


Fig.3

Table: 4 Economic Crime					
Crime	2010	2012	2014	2016	2018
Cheating	33.1	28.9	29	39.7	58.1
Counterfeiting	2.2	0.2	0.2	0.1	0.4
Criminal breach of trust	19.1	13	15.8	14.8	27.8

Source: NCRB 2010-2018

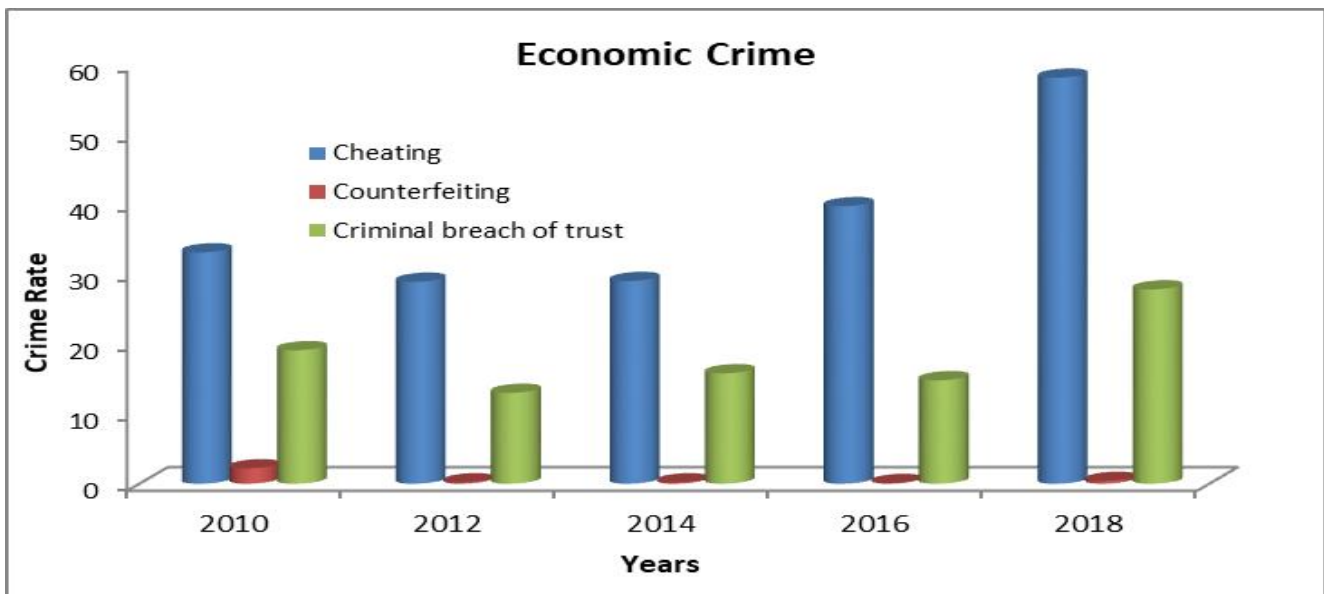


Fig.4

It clearly exhibited by the table 4 that the cases related with Economic crime has increases like cheating, counterfeiting and criminal breach of trust. It seems that of highest rate of crime under the economic crime has increase cheating and criminal breach of trust. Both the crime are found increasing trend (figure 4)

Table 5 shows that the crime related with property also have increased from 2010 to 2018. Crime like auto theft, Dacoity, other theft and robbery have found increasing trend. During the course of study auto theft, other theft and robbery are found highest increasing trend (figure 5).

Table: 5 Property Crime					
Crime	2010	2012	2014	2016	2018
Auto theft	75	54.7	70.2	116.8	89.7
Dacoity	0.5	0.2	0	0.4	0.1
Other theft	39.3	23.4	31	43.2	44.6
Robbery	3.8	1.5	2.5	2.9	17.6

Source:2010-2018

In 2010 auto theft was 75 and it is increasing till 2016 up to 116.8 percent and decreased in 2018 by 89.7 percent. But the case of other theft and robbery continuously increase.

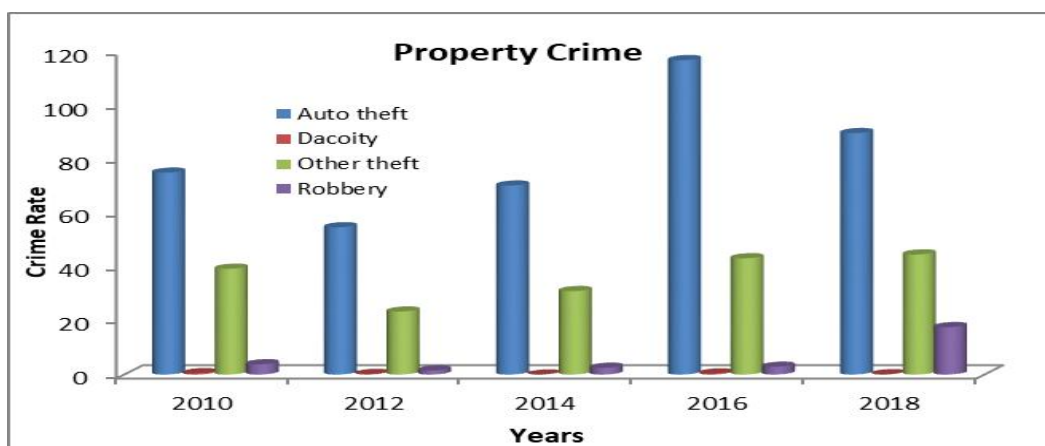


Fig.5

It 39.3 percent and 3.8 respectively in 2010 increased by 44.6 percent and 17.6 percent increased in 2018. 87.7 % in 2018. Figure 5 also showing the increasing trend of crime.

In table 6 the cases related with violent crime showing increasing trend. Kidnapping and abduction was highest rate of crime related with violent crime. In 2010 kidnapping and abduction was 11.1 percent and is increased by 25.8 percent in 2018.

Table: 6 Violent Crime					
Crime	2010	2012	2014	2016	2018
Attempt to commit murder	3	2.4	2.3	4.8	3.8
Culpable homicide not amounting to murder	0.8	0.5	0.6	0.5	0.9
Kidnapping & abduction	11.1	7.4	12	19.2	25.8
Murder	3.7	3.4	3.7	3.3	2.9
Riots	6.2	4.7	2.5	4.7	6.1

Source: NCRB 2010-2018

Other cases like murder, riots, culpable homicide not amounting to murder and attempt to commit murder also showing increasing trend (fig. 6)

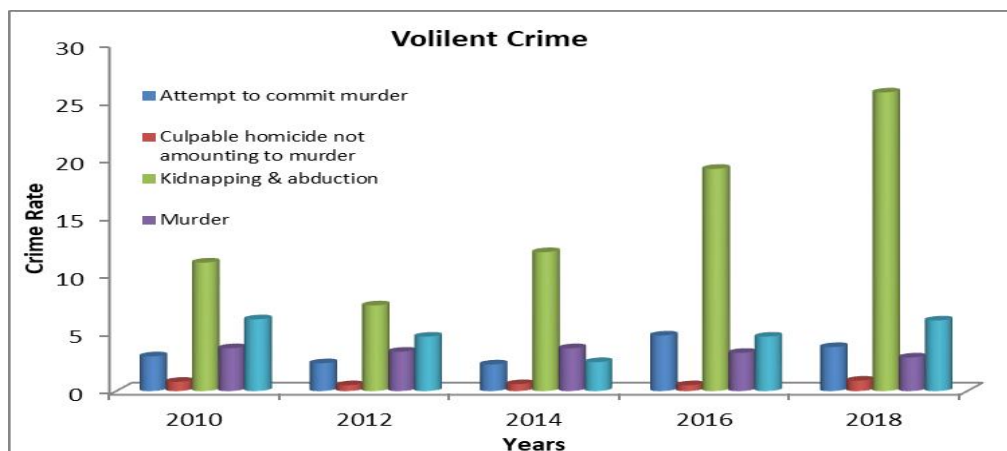


Fig.6

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**CONCLUSION AND SUGGESTION**

On the basis of above discussion it may be concluded that even other cities like Delhi and Kochi have the highest rate of crime but Lucknow city also showing a very significant change in the rate of crime from 2004 to 2018. On the basis of detail study of crime under different heads it also showing all the category of crime increasing trend whether crime against women or violent crime. It is said that the Lucknow city is also facing a grave threat of crime like any other metropolitan city of the India as world. if the trend continues, the problem would go beyond manageable limit.

1. Awareness campaign should be initiated to make them aware about the problem and the dangers they are facing.
2. Besides strict implementation of laws to curve the criminal activities, rehabilitation centers should be opened for the punished criminals, so that their further involvement in the criminal activities could be checked.
3. Special attention should be paid to the status of women their health status, and to involve them constructive activities through imparting vocational trainings, so that they would be empowered and can earn their livelihood.

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**USE OF MENTAL ACCOUNTING IN PURCHASE DECISION MAKING WITH REFERENCE TO D-MART IN THANE REGION**

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**ABSTRACT**

*Although the term Mental Accounting sounds strange to many people but knowingly or unknowingly every people is aware about mental accounting. Every human being allocates their budget mentally before attempt a purchase. Mental accounting plays a decisive role in purchase decision making. Thus after considering this psychological fact of people, the present study tries to explore the importance of mental accounting in purchase decision. The present study doesn't confine to only exploration of importance of mental accounting in purchase decision but also tries to place mental accounting as a vital stage in buying decision making process. The findings of such a study is expected to hold much importance in better understanding the basic and analytical manner in which the customers' minds work while deciding on their purchases; which, in turn, would be helpful in developing various marketing strategies in respect of timing of offers, pricing, payment aids, product launches, transaction facilitation, so on so forth. Moreover, this paper tries to add some more ingredients in mental accounting theory which was propounded by Richard H. Thaler.*

*Keywords: Mental Accounting, Consumer Decision Making Process, mental accounting process.*

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**INTRODUCTION**

Today market is totally consumer oriented. Consumer is the king in today's marketing world and the priority of marketer is to make consumers always happy. There are different types of decisions taken by consumer in order to get final purchase of "what to buy, how to buy, when to buy and how much to buy." But the question arises that how they take their purchase decisions, how they allocate money for everything they need to purchase. So now the concept of Mental Accounting arises which means to the tendency for people to separate their money into different accounts made by consumer themselves according to the origin of the money and intent for account.

The term mental accounting is named by Richard Thaler. Mental accounting is the set of cognitive operations used by individuals and households to organize, evaluate, and keep track of financial activities. Mental accounting theory states that a people separate their money into mental accounts, necessarily treating a rupee in one account differently from a rupee in another since each account has a different significant. The overarching notion behind the theory is that people think of value in relative rather than absolute terms. They derive pleasure not just from an object's value, but also the quality of the deal.

A core idea of mental accounting is that people treat money differently, depending on factors such as the money's origin and intended use, rather than thinking of it in terms of formal accounting.

**RATIONALE AND GAP ANALYSIS**

India is predominantly a country of savers, and within such country is the establishment of Dmart which has taken the Indian shoppers by storm. DMart has created a Win-Win Matrix in the minds of all its stakeholders but especially that of the consumers. This study focuses on the successful implementation of mental accounting strategies by DMart.

In 1999 Richard H. Thaler had coined the term Mental Accounting in his paper "Mental Accounting Matters". He gave the definition that 'Mental Accounting is the set of cognitive operations used by individuals and households to organize, evaluate and keep track of funding activities'. He underlined this theory with the concept of fungibility of money. It means that, regardless of its origins or intended use, all money is the same. In this paper only the first component of Mental Accounting Transactional utility, a term used to describe the happiness a consumer gets from the perceived value of the deal, and the principle of framing gains and losses is explored.

This paper aims to find out how Consumers behave differently when the same product is purchased with unexpected discounts in D Mart and at MRP in a local Kirana store. It analyses when (i) a discount is offered unexpectedly the Consumer will buy more than what is required but won't do the same in a local kirana store (ii) the gains (discount) of each and every product purchased from D Mart are segregated while that from a Kirana store the losses are integrated. Ex. Consumer goes to D Mart and finds out unexpectedly that two shampoo bottles are on sale with 50% off. He buys both the bottles irrespective of the fact he did not need it,

while this would not been the case had the discount factor been eliminated by buying it from a local kirana store(MRP). First the discount factor comes into play inducing the Consumer to buy more then he normally would have and Second segregation of discount received from each product purchased gives greater pleasure.

D Mart has correctly exploited the strategy of Mental Accounting by providing transactional utility for the daily necessity items. The Gap Analysis presented through this study is that Consumers don't perceive the Mental Accounting Effect on daily basis when shopping from D Mart. For this the research has taken up 3 areas to study. One is a comparison of Mental Accounts with respect to D Mart and Kirana Store. The Second is the Strategy of D Mart and Third is Source of payment transactions.

- Two different Mental Accounts are created one while shopping from D Mart and another from a Kirana Store just because of 2 factors coming into play. One is Discount and second the Quantity of Purchase (Bulk or small). This makes the concept that Money is fungible irrelevant for consumers.
- D Mart successfully creates the experience of transactional utility higher prompting people to go again and again to spend in bulk.

Settling transactions by using Cash Vs Plastic Cards / Digital Wallets /UPI etc.

### **OBJECTIVES OF THE STUDY:**

The objectives of the study are laid down as follow:

- To analyse the effect of Mental Accounting strategies implemented by D mart on the Consumer in comparison to a Kirana store.
- To determine the impact of using Cash vs POS Machines ,Digital Wallet.
- To highlight the effect of discount which is considered free money and MRP while making small purchase
- To determine the importance of mental accounting in purchase decision with regard to different types of purchase behavior
- To show Mental Accounting as a stage in buying decision making process with regard to different types of purchase behavior

### **REVIEW OF LITERATURE:**

Hasting& Shapiro (2012) carried out a study on "Mental Accounting and Consumer Choice: Evidence from Commodity Price Shocks." They embedded the test in a discrete choice model of product quality choice and estimate the model using micro data on gasoline purchase. They evaluate the qualitative performance of aset of psychological models of decision making in explaining the pattern they observe.

Heath, et al. (1995)studied on "Mental Accounting and Changes in Prices: The frame dependence of reference dependence." Their findings demonstrate that mental accounting principle, principle perception, and reference dependence are sensitivity to the ways in which deviations from reference state are framed.

Karlson. (1998) studied on "Mental Accounting and Self Control". His study tested the hypothesis that future consumption is considered to a lesser extent when money is available as current income compared to when current assets have to be used. He found that the uncertainty of future expenses imposed by greater distance in time increased the difference in decisiveness to buy between current asset and income.

Aggarwal& Liu.(2012)conducted their study on "Mental Accounting in Consumer Brand Relationship." They contributed by outlining the multitude of ways in which the application of mental accounting framework to consumer based relationship can give deeper insights into the antecedents, processes and consequences underlying consumer behavior.

Thaler, R.H. (1999)carried out a study on "Mental Accounting Matters". This paper summarizes the current state of our knowledge about how people engaged in mental accounting activities. The paper concerns with three components of mental accounting which receives the most attention and his paper comes into conclusion that each of the components of mental accounting violates the economic principle of fungibility.

Thaler, R.H. (1985)studied on "Mental Accounting and Consumer Choice". He develops a new model of consumer behavior using a hybrid of cognitive psychology and microeconomics. He also incorporated household budgeting process to complete the characterization of mental accounting.

Kivetz, R. (1999)studied on "Advances in Research on Mental Accounting and Reason Based Choice." This paper explores recent research on the role of mental accounting and reason based choice. The paper also

discussed the construction of preference as a process where in certain cases consumer chooses reasons rather than options.

### **RESEARCH METHODOLOGY**

Study was conducted among the people who use and do not use D-Mart for their monthly or daily requirement goods shopping who were the sampling unit of the research. Data collection was done from various customers through Questionnaire. Questions in the questionnaire were both open-ended and close-ended questions. Data was collected through primary sources. Data was collected from people across Thane which were our sampling area. Sample size was approximately 100 samples. The software used for questionnaire was Survey Heart.

Assumptions: To make the study more feasible the assumptions undertaken

1. Consumer visits both D mart as well as the Kirana store
2. Consumer lives in a locality near to D mart

### **QUESTIONNAIRE**

### **OUTCOMES**

1. Two Mental Accounts Created for D Mart and Kirana store Scenario 1: In DMart Mental Account, Discount is equated to Savings and so bulk purchases are made. Although this gives a sense of satisfaction to the Consumers, in reality they spend more than what is actually required/planned. The discount effect reduces the fungible effect of money leading to higher purchases and lower savings. Scenario 2: In Kirana Store Mental Account, Consumers are willing to spend and shell out the MRP Price since only few purchases are made. The impact of few purchases reduces the fungibility concept of money. Due to low quantity and low amount, Consumers neither will they equate it to a higher amount paid nor will they consider savings aspect in this regard. This is due to not regarding money as fungible and differentiating it to be a small amount. Another reason could be how Consumers perceive that they are not getting any discount as compared to DMart whereas they are getting discounts on each and every product. But it still leads to them willing shelling out the MRP prices because of keeping it in the Mental Account that the amount is small.
2. Cash Payments does have an impact on Quantity purchased Whether in D mart or in a Kirana store making payment in Cash does have an effect as compared to using plastic money, digital wallets. Money is considered to be fungible when making payment in Cash by calculating the amount to be paid and the change to be received. Plastic Money/Digital Wallet reduces this effect considerably leading to making unnecessary expenses or availing attractive deals than what is required. Benefit to the Society

The central benefits of mental accounting that have received significant academic attention are: -

- Simplification of financial decisions
- Implementation of spending rules

Segregating funds allows people to resist the temptation of immediate consumption opportunities by pre-committing their spending. Some of the other benefits of being aware about Mental Accounting are as follows: Discount Effect: Money should be treated fungible even while availing unexpected discount. Savers Mentality: In order to save money, we buy more discounted goods than what is required. If we had an Investor Mentality, we would only purchase what is required without giving into unnecessary expenses or bulk purchases. Consumption Level: Increase in consuming more quantities than what is required becomes quite the norm. Green Effect: Unexpected Purchases lead to a downfall in creating a Green Effect for the Environment. Relatable Example: Awareness to the Society regarding the concept of Mental Accounting in their day to day affairs of making groceries purchases. Better Planning: Taking conscious effort and planning beforehand will reduce the mental accounting to an extent.

### **FUTURE SCOPE**

By 2025 Digital Payments in India is set to grow to 71.7% of all payment transactions (ACI Worldwide Report). In March 2021 alone United Payments Interface (UPI), India's big digital payments bet, has broken a new record by crossing ₹5 lakh crore in value across 2.30 billion transactions. This trend is set to rise which has already been accelerated by the pandemic. Growing number of user base and transactions will birth to the use of UPI/Digital wallets/Plastic Money where Mental Accounting will play an important role. There is scope for further study to be carried in future about the impact of going cashless, the mental accounting effect and the

new strategies adopted by Indian Retail Corporations. It will be interesting to note the evolvement of mental accounting strategies.

Another study could be of E-Commerce operations in India with respect to Mental Accounting which is surprisingly shown to lower the impact in Developed Countries.

### **SWOC ANALYSIS/LIMITATIONS**

The SWOC analysis of this study highlights the successful implementation of the Win-Win Matrix by D mart in the minds of all stakeholders. With reference to Consumers the daily discount given by reducing their profitability margin creates an attractive deal and Mental Accounting strategy but at the same time is a weakness for D Mart.

This study is limited to the fact that the Consumer might know the concept of Mental Accounting but won't be able to apply it or might not know the concept of Mental Accounting but will be able to make proper use of its application. The Strengths for the Consumer will be once he is able to identify he will be more conscious while weakness will always be weighing time ,effort and convenience over money. The Opportunity will be choosing the one which benefits him the most in terms of money as well the value and necessity of commodity purchased while the challenge will be to overcome the attractive deals.

### **DATA ANALYSIS**

This analysis and interpretation of data and information of the study has been shown below:

- I. Except budget, window display is considered most by majority of the respondents in complex purchase whereas behavior of the seller is considered most in habitual purchase.
- II. Debit card/Credit card is considered as the most preferred option for payment in complex purchase whereas cash payment is considered most in habitual purchase.

.Mental accounting is a process which take place in the minds of the consumer as it has been found from the study that first the need for money arises as soon as the need for any product/service arises. Then majority of the respondents tries to make tentative budget for their monetary requirement which is needed to satisfy the need. After making budget people tries to evaluate the sources in their mind from where they will raise their fund also consider the solutions for repayment and adjustments to those sources. After this they acquire the money from the appropriate source and go for information search regarding product or services.

It has been observed from the study that Mental accounting process applies only in case of complex purchase because in case of habitual purchase people do not tend to follow the mental accounting process just like in case of purchase decision making.

**CONSUMER BUYING BEHAVIOUR-** Consumer buying behavior is the end result of the attitudes, preferences, intentions and decisions made by the consumers in a market place before buying a product. The study of consumer buying behavior is an interdisciplinary approach drawing widely from sociology, psychology, anthropology etc. Types of Buying Behavior

- a) Complex: consumer involvement with significant brand differences Is high E.g.:- Cars.
- b) Dissonance Reducing: High degree of involvement with little brand differences. E.g.:- Carpeting
- c) Habitual: Low involvement with little brand difference. E.g.:- Salt
- d) Variety seeking: Low enthusiasm with significant perceived brand difference. E.g.:-Chocolates .

The buying decision process involves Need Identification--- Information search ---Listing of alternatives --- Evaluation of alternatives ---Purchase Decision ---Post purchase behaviour ,where mental accounting plays a very important role in listing of alternatives .

### **CONCLUSION OF THE STUDY:**

The main purpose of the study was to create a deeper and through consideration about mental accounting and its importance in purchase decision making. As we know how important mental accounting can be now a days and how much it influences the purchase decision of a consumer. In order to comply with the study, a questionnaire has been distributed among 100 respondents and the study reveals that mental accounting has a strong and positive influence in purchase decision making. The study also reveals that in the purchase decision making people tend to follow mental accounting especially in a case of complex buying behavior. In this study it has also been found that while purchasing, budget is something which comes to the mind of the customer first. The study reveals that people generally tend to make accounts in their mind for all expenses and after making

accounts in their mind they go through a process which we can call as mental accounting process where they consider the source for the money, repayment to those sources etc. but mental accounting process generally very effective only in case of complex purchase where the involvement of the consumer is very high.

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**NEW EDUCATION POLICY AND REFORMS**

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**ABSTRACT**

*Another important day to be marked in the history of making India a global superpower. Long-awaited, the new education policy was approved by the Union Cabinet at a meeting presided by Prime Minister Narendra Modi on Wednesday, 29th July 2020. The new education system aims at bringing in transformation reforms in the education system of schools and higher education. Replacing the 34-year old education system is another major move in the direction of strengthening India as a global power. The new education system can prove to be a turning stone in the times to come. Some have welcomed it with open minds and for some, the changes introduced are still confusing. To make it easy to understand for the common man, here are some of the major highlights of the NEP.*

*Key word- Education policy,*

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**INTRODUCTION**

NEP-2020, which will replace the National Policy on Education-1986, is an inclusive framework focusing on the elementary-level of education to higher education in the country. As the objective of any education system is to benefit children so that no child loses any opportunity to learn and excel because of circumstances of birth or background, NEP-2020 has a target of 100% Gross Enrolment Ratio (GER), in school education by 2030. The Policy reaffirms that bridging social gaps in access, participation, and learning outcomes in school education will continue to be one of the major goals of all education sector development programmes. Many government and non-government surveys done in the last several years had hinted at the precarious state of 'learning crises in India. However, the true picture emerged after a National Achievement Survey (NAS) was undertaken by the National Council of Educational research and Training (NCERT), which was ably supported by the Union ministry of education. The survey was aimed at understanding how effectively the school system is working in the country based on student learning. It was conducted across the country on November 13, 2017 for Classes III, V and VIII in government and government-aided schools. It was by far the largest assessment survey conducted in the country and is also one of the largest conducted in the world. The findings stated that students across 12 states scored significantly below the national average in mathematics ability. NAS identifies learning as big challenge facing Indian education. The next few years are critical as India could lose 10 crore or more students because of learning losses and lead to illiteracy unless proper action is not taken soon. Union minister of education Ramesh Pokhriyal said that the fundamental principles of NEP is to accord highest priority to achieving foundational literacy and numeracy by all students by Grade III, which the government is committed to achieving by 2025.

To translate this particular vision of NEP-2020, under the 'Atmanirbhar Bharat' programme, a National Initiative for Proficiency in Reading with Understanding and Numeracy (NIPUN—Bharat) will be soon launched. This mission will fulfill the learning needs of nearly five crore children in the age group of 3 to 11 years. The mission will also take a holistic approach and involve all stakeholders actively for achieving the goals. NEP would transform the education sector in the country as it focuses on making education accessible, equitable, inclusive but only if implemented at all levels. The main challenge is to implement the highly comprehensive NEP 2020.

- School Education :
  - Universalization of education from preschool to secondary level with 100% Gross Enrolment Ratio (GER) in school education by 2030.
  - To bring 2 crore out of school children back into the mainstream through an open schooling system.
  - The current 10+2 system to be replaced by a new 5+3+3+4 curricular structure corresponding to ages 3-8, 8-11, 11-14, and 14-18 years respectively.
- It will bring the uncovered age group of 3-6 years under school curriculum, which has been recognized globally as the crucial stage for development of mental faculties of a child.
- It will also have 12 years of schooling with three years of Anganwadi/ pre schooling.

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- Class 10 and 12 board examinations to be made easier, to test core competencies rather than memorised facts, with all students allowed to take the exam twice.
  - School governance is set to change, with a new accreditation framework and an independent authority to regulate both public and private schools.
  - Emphasis on Foundational Literacy and Numeracy, no rigid separation between academic streams, extracurricular, vocational streams in schools.
  - Vocational Education to start from Class 6 with Internships.
  - Teaching up to at least Grade 5 to be in mother tongue/regional language. No language will be imposed on any student.
  - Assessment reforms with 360 degree Holistic Progress Card, tracking Student Progress for achieving Learning Outcomes
  - A new and comprehensive National Curriculum Framework for Teacher Education (NCFTE) 2021, will be formulated by the National Council for Teacher Education (NCTE) in consultation with National Council of Educational Research and Training (NCERT).
  - By 2030, the minimum degree qualification for teaching will be a 4-year integrated B.Ed. degree.
  - Higher Education :
    - Gross Enrolment Ratio in higher education to be raised to 50% by 2035. Also, 3.5 crore seats to be added in higher education.
    - The current Gross Enrolment Ratio (GER) in higher education is 26.3%.
    - Holistic Undergraduate education with a flexible curriculum can be of 3 or 4 years with multiple exit options and appropriate certification within this period.
    - M.Phil courses will be discontinued and all the courses at undergraduate, postgraduate and PhD level will now be interdisciplinary.
    - Academic Bank of Credits to be established to facilitate Transfer of Credits.
    - Multidisciplinary Education and Research Universities (MERUs), at par with IITs, IIMs, to be set up as models of best multidisciplinary education of global standards in the country.
    - The National Research Foundation will be created as an apex body for fostering a strong research culture and building research capacity across higher education.
    - Higher Education Commission of India (HECI) will be set up as a single umbrella body for the entire higher education, excluding medical and legal education. Public and private higher education institutions will be governed by the same set of norms for regulation, accreditation and academic standards. Also, HECI will be having four independent verticals namely,
      - National Higher Education Regulatory Council (NHERC) for regulation,
      - General Education Council (GEC) for standard setting,
      - Higher Education Grants Council (HEGC) for funding,
      - National Accreditation Council (NAC) for accreditation.
    - Affiliation of colleges is to be phased out in 15 years and a stage-wise mechanism to be established for granting graded autonomy to colleges.
    - Over a period of time, every college is expected to develop into either an autonomous degree-granting College, or a constituent college of a university.
  - Other Changes:
    - An autonomous body, the National Educational Technology Forum (NETF), will be created to provide a platform for the free exchange of ideas on the use of technology to enhance learning, assessment, planning, administration.
    - National Assessment Centre- 'PARAKH' has been created to assess the students.
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- It also paves the way for foreign universities to set up campuses in India.
- It emphasizes setting up of Gender Inclusion Fund, Special Education Zones for disadvantaged regions and groups.
- National Institute for Pali, Persian and Prakrit, Indian Institute of Translation and Interpretation to be set up.
- It also aims to increase the public investment in the Education sector to reach 6% of GDP at the earliest.
- Currently, India spends around 4.6 % of its total GDP on education.

#### Education in India

- Constitutional Provisions:
  - Part IV of Indian Constitution, Article 45 and Article 39 (f) of Directive Principles of State Policy (DPSP), has a provision for state-funded as well as equitable and accessible education.
  - The 42<sup>nd</sup> Amendment to the Constitution in 1976 moved education from the State to the Concurrent List.

The education policies by the Central government provides a broad direction and state governments are expected to follow it. But it is not mandatory, for instance Tamil Nadu does not follow the three-language formula prescribed by the first education policy in 1968. The 86<sup>th</sup> Amendment in 2002 made education an enforceable right under Article 21-A.

- Related Laws:
  - Right To Education (RTE) Act, 2009 aims to provide primary education to all children aged 6 to 14 years and enforces education as a Fundamental Right.
  - It also mandates 25% reservation for disadvantaged sections of the society where disadvantaged groups
- Government Initiatives:
  - Sarva Shiksha Abhiyan, Mid Day Meal Scheme, Navodaya Vidyalayas (NVS schools), Kendriya Vidyalayas (KV schools) and use of IT in education are a result of the NEP of 1986.

#### Way Forward

- A New Education Policy aims to facilitate an **inclusive, participatory and holistic approach**, which takes into consideration field experiences, empirical research, stakeholder feedback, as well as lessons learned from best practices.
- It is a progressive shift towards a more scientific approach to education. The prescribed structure will help to cater the ability of the child – stages of cognitive development as well as social and physical awareness. If **implemented in its true vision**, the new structure can bring India at par with the leading countries of the world.

#### Main highlights of education policy of others country

##### UNITED STATE

The United States is known to have one of the most diverse education system in the world. However, despite is literacy rate of 99%, and the fact that the country spends more per student on education, as compared to any other country; it ranks relatively lower with regards to academic excellence. The education system is decentralized, with the primary responsibility of the same lying with the state and local government. Curriculum in each state differs, based on the accessibility, autonomy and diversity of that state. The federal government established a standardized curriculum called the Common Core, to ensure students graduate high school with knowledge and skills required to succeed outside school, in later stages of life. The system also places equal importance on arts, sports, extracurricular activities, encouraging overall development. CPD for teachers have a direct impact on their career, thus reinforcing the need for up gradation of skills.

##### RUSSIA

Russia has one of the highest literacy rates at 99.7 %. General education in Russia comprises pre-school education, elementary education, lower-secondary, and upper-secondary education, with compulsory education until Grade 11. Education is state owned, and regional authorities regulate education within the framework of federal laws. Compared to other OECD countries, Russia has the smallest class sizes, and

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shortest instruction hours per year. The distinct features of the education system are its focus on high level of education, especially in technical areas, which has been instrumental in the development of its new economy.

**There can be four major contributors to policy failure**

1. Overly optimistic expectations: Due to over optimism there is and under estimation of cost and time for a policy to be implemented.
2. Implementation in dispersed governance: When the policy is tailor made to fit all irrespective of their constraints.
3. Inadequate collaborative policymaking: Lack of collaboration with all the stakeholders
4. Vagaries of the political cycle: The policy makers concentrate on the short-term results as they don't want to be tagged for the failure, and take credit of the legislation that is passed rather than its implementation.

Therefore, to implement the NEP 2020 we need to work upon a few major challenges.

**Successfully implement the NEP**

1. To implement NEP successfully at all levels the government will need to create stakeholder incentives so that the implementation is smooth and uniform.
2. Formulate instruments in the form of legal, policy, regulatory and institutional mechanisms
3. Build reliable information repositories
4. Develop adaptability across HEIs, regulatory bodies and government agencies
5. Develop credibility through transparent actions and participation of all stakeholders;
6. Develop sound principles of management

**CONCLUSION**

The more the focus on continuous development for teachers and greater autonomy with institutions, the better the education system over all is. The New Education Policy has covered these aspects well, but we will have to wait and watch as these policies take shape in the coming years, to truly understand how impactful it is in real time.

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**A STUDY ON LEVEL OF AWARENESS AND PERCEPTION OF CONSUMERS TOWARDS GREEN MARKETING IN MUMBAI CITY**

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**Dr. Hemal Vora**

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**ABSTRACT**

*The study is an attempt to know the awareness and perception of consumers towards green marketing in Mumbai City. The main aim of the study is to find out the awareness and perception of consumers towards green marketing in Mumbai City. Primary data were collected with the help of the structured questionnaire. Secondary data were collected through website published articles; news paper and relevant journals etc. The purposive sampling technique was adopted for the study. The sample size considered for the study is 150 consumers in Mumbai City. It is understood that huge investment is required to develop green products and believe in the benefits of green marketing are the important awareness towards green marketing among the consumers. Perception regarding green products is statistically significant for the consumers who are in the age group of above 50 years compared to all other age groups i.e. below 30 years, 31-40 years and 41-50 years.*

**KEYWORDS:** *Green Marketing, Consumers, Awareness and Perception*

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**INTRODUCTION**

Green issues are a worldwide concept among people's concern and changes their lifestyle into environmentally responsible. As society becomes more concerned with the natural environment, businesses have begun to modify their process in an attempt to address society's new issues. Some businesses have been quick to accept the newer challenges or changes like environmental management, minimization of the waste aligning with organizational activities. Thus the study is an attempt to know the awareness and perception of consumers towards green marketing in Mumbai.

**MEANING**

Green marketing refers to the process of selling products and/or services based on their environmental benefits. Such a product or service may be environmentally friendly in it or produced and/or packaged in an environmentally friendly way.

**DEFINITION**

According to the American Marketing Association, green marketing is the marketing of products that are presumed to be environmentally safe. Thus green marketing incorporates a broad range of activities, including product modification, changes to the production process, packaging changes, as well as modifying advertising.

**STATEMENT OF THE PROBLEM**

Consumers awareness and perception towards green marketing is not clear, as they are still unstable. Most consumers are willing to participate in environmental activities and willing to contribute their own efforts for environmental protection. However, not many realize that their consumption behavior has an impact on the environment. At present, the price of green products is high and they do not have adequate income and thus, they do not want to spend a higher price to buy green products. The current consumers consider the quality and price factors as the most important while purchasing green products, and they give little consideration to environmental protection, as they are reluctant to pay a higher price for green products.

**SCOPE OF THE STUDY**

Green marketing helps in understanding the ways and means by a way of which activities can be performed by focusing on the environment as well as the needs of the consumers and the organization.

**OBJECTIVES OF THE STUDY**

- (i) To study the awareness of consumers towards green marketing in Mumbai City.
- (ii) To know the perception of consumers towards green products in Mumbai City.

**HYPOTHESES**

The following hypotheses were framed for the study

- 1) There is no significant difference in perception regarding green products among different gender group of consumers in Mumbai City

- 2) There is no significant difference in awareness towards green marketing among different gender group of consumers in Mumbai City
- 3) There is no significant difference in perception regarding green products among different age group of consumers in Mumbai City

### METHODOLOGY

Primary data were collected with the help of the structured questionnaire. Secondary data were collected through website published articles; news paper and relevant journals etc. The questionnaire was designed in such a way that there are several questions included for studying the objectives of the research. The questions include firstly on the awareness of consumers towards green marketing, secondly, on the aspects of consumers perception towards green marketing. The purposive sampling technique was adopted for the study. The sample size considered for the study is 150 consumers in Mumbai City.

### LIMITATIONS OF THE STUDY

- ✓ The study has been conducted only in Mumbai City.
- ✓ Opinion of the consumers is not final, because the opinion or preference may differ from time to time depending on the situation.

### ANALYSIS AND INTERPRETATION

#### Perception regarding green products

The following null hypothesis was formulated to assess the substantial difference between the gender group of consumers and perception regarding green products.

Null Hypothesis: There is no significant difference in perception regarding green products among different gender group of consumers in Mumbai City.

**Table 1: Perception regarding green products**

Perception regarding green products	Gender [Mean Score]		T Statistics
	Male	Female	
Green products helps to protect the environment	4.2489	3.7296	3.201*
Green products are better quality than non green products	3.9681	3.5811	2.890*
The promotions of green products by the companies are just a publicity stunt	3.8689	3.8111	0.355
Green products are too expensive as increased price doesn't add any benefit in it	3.9394	3.7986	1.505
Green products make no difference than non green products	3.6477	3.8000	1.434

Source: Primary data

\*-Significant at five per cent level

Table 1 reveals that green products helps to protect the environment and green products are better quality than non green products are the important perception regarding green products among the consumers who are male because the respective high average perception scores are 4.2489 and 3.9681 respectively. Table further reveals that the promotions of green products by the companies are just a publicity stunt and green products are too expensive as increased price doesn't add any benefit in it are the important perception regarding green products among the consumers who are female because the respective high average perception scores are 3.8111 and 3.7986 respectively.

A significant difference among the different gender group of consumers was identified regarding the perception towards green products are identified in the case of green products helps to protect the environment and green products are better quality than non green products.

#### Awareness of Consumers towards Green Marketing

The following null hypothesis was designed to detect the substantial difference in awareness towards green marketing among different gender group of consumers.

**Null Hypothesis:** There is no significant difference in awareness towards green marketing among different gender group of consumers in Mumbai City

**Table 2: Awareness of Consumers towards Green Marketing**

Awareness of Consumers towards Green Marketing	Gender [Mean Score]		T Statistics
	Male	Female	
Believe in the benefits of green marketing	3.9722	3.7534	2.077*
Aware of companies going green	3.7875	3.5375	2.839*
Aware about the advantages of using green products	3.9194	3.6295	2.881*
Regular marketing techniques harm the environment	3.9444	3.7379	2.403*
Productivity can be improved drastically by using green marketing	3.9375	3.7167	2.239*
Companies are reluctant in implementing green marketing	3.9306	3.7140	2.129*
Huge investment is required to develop green products	4.0278	3.7856	2.450*

Source: Primary data

\*-Significant at five per cent level

Table 2 emphasizes that huge investment is required to develop green products and believe in the benefits of green marketing are the important awareness towards green marketing among the consumers who are male because their high awareness scores are 4.0278 and 3.9722 respectively. Table further emphasizes that huge investment is required to develop green products and believe in the benefits of green marketing are the important awareness towards green marketing among the consumers who are female because their high awareness scores are 3.7856 and 3.7534 respectively.

A major difference between the different gender groups of consumers was found concerning the awareness towards green marketing on its various aspects, in particular believe in the benefits of green marketing, aware of companies going green, aware about the advantages of using green products, regular marketing techniques harm the environment, productivity can be improved drastically by using green marketing, companies are reluctant in implementing green marketing and huge investment is required to develop green products.

#### **Age-wise ANOVA regarding the influence on score of perception regarding green products**

The analysis of variance (ANOVA) on the basis of age group of consumers and score for perception regarding green products is shown below in Table 3. It has been documented that the mean score is statistically significant different between perception regarding green products and age group of consumers as  $p < 0.05$  at 5% level of significance. The test of difference has been documented on a parametric scale, using the Analysis of Variance (ANOVA), which has been found to be significant ( $F = 8.350$ ,  $p = 0.000 < 0.05$ ). The mean score is shown to be the highest for the consumers who are in the age group of above 50 years and the lowest for those who are in the age group of below 30 years.

**Table 3: Analysis of variance (ANOVA) on the basis of age group of consumers and Perception regarding Green Products Score**

Age group	N (Valid)	Mean	S.D	Lower Bound	Upper Bound	F [Significance Level]
Below 30 years	24	21.27	2.59	20.53	24.00	8.350 (0.000)
31-40 years	40	21.56	3.17	21.09	24.35	
41-50 years	54	22.65	2.57	21.49	24.41	
Above 50 years	32	23.41	1.90	22.26	24.56	

Source: Computed Data

There is significant statistical difference between age group of consumers and perception regarding green products as determined by one way ANOVA ( $F = 8.350$ ,  $p = 0.000 < 0.05$ ). Thus, post-hoc analysis was applied as shown in Table 4. Post Hoc test revealed that the perception regarding green products is statistically significant for the consumers who are in the age group of above 50 years compared to all other age groups i.e. below 30 years, 31-40 years and 41-50 years. Consumers who are in the age group of above 50 years showed statistically significant difference from other age-groups as  $p < 0.05$  in each category. Hence, the null hypothesis ( $H_0$ ) is not accepted and it is proven that there is significant difference in the perception regarding green products across different age group of consumers.

**Table 4: Post-hoc analysis of age group of consumers and Perception regarding Green products (The mean difference is significant at 0.05 level)**

(I) Age group	(J) Age group	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Below 30 years	31-40 years	-7.68983*	2.17756	.003	-13.3168	-2.0628
	41-50 years	-.37836	2.44167	.999	-6.6879	5.9311
	Above 50 years	-12.13998*	3.23672	.001	-20.5040	-3.7760
31-40 years	Below 30 years	7.68983*	2.17756	.003	2.0628	13.3168
	41-50 years	7.31146*	2.30787	.009	1.3477	13.2752
	Above 50 years	-4.45016	3.13702	.489	-12.5565	3.6562
41-50 years	Below 30 years	.37836	2.44167	.999	-5.9311	6.6879
	31-40 years	-7.31146*	2.30787	.009	-13.2752	-1.3477
	Above 50 years	-11.76162*	3.32579	.003	-20.3558	-3.1675
Above 50 years	Below 30 years	12.13998*	3.23672	.001	3.7760	20.5040
	31-40 years	4.45016	3.13702	.489	-3.6562	12.5565
	41-50 years	11.76162*	3.32579	.003	3.1675	20.3558

\*. The mean difference is significant at the 0.05 level.

## SUGGESTIONS

1. Awareness about the green products among the consumers are not in the high level so it may be improved through advertisement in the newspaper and internet.
2. Price of the green product may be reduced by the green companies because consumers are considered price and affordability
3. Consumers are considering brand and quality of the product so branded companies may give more importance to the quality of the green products.

## CONCLUSION

From the study the researcher understand that awareness of the green marketing is not in the high level among the consumers, and they are not willingness to pay little extra price for the green products and not satisfied with the affordability of the green products and also consumers are highly considered the brand and quality in their purchase decision. This research is useful for business, government, and also researchers those who are involved in the field of green marketing and buying behavior and conservative environmental behavior of the consumers.

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**THE INFLUENCE OF DIGITAL MARKETING DETERMINANTS ON CUSTOMER ENGAGEMENT IN THE INSURANCE SECTOR (A SPECIAL REFERENCE TO JALGAON CITY.)**

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**1.0 ABSTRACT:**

*Technology and new data sources are changing fundamentally. As technology is changing, Digital Marketing is playing an important role in the promotion of businesses. It is observed that Digital Marketing had been seen to Influence the economy as a whole, society, and even the insurance industry. The present paper studies influence of Digital Marketing determinants on customer engagement in the insurance sector. The researchers used a simple random sampling technique during the process.*

*The research population consists of 417 customers and experts of insurance companies in Jalgaon District. To answer the research question, four Digital Marketing determinants have been defined, and the relation between “the determinants” and “customer engagement” has been tested by providing a conceptual model. The determinants include security, information availability, promotional clarity and authentication.*

*Keywords: Digital Marketing, Insurance sector, security, information availability, promotional clarity, authentication.*

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**2.0 INTRODUCTION:**

In the present research, the researcher analyzes the influence of digital marketing determinants on the customer engagement in the relevant sector. The study is having a particular reference to Jalgaon City. The Researcher consider Security availability, Data provided, Promotional activity, and the information provided as Digital Marketing determinants of Insurance Sector. (Statista , 2021)

**2.1 Insurance industry in India:** The insurance industry is segmented into life insurance and non-life insurance, known as general insurance, administered and monitored by IRDAI. India has 68 recorded insurers. Including 24 as insurance sector, 27 as non-life insurers, and remaining as health insurers and re-insurance agents. (Statista , 2021) Demographic factors play an essential role in the development of the Insurance sector, the reason being the growing middle class, recognition among the young about insurable benefits, and broadening knowledge of the need for security and retirement planning. (InvestIndia, 2021 ) In the financial year 2019, private non-life insurers lead ahead of public insurers with a 48 percent market share compared to 39 percent by general insurers in 2020. Traditionally, the country's non-life market has been seen to be dominated by motor vehicle insurance due to mandatory third-party liability. However, health insurance has emerged as the fastest-growing segment in recent years. Apart from this, crop insurance was also a crucial portion of the overall private general insurance product mix, establishing a 22 percent market share in 2019. (Statista , 2021)

**2.2 Digital Marketing in Insurance Sector:** The modern insurance sector might have started in the 17th century. Moreover, buyers' demand related to products and services has changed drastically over time, the power of the internet at their fingertips being the primary factor for the change. While purchasing, Customers extensively research plans, read reviews about different providers and even go for peer recommendations. Insurance companies need to transform to this changing funnel and target their consumers to have desired profits. (Raman, 2020)

**2.3 Customer engagement:** In current years, the balance of power has evolved firmly from brands to customers, purely depending on customer's perceptions. The relationships between businesses and customers have moved beyond the transactional exchange. To establish customer loyalty, companies need to keep their customers interested – keeping them engaged. (Clark, 2021) Customer engagement places the strategic emphasis on creating valuable relationships between the customer and business, encouraging both parties to have a mutual benefit in that connection. Such a meeting of expectation needs a proper and multi-channel approach using an appropriate media of connection. (Smart Insights, 2021 )

**2.4 Customers Engagement through Digital Marketing:** Today's customers are tech-savvy than before, due to which even marketers have enormous tools to generate leads. But on the other hand, consumers' requirements are getting more sophisticated. Customers prefer personalized marketing, connecting with the

brand using the channels as per their preference. (Presitge Marketing , 2015). Many of the factors contribute to Customer Engagement, especially when Digital Media is concerned. The factor is the overall security, including financial and data security, and the second being Information Availability in faster mode through the Digital medium. Next is the amount of clarity the brands are giving while promoting their products and services, and last being the amount of data authentication provided by the digital mode.

### 3.0 RESEARCH METHODOLOGIES:

The research methodology of the research is as follows:

#### 3.1 Objectives:

1. To study the Digital Marketing determinants
2. To study the factors affecting customer engagement
3. To study the influential determinant of DM on customers engagement in insurance sector.

#### 3.2 Methodology:

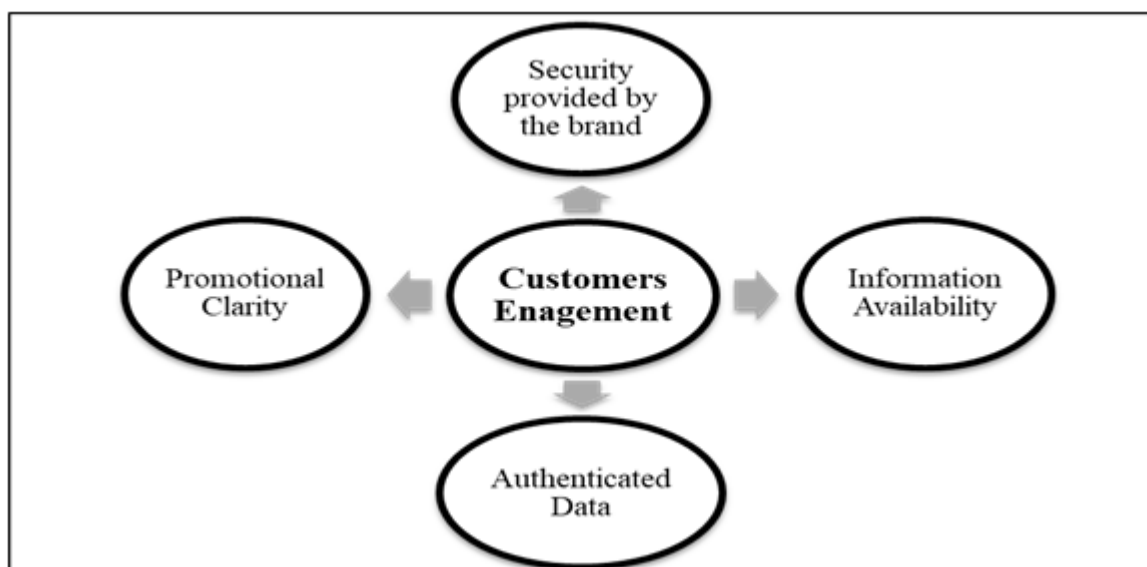
The researchers outfitted the poll based on the literature review, articles, and studies. While composing the structured questionnaire, 21 items were introduced, which were identical to the proposed research theme. Researchers collected data from 472 respondents, but only 417 polls were considered by the researcher, having appropriate erudition.

**3.3 Sample Size and Sampling Methodology:** The researcher considered four hundred seventeen questionnaires, having important information, and the methodology used by the researcher is the Simple Random Sampling Methods.

*Table 1: Demographic Breakdown of Participants*

Category	Number (N)	Percentage (%)
<b>Gender</b>		
Male	211	51
Female	207	49
<b>Age</b>		
<21 Years	47	12
21-35 Years	143	34
35- 50 Years	181	43
>50 Years	46	11
<b>Education</b>		
Undergraduate	162	39
Graduate	171	41
Post-Graduate	78	19
Doctorate / Post-Doc	6	1

**3.4** Researcher has developed a conceptual model for Customer Engagement as follows:



**3.5 Hypothesis:**

Researchers have developed four hypotheses based on the objectives, literature review, and conceptual model. The Null Hypothesis Proposed are as follows:

H01: Security provided by the brand has no significant effect on customer engagement.

H02: Information availability has no significant effect on customer engagement.

H03: Promotional clarity has no significant effect on customer engagement.

H04: Authenticated data has no significant effect on customer engagement.

**4.0 HYPOTHESIS TESTING:****Hypothesis 1:**

*H01: Security provided by the brand has no significant effect on customer engagement.*

ANOVA

Promotional clarity's effect on customer engagement

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	8.17	1	8.17	6.21	.013
Within Groups	547.49	416	1.32		
Total	555.66	417			

**Interpretation:** From above table, Researchers rejected the null Hypothesis, accepting the Alternative hypothesis that Promotional clarity has significant effect on customer engagement

**Hypothesis 2:**

*H02: Information availability has no significant effect on customer engagement.*

ANOVA

Information availability's effect on customer engagement.

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	32.90	1	32.90	28.23	.000
Within Groups	484.82	416	1.17		
Total	517.72	417			

**Interpretation:** From above table, Researchers rejected the null Hypothesis, , accepting the Alternative hypothesis that Information availability has significant effect on customer engagement

**Hypothesis 3:**

*H03: Promotional clarity has no significant effect on customer engagement.*

ANOVA

Security provided by the brand and its effect on customer engagement

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	23.64	1	23.64	32.26	.000
Within Groups	304.86	416	.73		
Total	328.50	417			

From above table, Researchers rejected null Hypothesis, accepting the Alternative hypothesis that Security provided by the brand has significant effect on customer engagement

**Hypothesis 4:**

*H04: Authenticated data has no significant effect on customer engagement.*

ANOVA

Authenticated data's effect on customer engagement

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	15.09	1	15.09	11.62	.001

Within Groups	539.94	416	1.30		
Total	555.02	417			

**Interpretation:** From above table, Researchers rejected the null Hypothesis, accepting the Alternative hypothesis that Authenticated data has significant effect on customer engagement.

### 5.0 DATA INTERPRETATION:

1. According to the data near about 81% that is 338 respondents are aware about the term Digital Marketing.
2. 67% i.e. 279 respondent finds security issue while going Digital Marketing.
3. Near about 19% i.e. 79 of respondents Strongly Agree that Security issues are less in Digital Marketing than traditional marketing, 21% i.e. 88 of the respondents agree with the same. Moreover, 9% of respondents were neutral about the statement, 34% i.e. 142 disagree with the statement, whereas 17% of respondents Strongly Disagree that Security issues are less in Digital Marketing than traditional marketing.
4. 34% of respondent agree that Information availability through Digital Marketing is trustworthy whereas the other 66% i.e. 275 of respondent do not agree with the stated statement.
5. While comparing Information availability through Digital Marketing and Traditional Marketing, about 9% of respondents strongly agree that Information availability through Digital Marketing is more trustworthy than traditional Marketing. The other 13% i.e. 54 of the respondents agree with the statement. Further, 7% of the respondent are neutral about the same, 37% i.e. 154 of respondents disagree that Information availability through Digital Marketing is more trustworthy than traditional Marketing and the other 34% i.e. 142 of the respondent Strongly Disagree with the same.
6. 76% i.e. 317 of the respondent agree that more Promotional Clarity is needed while insurance sector is going for Digital Marketing, whereas 24% of the respondent don't agree with the same.
7. 21%, i.e., 88 respondents strongly agree that Digital Marketing provides more Promotional clarity than traditional marketing, while 9% of the respondents concur with the same. 6% of the respondent are Neutral about the statement. In comparison, 42%, i.e., 175 of respondents Disagree, and the remaining 22%, i.e., 92 of respondents, strongly disagree that Digital Marketing provides more Promotional clarity than traditional marketing.
8. 62% i.e. 259 of respondents agree that Digital Marketing has authentication issue, whereas the other 38% of respondents do not agree with the same.
9. 13% of respondents Strongly Agree that Digital Marketing has less Authentication issues compared to traditional marketing, whereas 19% i.e. 79 of respondent agree with the statement. 9% of respondents are Neutral about the same. 39% i.e. 163 of respondent Disagree and the other 25% i.e. 104 respondent Strongly Disagree that Digital Marketing has less Authentication issues compared to traditional marketing.

### 6.0 CONCLUSION:

Customer engagement is a crucial part of any business, and as companies are moving digitally, even customer engagement through the Digital medium is essential. Customers are more engaged with the firms if their security concerns are more petite; at the same time, businesses should provide timely information with authenticated data. Promotional clarity is also a key concern for the customer engagement process.

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**ROLE OF INTERNET OF THINGS IN AGRICULTURE: APPLICATIONS AND CHALLENGES**

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**ABSTRACT**

*The IoT is an emerging space today and can be used anywhere in automation, agriculture, control and monitoring of any object in the real world. To be more productive, you need to take advantage of the IoT in agriculture. By using IoT, agricultural processes can become more efficient. Bring automation to the agricultural industry by reducing human intervention. In the current scenario, the farmer may be unaware of many new techniques and other conditions and may not produce productive results for the crop. This research study presents a detailed work of leading researchers and computer architectural designs that can be applied to smart agriculture in agriculture. The purpose of this research study is to investigate the application areas used in agriculture and the various challenges of IoT in agriculture.*

*Keywords- IoT, Agriculture, Sensors*

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**I. INTRODUCTION**

Smart farming is a concept of agricultural management that uses the latest technology to increase the quantity and quality of agricultural products. Farmers in the 21st century have access to GPS, soil scanning, data management and Internet of Things technologies. The goal of smart agricultural research is to create a decision-making system that supports agricultural management. The need to address issues such as population growth, climate change and labor has attracted technical attention for smart agriculture, animal planting and watering, and health and harvesting. In IoT-based smart agriculture, systems have been created to automate sensors (light, humidity, temperature, soil moisture, etc.) and crop irrigation. In the agricultural context, the Internet of Things (IoT) refers to the use of fields, cameras, and other devices that transform every aspect and behavior of agriculture into data. This approach significantly reduces the environmental impact of modern agriculture, so smart agriculture is needed to expand and develop what we have. Smart cities use connected sensors, lights, meters and other Internet of Things (IoT) devices to collect and analyze data. Cities then use this data to improve infrastructure, utilities, services, and more. It is difficult for farmers to understand the technical conditions and how to use the technology, which is the most effective.

According to the Food and Agriculture Organization of the United Nations (FAO), the world will need to produce 70% more food by 2050. But a major problem for producing more food will be the lack of agricultural land. This is because agricultural land is shrinking due to the expansion of concrete forests. The problem is compounded by the widespread availability of natural resources such as water and arable land, and the drastic reduction in crop yields. The use of IoT devices in agriculture provides farmers with tremendous opportunities to monitor, control and increase crop capacity. The main objective of this study is to explore the possibilities of using IoT devices in agriculture and their areas of application.

**II. APPLICATION OF IoT IN AGRICULTURE**

Various software industries and research centers strive for the use and impact of the Internet of Things (IoT) in agriculture and explore key research topics in this area. The review in this section sheds light on some of the most prominent researchers and computer architecture designs that apply to IoT in agriculture. (Alexandratos, N. and J. Brinsma (2012))

The hierarchical structure of the study is depicted in Figure 1, which contains the four domains of the study and their sub-domains.

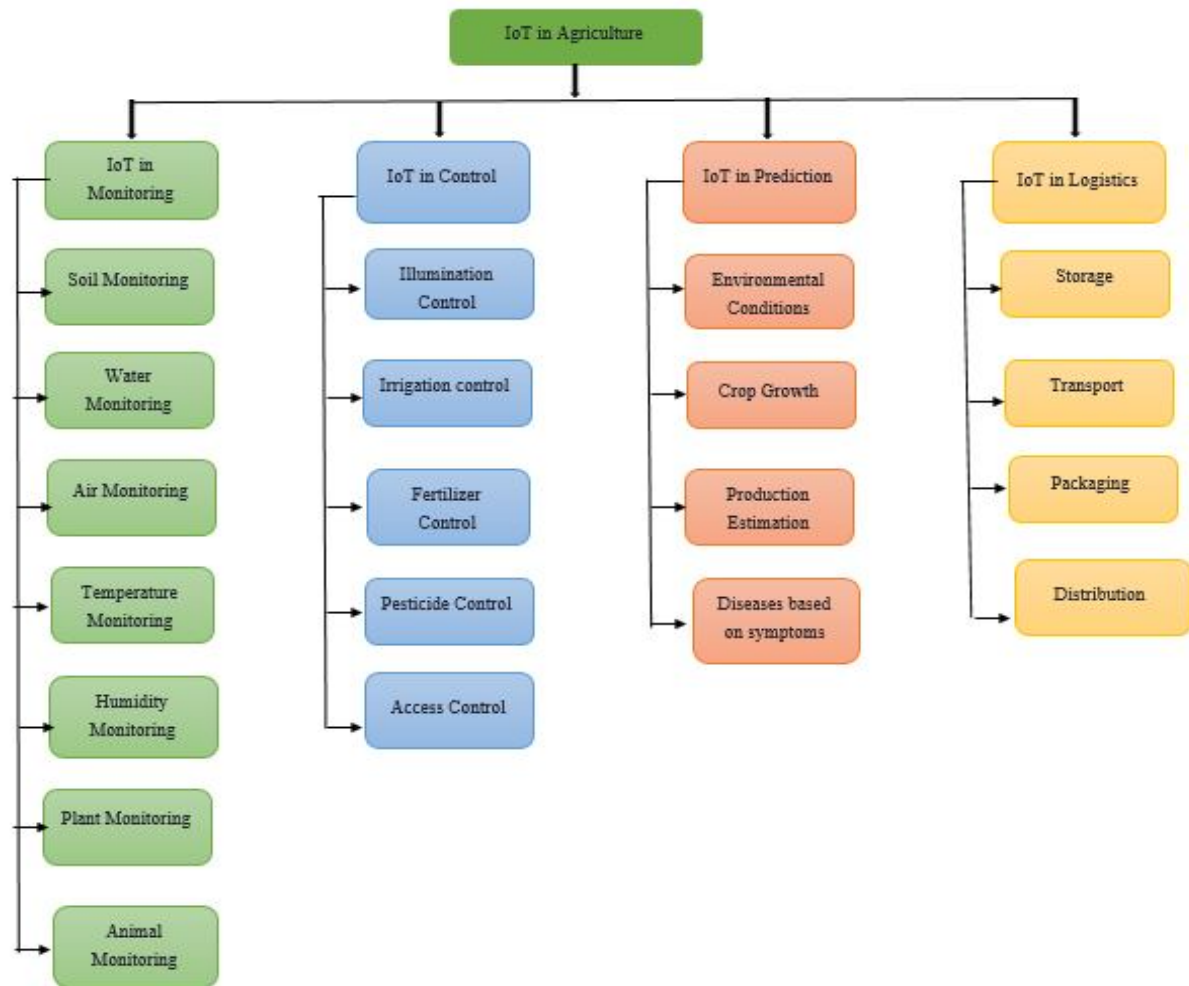


Figure 1 Hierarchical structure of IoT in Agriculture

In a developing country like India, IoT interventions and applications are mostly limited to sectors other than agriculture (Athena, S. and Tejeshwar, CH (2017)). With agriculture, climate change is the biggest problem. These climate changes directly affect all factors related to agriculture. Urgent reforms are needed to address this issue. IoT uses several sensors embedded in fields, which include soil moisture, temperature, humidity, precipitation, soil structure, soil temperature, leaf moisture, air quality, pest forecast, crops, water Level, etc. This analytical statistical data provides the farmer in a better way with useful information which helps him to make a very accurate decision. (Sri Nidhi Sadanganiya (2016))

### 1. IoT in Agriculture Monitoring

Furthermore, the IoT solutions in this section deal with the monitoring of various physical variables depending on the subdomain. The so-called subdomains are land monitoring, water monitoring, air monitoring, plant monitoring and others, including animal monitoring. (Lapping, W., (2012))

Authors and Year	Sub-Topic	Observations
K. Spandana and Suresh Pabboju, 2020	Soil Monitoring	The study reveals the problems farmers face in terms of soil changes, factors influencing evaporation, plant growth factors, soil problems, and the benefits of climate change to farmers. With the help of climate change soil moisture levels, soil types, soil quality and water quality, farmers determine which type of crop is suitable for profit instead of using traditional long methods.
E.Sowmiya and S.Sivaranjani, 2017	Soil Monitoring	This study focus on the remote control of the soil pH rate and its temperature rate has been done at very low cost. Values that farmers can see anywhere in the world. Therefore, this system provides a more accurate soil pH rate and temperature rate, which plays an important role in agriculture.

Ashwini B V, 2018	Water Monitoring	This system further reduces water consumption. Minimal maintenance required. Energy consumption has been significantly reduced. Increases crop productivity and significantly reduces crop waste.
Laura García, et al. (2020)	Water Monitoring	In this article, the author gives an overview of the current state of the art about IoT irrigation systems for agriculture. He pointed out the best monitoring parameters for irrigation, soil and weather conditions to characterize water quality. He also pointed out the common nodes and highly wireless technologies used to implement IoT and WSN systems for watering plants.
Hocine Mokrani, et al., 2019	Air Monitoring	This article aims to address the needs by reviewing existing work on air quality monitoring using the IoT, focusing on persistent trends and challenges.
Vijayakumar Sajjan, Pramod Sharma, 2019	Air Monitoring	This article suggests a practical structure for observing air pollution. The mandatory framework will focus on air poisoning investigation with the help of combining Internet objects with wireless sensor systems. Air quality testing should be possible by looking at the Air Quality Index (AQI).
K.H. Kishore, 2019	Temperature Monitoring	The system mentioned in this article is a motivating response for estimating temperature and stickiness conditions at a given point and can make reading anywhere on the planet undeniable.
Lal Bihari Barik, 2019	Temperature Monitoring	This study focus on Temperature and Humidity Monitoring. The experimental results show the live temperature and humidity of the surroundings and the soil moisture of any plant using Arduino UNO with Raspberry Pi. Raspberry Pi is mainly used here for checking the temperature and humidity through the HTU 211D sensor element.
Ms.Sujeetha. R/AP, et al. , 2019	Humidity Monitoring	In this article, proposed structure, humidity and temperature improvement. The structure is more efficient, smaller in size and convenient. A sensor is an integrated beam that has the ability to estimate temperature and junction in a single beam.
Akash, et al., 2017	Humidity Monitoring	The goal of this project is to reduce manpower and create an IoT-based temperature and humidity monitoring system that takes these factors into account. An important feature of this work is the collection of field data by the sensor and its transmission to the Internet. This data can be analyzed using any computer or mobile phone around the world to make real-time decisions.
A. Pravin, 2018	Plant Monitoring	The author proposed a system that captures all the details about soil and temperature using various sensors. The detected information will be sent to the processor, and based on the result, a warning message will be sent and the corresponding amount of water will be released into the culture. And additional information about the amount of fertilizer and the presence of any serious attacks on the crop, which will also be identified by the system.
Srivenkatesan S, et al., 2020	Plant Monitoring	In this article author propose an algorithm to detect death and, depending on the types of diseases, the related drug can be delivered to the cultures through an automated prototype.
Luis Nobrega, et al., 2018	Animal Monitoring	In this paper, researcher propose an animal behavior monitoring platform based on IoT technology. It includes an IoT local network for collecting animal data and a cloud platform with processing and storage capabilities for autonomous shepherd ovaries in the yard area.
Asuka Noda, et al., 2017	Animal Monitoring	The purpose of this article is to monitor and analyze the behavior of small animals, the system can inform users of IoT sensor events via Twitter and messaging service. Additionally, their states are saved in the Google Spreadsheet. Then we can analyze the behavior based on the records.

Table 1: IoT in Agricultural Monitoring

## 2. IoT in Agriculture Controlling

IoT control systems use a two-way information channel, unlike the monitoring system, where the user has a one-way information channel for data transmission via WSN (Wireless Sensor and Actuator Network), a process state controlled by the IoT system to control a set of actuator devices. A new method of communication was added and instructions could be sent back to the equipment deployed in the farm. This system helps to reduce the farmer's water use and facilitates optimum use of pesticides and fertilizers. Overall, solutions with control systems can save farmers money by providing data sensor-based mechanisms for water, fertilizer, pesticide and electricity use. In this article, the following subdomains are considered: Irrigation, Fertilizers, Pesticides, Lighting and Access Control.

Authors and Year	Sub-domain	Observations
Muhammad Shoiab Farooq, et al., (2009)	Illumination Control	This article presents a systematic review of the literature that presents a discussion of high-quality selective research articles published in the field of IoT-based agriculture. The study was conducted using a systematic methodology and 67 studies were selected.
Dušan Marković, et al., 2016	Illumination Control	The IoT based monitoring and control system model presented in this paper can be used in farms. The IoT-based system is capable of connecting physical objects on the farm and allowing them access via the Internet, thus allowing users to remotely monitor production conditions and the production process.
Dr. J. Jegathesh Amalraj et al., (2019)	Irrigation Control	This study focus on Smart farming systems ensure high productivity through efficient use of water. Automation of irrigation control process using discovered environmental parameters. With the help of the above mentioned technologies, smart irrigation can be automated, the main benefits of which are increase in productivity, reduction in water consumption and less soil erosion.
V. Ramchandran et al, (2018)	Irrigation Control	The investigation introduced automated irrigation systems to reduce water use in agriculture, combining Internet of Things (IoT), cloud computing and optimization. Irrigation systems are automatically detected by the deployment of low cost sensors to detect instability of interest such as pH, temperature, humidity, soil type and climatic conditions. Data Spec is stored on the cloud service for data monitoring and storage. Then a corrective model was proposed to reduce water consumption and add barriers to modeling physical conditions.
M. Akshaya et, al. (2009)	Fertilizer Control	The purpose of this project is to collect NPK fertilizers and water in a tank with a block. It has three modes, from which the user can select one of the following: manual mode, automatic mode, and smart mode. By measuring the ratio of temperature and humidity in the soil, and this data will be continuously collected in the IoT module. The data collected will be stored in the IoT cloud. If there are any changes in the predetermined data, it will be indicated in the mobile phone, and the required amount of fertilizer will be displayed on the liquid crystal display.
Lavanya G. et al, (2019)	Fertilizer Control	This paper presents the Internet of Things (IoT) -based system, which designs a novel nitrogen-phosphorus-potassium (NPK) sensor for light-dependent resistivity (LDR) and light-emitting diodes (LEDs). The principle of colorimetry is used to monitor and analyze nutrients in soil. The selected data is sent to the Google Cloud Database by NPK sensors designed from selected farms to support rapid retrieval of data.
Archana Chougule et, al. (2016)	Pesticide Control	This study focus on the automated method for creating IPM technology as a web technology language document and explain how it can be made available to farmers as an IoT application.
Amaresh A M et al., (2020)	Pesticide Control	This article suggests a practical structure for pesticide Control. The developed system is more efficient and more advantageous for farmers. It provides information about intruders in the agricultural field via

		warning message to the farmer, if the Android phone is not working or is in vibration mode, a voice warning message is sent to tell the farmer the problems caused in the field. The system can be used in the current covid-19 scenario to spray disinfectant chemicals around a city without manual intervention. Using such a system in the field will certainly help protect crops from intruders. As part of this project, the Agribot robot controlled by IoT for spraying pesticides in agriculture was designed, built and demonstrated.
MOHAMED AMINE FERRAG et. al., (2020)	Access Control	In this article, writer look at the state of the art of existing IoT-based security and privacy solutions for green agriculture. Author have provided an overview of the four-tiered agricultural architecture based on the Green Internet of Things. Through extensive research and analysis, we have been able to classify IoT-based threats against green agriculture into five categories, including attacks on privacy, authentication, confidentiality, availability and integrity.
Waleed Abdallah et al (2018)	Access control	The study found that barriers to the use of technology in greenhouse agriculture include basic prices, lack of proper training and education for farmers, and limited government resources. This system can be used for different products in different areas. This is done by selecting the values of the system parameters (temperature, humidity, irrigation, etc.) according to the specific greenhouse requirements.

Table 2: IoT in Agricultural Controlling

### 3. IoT in Agriculture Prediction

In the field of forecasting, excellent research has been discussed to provide tools and information to support decision making by farmers. For these functions, the system has specific modules in the architecture, and for the system, the predicted variables are grouped as environmental conditions, production estimates, and yield growth.

Authors and year	Sub-domain	Observations
Hiram Ponce and sebasitan (2019)	Environmental conditions	This article presents the Internet of Things (IoT) system for forecasting weather conditions inside the fence, i.e. a model of an artificial hydrocarbon network, using artificial intelligence by means of temperature, observation education method. It allows you to predict temperatures in remote locations using web service information, comparable to field temperature sensors.
Schubert Rodriguez et al, (2017)	Environmental conditions	This article presents the Internet of Things (IoT) system for Environmental conditions. Data mining technology is used to identify behavior patterns that predict the environmental conditions captured by sensor networks.
A. Kocian et al. (2020)	Crop Growth	The article presents an IoT-based agricultural decision support system for growing crops. A dynamic Bayesian network (DBN) links parameters indicative of crop development with environmental control parameters through unobserved (hidden) Markov states.
Xiangyu Hu and Songrong Qian(2011)	Crop Growth	This article promotes the idea of integrating crop growth models (CGMs) into an agricultural IOT application to make the system smarter and more adaptive.
Hemain Lee et al., (2017)	Diseases Based on Symptoms	This article suggests a practical structure to reduce the frequent use of insecticides and fungicides and to predict when the pests appear in order to lower the appearance of pests. Therefore, weather stations near the orchard have been installed and used to analyze the correlation between pests and weather data that had a large effect on pests. We proposed a system that provides disease and pest prediction information so that farmers can quickly control them.

Yoganand S et al, (2020)	Diseases Based on Symptoms	In this article, we have used IoT, a sophisticated and simple method for efficiently monitoring crops in agricultural fields. They monitor soil conditions and monitor crop diseases. This application manages the peanut plant via webcam using IoT. Data must be collected and retrieved from anywhere.
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Table 3: IoT in Agricultural Prediction

#### 4. IoT in Agriculture Logistics

In the logistic area, key findings are being discussed to investigate the flow of components and provide information to support customer demand. Indicates information from producers to customers. For these purposes, the system has specific modules such as agricultural production, transportation, acquisition, storage, packing, loading and unloading, distribution and other related activities. Related studies are classified as commercial and transportation. Table 4: IoT in Agricultural Logistics

Authors and Year	Sub-domain	Observations
Sasi kumar A. et al (2018)	Storage	In this article, intelligent storage systems for agricultural purposes are developed using IoT for viewing and managing the storage environment manually and automatically. The Ethernet shield for Arduino is used to store data in the MySQL database and communicate with sensor data and a web server is installed.
Mokshi Vyas et al. (2019)	Storage	The main goal of this article is to suggest a method for storing onions in a grid system that will help reduce the degradation of onions due to temperature and humidity. If a single bulb starts to bloom while storing onions, the system sends a message to the farmer. This will help increase onion production and save farmers from huge economic losses.
Junhun Ruan et al (2019)	Transport	This article focus on the implementation of IoT systems in agriculture from the growth cycle to the life cycle of agricultural products. In the lifecycle, there are emerging finance, operations and governance (FOM) challenges in implementing green IoT systems in agriculture, such as IoT financing, supply chain and big data finance, recharging and fixing network nodes, and IoT data. Control.
Nomusa Dlodlo and Josephat Kalezhi (2015)	Transport	The purpose of this study is to investigate the possible contribution of Internet Material Technology (IoT) to poverty alleviation in these rural areas. This article provides examples of IoT to reduce the agricultural needs of these communities for crop farming, climate forecasting, wildlife management, forestry, livestock farming, market identification and rural finance. Has been identified.
Gunawan Witjaksono et al. (2017)	Packaging	This paper introduces the idea of using the Internet of Things (IoT) in agriculture, quality assurance and food safety. A mobile application (app) for the IOT technology sensory layer has been developed, and the application suggests that freshness of food can be tested by examining the food image and comparing it with the reference image. Food health information, whether fresh, good or bad, can be communicated to all consumers and food controllers through the network and application layers of IoT technology.
Mirjana Maksimovic et al. (2015)	Packaging	This paper explores IoT applications in food packaging and transportation, based on the fact that food production and packaging units are the most important point in food production.
Liheng Zhang (2016)	Distribution	This study states increase the transparency of management, each company reacts to market changes in the supply chain, reacts in a timely manner to the risk of uncertainty.
Z. Li (2016)	Distribution	Researcher want to implement the Internet of Things, IoT and technology in the field of agricultural distribution to solve quality and safety issues. Improves the efficiency and management of agricultural logistics, provides information on agricultural supply and demand, and assists in monitoring the logistics process. This effectively

		reduces the cost of distributing agricultural products and provides producers, distributors, and consumers with a more efficient, convenient, and accurate method of supply chain information services.
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Table 4: IoT in Agricultural Logistics

### III. CHALLENGES OF IoT IN AGRICULTURE

Adopting IoT with agriculture has thoughtful benefits for us, however, there is still a demand for conflict situations through IoT in agriculture. The biggest demand scenarios faced by the IoT with agriculture are information loss, excessive adoption costs and security concerns. Most farmers are not aware of the implementation of IoT in agriculture. The big problem is that many of them are against new ideas and do not need to benefit individually. The quality factor that can be completed to enhance the effectiveness of IoT is to inform farmers about the use of various technologies, such as drones, sensors and IoT gadgets, and they can easily provide explanations and real-world examples.

Challenges Faced by Farmers in adopting IoT for Agriculture:

- Poor Internet Connectivity in Farms:** Most farms are positioned in far off places in which internet connectivity may not be robust sufficient to facilitate rapid transmission speeds. In addition, traces of oral exchange can be blocked by crops, canopies, and various physical barriers. He observes that those elements power statistical transmission fees and they are gradually imposed to increase the accuracy of technology in agriculture. With the introduction of big data, those fees should increase rapidly.
- Disrupted cloud connectivity :** Like other IoT systems, FarmBeats is cloud-centric, in this case the Microsoft Azure platform. However, the network connection in farmers' homes is now not reliable enough to transmit large units of data to the cloud for analysis. Additionally, farms are likely to experience repeated interference, which also has a terrible effect on attitude towards the cloud.
- Lack of infrastructure:** Even if the farmers undertake IoT generation they won't be capable of take advantage of this generation because of terrible conversation infrastructure. The farms are located in remote areas and a short distance from the internet. The farmer wants reliable access to crop records from any location at any time, so communication difficulties can make the sophisticated tracking gadget useless.
- High Cost:** The tools required to implement IoT in agriculture are expensive. Although the sensors are the least expensive component. Automated devices are more expensive than manually operated devices because they include fees for the Farm Control software program and access to document data in the cloud. To make more profit, it is a big milestone for farmers to spend money on technology, but it will be difficult for them to create early funding for the established era of IoT on their farms.
- Insecurity:** Since IoT gadgets interact with legacy devices that have the right to access a network connection, there is no guarantee that they will be able to access drone mapping statistics or sensor readings through the public communication media. An enormous amount of statistics is being accumulated through the agricultural structures of the Internet of Things, which are difficult to protect. Someone will get unauthorized right to access IoT companies database, as well as to process and monitor statistics.

### IV. CONCLUSION

This article provides a systematic review of the literature, including a discussion of selected, high-quality research articles published in the field of IoT-based agriculture. The classification framework for the use of IoT in agriculture has also been discussed. This research study has also highlighted the various challenges of IoT in agriculture. This study is very useful for farmers, researchers, professionals and decision makers working with agricultural institutions and for others working on IoT-based technologies for smart agriculture.

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## ARTIFICIAL INTELLIGENCE IN FINANCIAL SERVICES

Mr. Jitendra Kumar Mishra

**ABSTRACT**

*This study explores the application of Artificial Intelligence (AI) on the various financial services such as portfolio management, credit ratings, exchange rate and trading etc. which is been supported by various examples where companies have used and using AI for increasing their efficiency and to have competitive advantage.*

*Financial Institutions are pioneer of the application of AI in business and rate this is increasing exponentially. AI is one of the reasons for adaption of changes in financial services which finally reduces cost and help in bringing operational efficiencies.*

**INTRODUCTION AND BACKGROUND –**

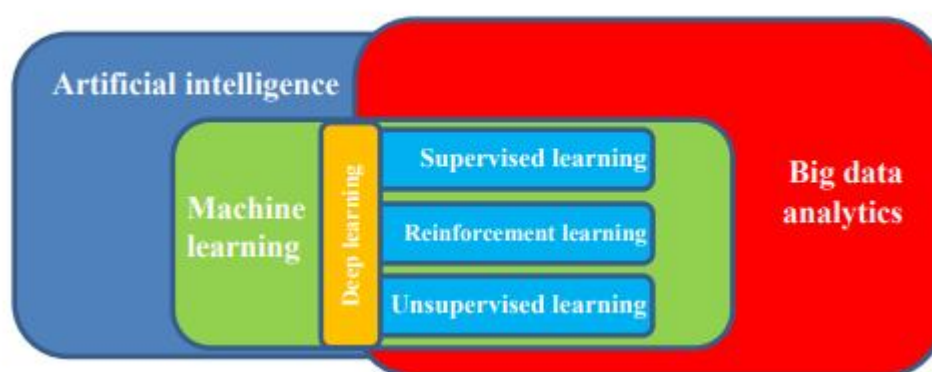
Application of computational tools to address tasks requires human sophistication is termed as “Artificial Intelligence (AI).” Existence of AI is from several years, right from the use of Computers from simplification to storing data. They have been using is diagnosis of diseases, language translation and now penetrating in financial sector.

AI is form of technology which finds loopholes and bottleneck in system, analyzes the situation and take decision based on algorithms. AI is also a self-learning system which implements decisions on its own and thus need to have human control on system.

AI is bringing rapid changes in financial operations and regulations, especially in the field of Risk Management of Projects, Fraud Detection in Banking sector, TradingSecurity, Portfolio management and calculation of rate of return in future by analyzing complex graphs of market.

AI uses “Big Data Analytics” which is a combination of supervised, reinforced and unsupervised learning along with machine learning. Machine learning deals with optimization, predication and categorization of data made available from past or learned through experience (without human intervention).

- a) Supervised Learning –Algorithm present in memory
- b) Unsupervised Learning – Algorithm build after experience
- c) Reinforcement Learning – Algorithm is present but can be changed as per experience. e.g. Driver less Cars



Senior MD of Accenture Finance and Risk Services, Steve Culp predicted that ‘AI will be disruptive force in Financial Services and will restructure model and process.’ But due to trend, rising competition, digitalization and rapid changing technology adopting AI is the only option available for finance sector.

**Keywords –**

AI, Trading, Fraud Detection, Portfolio Management, Forecasting, Banking Sector

**CURRENT APPLICATIONS OF AI-  
Financial Services**

1. **Fraud Detection** –In terms of Insurance claims, Credit and Debit card defaulters, illegal transfers and transfer scams.

2. **Forecasting** – Numerical value predication to achieve maximum impact on minimum cost, promotion predication, demand prediction.
3. **Analysis of large volume data** – Analysis of huge data related to help desk, news articles and complex graphs of stock market along with calculation and prediction of expected risk and return.
4. **Screening** – Credit model for business load, home loan, credit card load and thus reduces clerical workload
5. **Portfolio Management** – To establish optimal investment strategies. Use to robo-advisory services enhances the recommendation of stocks in portfolio.

E.g.1. Use of AI by Schwab Intelligent Portfolios (2017) and Betterment (2007) companies to provide optimal portfolio choice and automated rebalance.

E.g. 2. Uses of Platforms/Software's like NEAT and BOLT by NSE and BSE respectively helps to form graphs within seconds, can be a form of AI used by India.

#### **BANKING SECTOR –**

1. **Smart Wallets** – Smart wallets are trending in customers satisfaction and widely accepted by all service provider and even the vendors. E.g. PayTm, Paypal, PayUMoney, FreeCharge etc. This wallet reduces dependency on absolute cash and help to reach money to great levels.
2. **Voice Assisted Banking** – By voice commands and touch screens. Flexibility to choose regional language, find information and connect to various financial services. This reduces human errors and increases systematic efficiency.
3. **Block chain Hasting Payments** – Advantage in terms of real-time payment process, hastening up the procedure of payment which leads to increase in support and satisfaction.
4. **Digitalization instead Branch Lines** – Document digitalization and use to digitalization for banking process reduces the lines in branch and helps to increase productivity.

#### **LIMITATIONS INVOLVE WITH AI-**

1. **Consumer Privacy** – Various action and laws have been made and implemented across the globe related to security of customer's data. Recently, Facebook stopped using AI for clouding process after the use of data by illegal users.
2. **Technological Complexity** – Due to regular updating technology, it has become difficult to adopt a particular one for a particular task. New AI is also reducing burden of using multiple technology by one, but it require a lot of testing to be done at higher scale.

#### **ETHICAL CONCERNS WITH AI –**

- a) potential of automation technology to give rise to job losses
- b) need to redeploy or retrain employees to keep them in jobs
- c) need to eliminate bias in AI that is created by humans
- d) the effect of machine interaction on human behaviour and attention
- e) fair distribution of wealth created by machines

#### **ADVANTAGES OF AI-**

Due to use of AI following are the changes takes place in Financial Services-

1. Decision making has become quiet convenient when problem is too complicated.
2. Reduction in process time and increase in operational efficiency.
3. Initial detection of frauds and record tracking of defaulters.
4. Competitive advantage over others

#### **CONCLUSION-**

Although there are some concerns with AI but those will be resolve by the advancement and time. Overall AI has application on every activity in Financial Services which going to change face of every sector.

AI will helpful to find data, analyze data and come to a decision where humans are lacking in terms of time and complexity. It will strategies the future of Finance Sector.

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**A REPORT ON IMPACT OF COVID 19 ON MUMBAI DABBAWALAS**

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**ABSTRACT**

*If you are a Mumbaikar, it is pretty sure at some point or another of your life you must have heard about the famous Dabbawalas of Mumbai. The dabbawalas constitute a lunchbox delivery and return system that delivers hot lunches from homes and restaurants to people at work in India. But with the pandemic Covid 19 Mumbai's quintessential "Dabbawalas", who fed Lakhs daily are seeking to help to feed their own kith and kin. Based on primary research and more recent literature, this paper provides updated perspectives on the dabbawala business with special focus on the sustainability of their business model in the Pandemic situation*

*Key words – Dabbawalas, Pandemic, Sustainability*

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**HUMBLE BEGINNINGS**

In her book 'Mumbai's Dabbawala – The uncommon story of the common man', one of the finest accounts of the dabbawalas' amazing 130-year journey, noted Marathi writer Shobha Bondre notes that the business of ferrying lunchboxes from homes to offices and back started in 1890, when Mahadeo Bacche, a migrant labourer from Pune district's Maval taluka, came upon an innovative idea while working as a loader at the Bombay port. Long before the restaurant business mushroomed and the famous *khau gallis* (street food lanes) were established, most white-collared workers in the Fort area used to carry lunch from home. Eyeing an opportunity, Bachhe started collecting the lunchboxes from homes and delivering them to the offices in the area.

Bachhe soon recognised the potential of this business and called other unemployed men from and around his village to join him. The following decades saw extensive reclamation by the British rulers, leading to the city's rapid geographical expansion and population growth. The extension of the suburban railway also created enhanced employment opportunities with assured incomes, which drew more men from western Maharashtra to work as tiffin delivery boys. They organised themselves under the Nutan Mumbai Tiffin Box Suppliers Trust, a charitable organisation, which, in 1956, was formally registered as the Nutan Mumbai Tiffin Box Suppliers Association (NMTBSA). Clad in their trademark uniform of white pyjamas and shirts and donning the 'Gandhi *topi*', these men from Junnar, Rajguru Nagar, Sangamner, Akola, Mulshi, Ambegaon, and several other talukas and villages around Pune eventually came to be recognised as the 'dabbawalas' of Bombay.

As the city as well as their clientele grew, so did the logistical complexities of the tiffin delivery service. Comprising a bunch of men who were mostly illiterate or early school dropouts, the dabbawalas came up with their own unique colour coding system that ensured that the tiffins were delivered efficiently and accurately. Riding a bicycle, a dabbawalla would collect lunchboxes from homes by 9:30 AM. The three- or four-tiered lunchbox would be put in a unique colour-coded tin canister, the 'dabba'. Finishing his daily morning round of about 30 homes, the dabbawala would ride to the nearest suburban railway station, where other dabbawalas too would have gathered from different areas. They dabbas would get quickly sorted as per the delivery area-specific colour codes and loaded on the trains. The loading and off-loading of dabbas would happen at all stops along the journey. At each station, the offloaded dabbas would be sorted once again for delivery to the respective offices by 1 PM. Once picked up, a dabba would thus change six to eight hands before getting delivered to the office, without a single mix-up. The empty dabbas would be collected at 2 PM, and following the same pattern, make their return journey to each home by 6 PM.

**NO-TECH SIX SIGMA OPERATIONS**

Over the years, the dabbawalas continued to hone their logistics with finesse. They shot to limelight in 1996, when their work was captured in a documentary titled 'Dabbawalas, Mumbai's Unique Lunch Service' followed by an article 'Fastest Food: It's Big Mac vs Bombay's Dabbawalas' published by the Christian Science Monitor in 2001 and another full-length documentary by the Carnegie Mellon University. However, their biggest achievement came when Prince Charles made a scheduled stopover at the Churchgate station during his official visit to Mumbai in 2003 to interact with the dabbawalas. So impressed was the Prince of Wales, that he invited two NMTBSA office bearers to attend his

wedding with Camilla Parker Bowles two years later. In 2005, IIM Ahmedabad published its research paper titled 'World Class Logistics Operations: The Case of Bombay Dabbawallahs', while Richard Branson, founder of Virgin Group, spent an entire day with them, learning their tricks of the trade. In 2001, Forbes magazine awarded the dabbawalas the Six Sigma certification for 99.99 percent accuracy – one mistake per 16 million transactions. The Six Sigma certification was once again accorded to the dabbawalas by a Harvard Business School study conducted in 2010. Four years later, the dabbawalas' logistics system was introduced as part of a course taught by UC Berkeley's Graduate School of Journalism. The world-class service delivery standards with zero technology input have been as an enigma to unravel for global logistics companies including FedEx and e-commerce giants Amazon and Flipkart.

### **ONCE FEEDING LAKHS, DABBAWALAS ARE STARING AT STARVATION**

Currently, around 5,000-odd dabbawalas ferry over 200,000 dabbas daily. They earn quite a meagre salary of Rs. 8,000 per month. Most of them reside in slums, which were the hotbeds of Covid-19. As the news of their financial woes spread, several city-based NGOs and film stars came forward to help them with daily rations. In association with the Make Earth Green Again (MEGA) foundation, Maharashtra cabinet minister Aslam Shaikh, who is also the city's guardian minister, distributed ration kits to 2,500 dabbawalas. He also urged the Chief Minister to announce a direct benefit transfer of up to Rs. 5,000 to the bank account of each dabbawalla till such time the local trains resumed full-capacity operations and offices started functioning normally across Mumbai. But such help has been sporadic, fragmented and mostly short-lived.

Following the death of Santosh Jadhav, a dabbawala, to Covid-19 on 24 June, the NMTBSA has renewed its plea for Rs. 2,000 per dabbawala as monthly sustenance money. Their plea, is reportedly, still under consideration. Shiv Sena, the party that leads the incumbent tri-partite Maha Vikas Aghadi government in Maharashtra was formed by the late Bal Thackeray, the current Chief Minister's father, to restore the rights and privileges of the "sons of the soil" and safeguard the "Marathi *asmita* (pride)". Not many in Mumbai embody the Maharashtrian identity, spirit and cultural ethos more than the dabbawalas. It is high time the Shiv Sena lived up to the cause for which it was supposedly established.

### **SUGGESTIONS**

The government should immediately start the direct benefit transfer of Rs. 2,000 per dabbawala per month as sustenance money. This should be continued till at least June 2021, in line with the free rations scheme of the central government. The government must also disburse an interest-free loan to the NMTBSA and the cooperative credit society managed by the association so that each dabbawala has access to adequate funds in case he or any member of his family needs hospitalisation for Covid-19.

### **CONCLUSION**

The glorious contribution of the dabbawalas was etched forever on the city when a larger-than-life statue of a dabbawalla was installed at the Haji Ali junction in 2017. The hands that fed lakhs of citizens daily are today in dire need of financial help to feed their own families. It is time for the citizens, and importantly, the government, to rise above mere symbolism and help these men who through their resourcefulness and imagination put Mumbai on the world map.

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**FINTECH: “OPPORTUNITIES AND CHALLENGES WITH SPECIAL REFERENCE TO RURAL INDIA”**

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**ABSTRACT**

*The FinTech industry in India is still at a nascent stage but is growing rapidly, fuelled by a large market base, advancement in technology, the ever-evolving customers and promising government policies and regulations. This sector has gone through a remarkable transformation since past few years as it continues to be supported by innovations across multiple streams—payments, digital lending, e-wallets, loans, insurance, and others have seen a radical growth curve. However, the knowledge of digital financial services was restricted to the bigger cities of India while rural India struggled to make its way through cash problems. There are no doubts about the growing requirements of digitization across the country and since rural India is home to millions, it contributes largely to the country's Total GDP. However, the financial services market in rural India is highly left untapped and the maximum percentage of the population in remote areas are unbanked users OR it comprises of those people who still make their transactions through cash.*

*Hence the study has been made to understand the rural scenario of the present population. After the introduction of JAM (introduced by our Prime Minister Shri Narendra Modi), lots of dominant changes have been found in rural areas. The paper then has listed some examples of FinTech apps available for rural inclusion. After the data collection from secondary sources, it was inferred that various challenges were faced by the rural people in the adoption of these apps. The paper then focuses on the various opportunities available to the FinTech players to target the untapped rural markets. Finally, a model is being proposed to encourage rural population to use FinTech apps.*

*Keywords:- FinTech, JAM, Financial Inclusion*

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**❖ INTRODUCTION:-**

Financial Technology (FinTech) refers to the use of software and digital platforms to deliver financial services to consumers. Over the past couple of years, the term FinTech has evolved from being a buzzword among tech-savvy business executives to an organized sector characterized by hyper growth. It has come to include all technological innovations that help in the faster and more efficient delivery of financial services, as compared to the traditional methods. These financial services include financial literacy and education, insurance and lending, payments, investments, etc. FinTech has created a niche of its own in the recent years, owing to its huge potential.

Even after 70 years of independence, a large part of the Indian population remains outside the ambit of the formal financial sector. As per the Reserve Bank of India's report on financial inclusion, more than 70% of farm households have no access to formal credit, and only 60% of households avail the banking facilities. The situation is worse in low income states such as Bihar, or North-Eastern states like Arunachal Pradesh and Mizoram where financial inclusion is even lower than the national average. Factors like restricted internet and cell phone access create an additional layer of complexity in enabling their access to financial services. On the other hand, Micro, Small and Medium Enterprises (MSMEs) desirous of procuring funds from the formal financial sector are not able to access institutional credit. In fact, nearly 80% of MSMEs end up being self-financed, and 32% end up relying on friends or family networks for credit, with an additional 12% turning towards informal banking networks. Improving only at a snail's pace, the relevant statistics paint a rather gloomy picture of the Indian economy, making clear that we urgently need to ameliorate access to finance in India.

**❖ DRIVERS OF FINTECH IN RURAL INDIA:-**

In India, the key enabler of the digital ecosystem which has given impetus to the financial inclusion movement is the JAM Trinity which was first proposed in the Economic Survey of India in 2014-15, the overarching framework being: Jan Dhan for financial infrastructure, Aadhaar card for information infrastructure, Mobile technology for delivery infrastructure.

1. **Universal Electronic Bank Account Access:** The Prime Minister's Jan Dhan Yojana, launched a massive drive to open no frill bank accounts for the unbanked. As of March 2017, the scheme has opened 278.4 Million accounts. Only 24% of these accounts remain zero-balance.(PMJDY Data).

2. **Universal Identity Database (Aadhaar):** India maintains a universal electronic biometric identity database by issuing "Aadhaar" cards. So far, 93% of the population has Aadhaar cards that are linked to bank accounts and welfare programs. The National Payments Corporation of India (NPCI) launched technology systems which uses Aadhaar number as a central key for electronically channelizing the Government benefits and subsidies.
3. **Improving Last Mile Access to Financial Services:** Reserve Bank of India licensed 11 payment banks, entities mandated to facilitate electronic payments. The licenses were awarded to mobile networks, the national postal service and mobile wallets that were expected to leverage their wide geographical networks. RBI also licensed small finance banks that are required to provide the entire spectrum of banking services to the unbanked sector including small businesses and employees in the unorganized sector. (Sa-Dhan, 2017).

❖ **FEW EXAMPLES OF FINTECH APPS AVAILABLE FOR RURAL PEOPLE:-**

	<b>FinTech Apps Available</b>
<b>I. Agricultural sector</b>	<p>a) <b>VDrone Agro</b> – Using the advanced tool of thermal imaging, VDrone Agro uses drone cameras and an inbuilt software that helps read thermal images of food making plants.</p> <p>b) <b>ARIES agro app</b> – This app provides complete agricultural solutions and the company has appointed different sales persons who go and meet the farmers personally.</p>
<b>II. Healthcare</b>	<p>a) <b>Practo</b> – is the appointment booking system which allows patients to view real-time availability and book instant appointments with doctors &amp; practices, using Practo's website and smartphone apps.</p> <p>b) <b>"Smart Health"</b> – The app will be used by community health workers called as ASHAs, who will be trained to screen and identify people suffering from diabetes or at high risk of the disease in the rural communities..</p> <p>c) <b>Neurosynaptic</b> -. The company aims to enable access to affordable healthcare in rural and semi-urban areas, using its cloud-based telemedicine platform called ReMeDi (Remote Medical Diagnostics). The software claims to provide screening and primary diagnosis by connecting patients with doctors.</p>
<b>III. Education</b>	<b>Google 'Bolo'</b> – Google has launched a speech-based reading-tutor app called Bolo for Android-based smartphones to help children in rural India with their reading skills. The app is aimed at helping kids who are unable to go to schools or have no access to it. The Bolo app can be downloaded for free from the Google's Play Store. The app can also work offline and does not require an active internet connection.
<b>IV. Payments</b>	<p>a) <b>BHIM</b> - Bharat Interface for Money (BHIM) is a payment app that lets you make simple, easy and quick transactions using Unified Payments Interface (UPI).</p> <p>b) <b>AePS (Aadhaar enabled Payment system)</b> - AePS is a bank led model which allows online interoperable financial inclusion transaction at PoS (MicroATM) through the Business correspondent of any bank using the Aadhaar authentication.</p> <p>c) <b>Ezetap</b> - aims to connect small towns and villages in India with businesses through its mobile Point of Sale (mPoS) services, which it says will also help in financial inclusion.</p> <p>d) <b>ToneTag</b> -. The firm has created an open architecture, wherein customers have to dial a toll-free number and register their bank account number, VISA or MasterCard. They can then make payments by just placing the phone close to a device (a phone or PoS) that would accept the amount.</p>
<b>V. Entertainment</b>	<b>Digiplex mobile theatre vans</b> – These vans which are run by Picture Times offer their rural audiences high quality viewing experience in villages and also a platform for great schemes. They use the screen not only for movies but also for launch of several central / state government schemes and various apps.

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**❖ CHALLENGES FACED IN ADOPTION OF FINTECH APPS:-**

1. **Digital Illiteracy** – A major population of the rural areas is not literate and hence FinTech or digitization is not very successful in these areas. Basic education or financial literacy is a must for anyone to be able to operate these apps on their own.
2. **Low connectivity of internet** – Internet connectivity and its speed is essential to be able to operate most of the FinTech apps since they are usable only in 'online' mode. However few apps have been designed in such a way that they can be operated 'offline' too.
3. **Trust factor** – People in rural areas lack some trust factor as well with regards to the application and uses of these apps, since they feel it may not be very safe to use them and also they are little reluctant to share their personal/confidential data on a digital platform.
4. **Behavioral issues** – Behavior of people in rural areas is also a big challenge with regards to motivating them to make use of digital technology or FinTech apps. Sometimes, their behavior is not very adaptive to change and hence there is a strong resistance in them for any new beginning.
5. **Lack of security** – Most of the apps do not have any proven track record of being completely safe and secure. So, the authenticity of transactions and confidentiality of customer data is at risk and hence the insecurity.
6. **Lack of customer data** – The lack of customer data is also a very big challenge, since you cannot cater to a particular market if you do not have reliable data to work upon.

**❖ OPPORTUNITIES AVAILABLE IN RURAL AREAS FOR GROWTH OF FINTECH APPS:-**

FinTech startups have made use of new technologies and disruptive approaches to come up with superior offerings. This trend is expected to continue through the coming years, with the number of outsiders continuously increasing. A thorough deep dive into specific segments leads to the conclusion that the following trends should play a strong role in the coming years

1. **Digital literacy** – If created effectively, awareness, especially in rural areas can help a lot of people reap the benefits of digital technology.
2. **Penetration** – Due to lack of awareness, FinTech apps have not yet been so successful in terms of their reach in rural areas. So, there's a lot of scope whereby more penetration would mean more consumer base which in turn would mean more and more digital usage.
3. **Customization** – Currently available apps (barring a few) are more or less standard in terms of their usage and benefits, while customization can really boost usage, since it would mean the app is able to cater the needs of all types of people.
4. **Innovation and collaboration** – It is crucial to elevate the reach of digital payments and financial services. There should be more partnership with various government authorities, NGO'S and big corporate houses to work towards developing the habit of using FinTech apps. Big companies can show this as their CSR initiative.
5. **Tapping unemployed population** – The common problem what rural people face is of unemployment. There could be ed-techs which offer skill development courses online which afterwards would fetch them good jobs.
6. **Special children** - Very few apps for special children residing in rural areas are available FinTech players can work on this area to develop the gifted children of our society.
7. **Offline apps** - More of offline apps should be considered because there are issues related to internet connectivity and electricity too.
8. **P2P lending** - Rural people still depend upon unorganized sector for availing loans. More of Digi apps are required in this area to fulfill their credit needs and thus leading them to become successful entrepreneurs.
9. **Regulatory monitoring** - There is a strong need of having a regulatory body for FinTech apps which would lay down the various guidelines thus building trust factor among people.
10. **Breaking the conservative barrier** - FinTech startups need to instill greater confidence among Indian customers, already known for being conservative in their financial preferences.

**❖ SUGGESTED MODEL:-**

**Following can be incorporated to curb down the various challenges faced by rural people Model Name: "Digi Mela"**

**Features of Digi Mela:-**

1. Once in every two months this digi mela would be held at various places in rural areas.
2. Area of mela would be a free WI-FI zone.
3. It would look like a typical mela where there would be different stalls of digi apps, some shopping items and gaming zone too. But the only condition attached here is that they have to pay via digital app or a BHIM card.
4. There would be live screening of different apps available on digital platforms to solve their various financial needs and day to day problems that they face. Once in a while there could be short speeches also to educate them about the various apps.
5. There would be facilitators around to help them download various apps which they can use for their day to day transactions.
6. To ensure that people use these apps they would be told to use them daily. From the live trackers of this digi app data will be collected and who so ever makes highest use of this app would be rewarded. To note rewards would be digital only.
7. One another striking feature of this mela would be that there would be a special Ombudsman Counter. This counter will address various problems associated with the installation of these apps and if any other complaints people have after installation.

**❖ CONCLUSION:-**

FinTechs indeed have a sea of opportunity awaiting them considering the growing mobile and internet usage. The need of the hour is to think out of the box and introduce innovative solutions and services to effectively use digital channels in serving this segment which is still not digitally and financially included. Reaping this benefit requires strengthening of institutional capacity, expanding outreach to stakeholders and adopting a cross agency approach involving relevant ministries and agencies.

In summary, FinTech has tremendous potential to further revolutionize access to finance in India. Lastly, a very famous saying by a highly reputed ex-President of India:-

*"You cannot change your future, but you can change your habits. And surely your habits will change your future"*

- Late Dr. APJ Abdul Kalam

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**A STUDY ON “OTT PLATFORMS & DILEMMA OF CONTENT REGULATION” IN ERA OF DIGITAL INDIA**

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**ABSTRACT**

*In a country like India, where recently Internet data got super affordable, it not only created a demand for content consumption but also flood opened the gates for world class content creators to show case their contents to the world's second largest population without any censorship or government regulation on the content of the content. This study tries to figure out does Over the Top (OTT) services showcasing their content need approval and certifications like traditional films played in theatres do from the government owned Film Certification and Censor Boards or it should be a place where nothing should be regulated and progressive content shall be viewed by all and no school of thoughts should be implied to censor or regulate the content. The findings of this study reveal poll opinions about the regulation of government on Over-the-Top services contents.*

*Keywords OTT Media, Content Regulation, Dilemma, Free Speech, Film Certification.*

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**AIM**

To Study why is there a need to regulate or to not regulate content produced & distributed on OTT platforms.

**OBJECTIVE**

To acknowledge various reasons why we need to or we don't need to ask the government to regulate or censor contents on OTT platforms.

**HYPOTHESIS**

There is a need for government to step in and regulate contents of these OTT platforms as many produced contents hurt religious sentiments and popularize obscenity under the label of progressive thinking but at the same time it would bring in monopoly of big corporations in content production and distribution and keep people away from exposure of world class content and their freedom to watch anything.

**INTRODUCTION**

The Over-the-Top services has transitioned and manifested the traditional Television Viewers in India to escape the crap and Idiot Box TV and relive the entire new TV viewing experience by joining the internet 24\*7. There are broadly Ten main Over the Top service providers in India currently and they are namely Netflix, Amazon Prime Video, Disney+Hotstar, SonyLIV, ALTBalaji, MX Player, YouTube Premium, Zee5, Voot, JioCinema. These Over-the-Top services have literally changed the way how Indians in general consumed content before their existence and it all started with hype created by these streaming services on how cool and good their content was and also how people could literally watch global content now at their home sitting by their bed side. What's Important to understand and acknowledge here is that there are reasons why these streaming services sustained in a developing country like India and those reasons are large population of youth and cheap data also relatively low price of subscription to watch world class content on the go at any time on your personal devices. Now this triggered a rise in Over-the-Top Services in country like India. Take for example just going to the nearest cinema hall to watch an amazing international film you will have to go out with someone until you like watching movies alone in a theatre, then sit two hours in the traffic spend on transportation, stand in the long line to buy the expensive heavily taxed tickets and then pay for the over-the-top expensive snacks and then return home thinking about your recent spectacular theatrical experience. But all this not any more with Over-the-Top Services you can watch all your favorite TV Shows, Movies and various other content now at an affordable price of one movie ticket for a whole month. That pulled in a lot of people for these OTT services. Watching anything at any time you want is something a lot of people are inclined towards. Also, now there's something called as personal viewing with these OTT platforms. so, when you go watch a film in theatre you are public viewing with friends and family and when you watch a tv show at your home with friends and family you are family viewing and then when you sit with your laptop on you bed and binge watch a TV show or series that's called personal viewing. These OTT services started the culture of Binge watching which means watching many hours of content in one go and that sounds a bit addictive. Also, what also works with these OTT platforms are the diversity of content that one has the access to and for content creators it's been like never before now they have ample amount of time and space to develop characters and tell a story they want to tell in without have to worry about the box office results and the pressure to add unnecessary bits of contents like

songs and dances and cheesy line that mean nothing. The problem to acknowledge here is that many creators and content on these streaming platforms not necessarily align with thoughts of a community and other group of people which create a dilemma whether content like this should be regulated by the government or shall be left out in the name of freedom of speech and exposure to world class content.

### **REVIEW OF LITERATURE**

Motives of people to subscribe to OTT platforms are generally their services of personal viewing at anywhere anytime on any of their devices, an example of this would be Disney+ Hotstar streaming Vivo IPL Live so people even outside of their house and while doing any of their jobs can actually view live match on their smartphones, gonna are the days when these uses two be fight on polarizing response over watching the match and popular tv show at same time. Another reason could be the production of various types of content and progressive flexible and futuristic ideas there.

OTT platforms have actually introduced the diversity of the content. You're one stop to watch favorites TV shows around the world and informative documentaries could be another reason. The smooth streaming and lightning-fast speed of the internet accessible to everyone could also be one reason among many. Streaming services cannot be threat until local people want to use it against each other's and create nuisance it should let free and people should clearly choose what to watch and what not to. And other paper suggests that streaming platforms and concert with kids can be solved by their parents regulating what their kids chooses to watch and entire government should not be bought in matters like this where an international content viewing experience becomes a joke.

### **RESEARCH METHODOLOGY**

This Study approached Quantitative & Qualitative. A questionnaire was circulated among people consuming OTT services and a telephonic personal interview was also organized to understand their views on the topic, research papers and other online materials were gone through for the research.

Snowball Sampling method was used and the data was transcribed into text for inference.

### **RESULTS & DISCUSSION**

The results of this study done above describe the dilemmas experienced by the consumers of OTT services in various themes; related to streaming services one of which is motive to subscribe to these OTT platforms. They are in general to watch international content and world cinema and learn a lot by watching entertaining and informative documentaries that tell various stories, which gives people an exposure to various cultures backgrounds and incidents in various parts of the world. Another set of people highlighted that kids and young adults including teenagers, as they are very vulnerable to contents like sex, violence, nudity, suicide, mental trauma, anger issues, depressing content, all this can easily affect their beliefs and morals, in their day-to-day life. Some say parental control is enough and there's no need to bring in the government to manipulate the new media. Some say that local content creators use this platform to very cleverly influence and propagate that they're not so positive in believes and they try and show various other cultures and religions in wrong light so the government should actually step in take control of these kind of people who are trying to exploit services like this for their own motivation.

### **CONCLUSION**

This research paper concludes that there is this constant war between, desire for freedom and bringing in the censorship. In order to take a call, the author proposes to have a bigger sample size to understand the audience demand for uncensored content or regulated content. Because of various people have various ideas of freedom and many people stand firm in their opinion of forming liberal societies. It cannot also be underestimated the fact that public views of various factors are more influenced by the media than personal experiences so content of the media needs to be controlled. But at the same time a liberated body needs to be set up who are away from traditional and conservative ideas for censorship at it would be a great injustice in today's internet world.

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## ORGANSATIONAL CULTURE

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## ABSTRACT

*The paper investigates very important topic Organization Culture and its effects. The researcher has found an important construct in research that is Organizational Culture. The research is based on secondary data and explored organizational culture & its effects. Culture is the collection of value beliefs, and behavior of many people .It leads to an increase in organizational performance. There are two terms to understand the concept of Culture- History and shared phenomenon. In first concept, Cultural mores of a society are passed on from generation to generation and in second concept which is basic to culture implies that the cultural ethos's are shared among the members of a society. Organizational performance depends upon organizational cultures. Performance of any company comprises the actual productions and outcomes of any company which are measured against its expected outcomes. The Researcher has found three levels of culture- national culture, business culture, and the occupational & organizational cultures. These levels enhance the effectiveness of management. The Research study includes Concept, Cultural Dimensions, How is Culture created, Effects of culture.*

## 1. INDUCTION

The following important features are taken by Researcher to understand Organization culture in any company

1. **Individual Initiative:** The degree of responsibility, freedom, and independences that individuals have.
2. **Risk Tolerance:** The degree to which employees are encouraged to be aggressive, innovative, and risk-seeking.
3. **Direction:** The degree to which the organization creates clear objectives and performance expectations.
4. **Integration:** The degree to which units within the organization are encouraged to operate in a coordinated manner.
5. **Management Support:** The degree to which managers provide clear communication, assistance and support to their subordinates.
6. **Controls:** The number of rules and regulations, and the amount of direct supervision that is used to oversee and control employee behavior.
7. **Identity:** The degree to which members' identify with the organization as a whole rather than with their particular work group or field of professional expertise.
8. **Reward System:** The degree to which reward allocations are based on employees, performance criteria in contrast to seniority, favoritism, and so on.
9. **Conflict Tolerance:** The degree to which employees are encouraged their conflicts and criticisms openly.
10. **Communication Patterns:** The degree to which organizational communications are restricted to the formal hierarchy of authority. Impact of Culture may be functional and dysfunctional. Strong cultures create considerable pressure on human being to conform but now a day's companies are known for diversity of workforce. Workforce diversity is not only accepted but also encouraged in organizations. Obviously, there develops conflict between the need for conformity and the advantage of having employees with diverse behaviors and strengths. Culture is also considered as a barrier to mergers and acquisitions.

On the positive side, culture in an organization serves the following purposes :-

- Effective control
- Promotion of innovation
- Strategy formulation and innovation
- Strong commitment from employees
- Performance and satisfaction

## 2. REVIEW OF LITERATURE

Review of literature provides us scope to understand the contribution of different scholars in area of Organizational Behavior. Research study is based on findings of Indian and Foreign authors with regard to Organization culture. Review of literature is helpful to understand the importance of the topic and identify the research gaps.

**Abu-Jarad , Yusof & Nikbin, (2010)-** The researcher has written a paper “A Review Paper on Organizational Culture and Organizational Performance”. In paper focused on definition and measurement of organizational culture. The researcher has found relationship between organizational culture and the organizational performance.

**Aktas,Cicek, & Kiyak (2011)-**The researcher has written paper “ The effect of Organizational culture on Organizational efficiency :The moderating role of organizational environment and CEO value”. In today’s increasing competitive conditions, reaching desired organizational efficiency level attracts both academicians and practitioners’ interest much more. Now days in competitive business environment, the factors influencing organizational efficiency are examined with highly increasing significance. Organizational culture is as one of the important factors. The researcher has investigated relationship between organizational culture and organizational efficiency and the impact of environment on this relation. Research also focused on values of self-direction, stimulation, power that leaders have. The individual effect of the organizational leaders on the efficiency strategies is viewed in terms of their values. Researcher has found organizational culture types are related to some organizational efficiency dimensions. Internal and external organizational environment and the top manager’s values are playing a moderator role for the relationship.

**Tedla,Bayeh (2016)-** The researcher has written in his thesis “The Impact of Organizational Culture on Corporate Performance” that Organizational performance depends on effective organizational culture and cultural integration in the corporate. The objective of study was to explore successful strategies that management used to establish a productive organizational culture to improve overall productivity. It is found out in research that this study has potential for the growth of economy and may contribute to social change. The researcher got some answers after research like 1. How to create and maintain an effective organizational culture in an organization? 2. How should we use corporate office culture in providing guidance and direction to improve overall performance? 3. Strategies which are used in organization to link the corporate office culture to company culture in the group.

## 3. Research Methodology -

Research Methodology is the step by step, theoretical analysis of the methods applied to a field of research study. It comprises the theoretical analysis of the body of methods and principles associated with a branch of knowledge.

**Objective of Study-** To explore the Organizational culture and understand its effects

**Data Collection** -The researcher has used secondary data which were collected by following methods:-- Websites, Journals Newspaper, books, Research Project.

## 4. ASSESSMENTS/FINDINGS

The researcher has found following effects of culture in organization....

### a. Effects of Culture

There are various positive effects of Culture:

- Effective control
- Promotion of innovation
- Strategy formulation and innovation
- Strong commitment from employees
- Performance and satisfaction

**Effective control:** Culture can be considered as a control mechanism that shapes behaviors of people. As strong culture seeps through the organization, employees register do’s (for example perform effectively and keep an organization grip on quality) and don’ts (for example involve in poor team work or be disrespected to people).

**Promotion of Innovation:** Innovative and creative ideas are emerging issues in the domain of organizational culture.

**Strategy Formulation and Implementation:** Organizational culture has considerable influence on strategy formulation and implementation, particularly on the latter. Culture provides inputs to the company to adapt a particular strategy.

**String commitment from Employees:** Culture is helpful to provide identity to members and enhances their commitment towards the firm.

**Performance and Satisfaction:** There are four reasons on that basis; we can say that Culture has a performance-enhancement quality. First, strategy implementation is made easy through culture. Second, strong culture is related to goal alignment and people share common goal. Third, high level of motivation is based on strong culture because of the values shared by the members. Finally, strong culture provides control mechanism without the oppressive effect of bureaucracy.

#### b. How is culture created?

Culture is step by step learning process. Organizational cultures face two major challenges that confront every organization: (1) external adaptation and survival, and (2) internal integration.

External adaptation and survival have to do with how the company will find a niche in and cope with its continuously changing outside environment. External adaptation and survival includes some issues as under:-

- Mission and strategy- Finding out the primary objective of the organization, choosing strategies to complete this mission.
- Goals-Setting specific targets to achieve.
- Means- Determining how to achieve the goals, including choosing an organization structure & appraising system.
- Measurement-Setting criteria to determine how individuals and members of team are completing their goals. Internal integration has to do with the establishment and maintenance of effective working relationships among the members of an organization. Internal integration involves some issues as under:-
- Language and concepts- Finding methods of communication and developing a shared meaning for important concepts.
- Group and team boundaries- Establishing criteria for membership in groups and teams.
- Power and statuses- Determining rules for acquiring, maintaining, and losing power and status.
- Reward and punishment- Developing systems for encouraging desirable behaviors and discouraging undesirable behaviors.

An organizational culture is established when members share knowledge and understanding what they generate or grow ways of coping with issues of outside adaptation and international integration.

#### c. Cultural Dimensions

**Levels of Culture:** These levels national culture, business culture, and the occupational and organizational cultures influence the effectiveness of management.

National culture is the main culture with in the political boundaries of the nation-state. This culture mainly represents culture of the human beings with the greatest population or political or economic power. In the language of the national culture, we learn formal education and conduct business. National culture has great importance for international managers who require managing cultural diversities. Business culture shows norms, values, and beliefs that applicable to all aspects of doing business in a culture. Business culture shows the correct and acceptable path to conduct business in a society. Beliefs, attitudes and norms are included in Organization culture that make an organization together and are shared by its employees.

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**CONSUMERS AWARENESS AND SATISFACTION TOWARDSE-MARKETING WITH  
REFERENCE TO MUMBAI CITY**

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**ABSTRACT**

*The main aim of the study is to identify the consumers awareness and satisfaction towards e-marketing in Mumbai City. The study is based on both the primary as well as secondary data. The sources of secondary data were obtained from newspapers, journals, periodicals, and relevant websites were of much support in the collection of information. In this study, the information required by the consumers to adapt them to this new trend of buying was collected from the consumer through well structured questionnaire. Out of 175 questionnaires circulated to the respondents, 150 questionnaires were collected from the users of E-marketing services in Mumbai City. The primary data collected were examined with special reference to the consumers awareness and satisfaction towards e-marketing. It is concluded that there is a significant difference in consumer satisfaction towards e-marketing namely satisfaction towards product, satisfaction towards price and payment and overall satisfaction among different educational qualification of consumers. It is inferred that there is a significant association between age group of consumers and aware about E-marketing. It is concluded that age group is a significant factor determining the awareness about E-marketing.*

**KEY WORDS:** E-Marketing, Satisfaction, Awareness and Consumers

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**INTRODUCTION**

The introduction of internet has created a new market for both manufacturing and service providers. It has been playing an important role for around two decades; and today's generation does not know a life without internet. This has made the world rest in our hands. Internet has been used as a marketing channel with which the consumers were introduced to a new trading pattern. Thus, internet has become the medium which has helped people lead a simpler life. It has helped people to discover new ways of doing the same things which were earlier done in a much complicated manner. This paper studies on consumers awareness and satisfaction towards e-marketing.

**SCOPE OF THE STUDY**

E-marketing has been playing a significant role in Internet and consumers awareness and satisfaction. The availability of internet and its ease of transactions has given an upraise in consumers understanding and decision making power. This paper hopes to study the consumers awareness and satisfaction towards e-marketing in Mumbai City.

**OBJECTIVES OF THE STUDY**

- ✓ To study the consumers awareness towards the e-marketing in Mumbai City;
- ✓ To find out the level of satisfaction of consumers towards e-marketing in Mumbai City;

**HYPOTHESES**

- ✓ There is no significant association between age group of consumers and awareness about E-marketing
- ✓ There is no significant association between gender group of consumers and awareness about E-marketing
- ✓ There is no significant statistical difference between educational qualification of consumers and consumers satisfaction towards e-marketing

**METHODOLOGY**

The study is based on both the primary as well as secondary data. The sources of secondary data were obtained from newspapers, journals, periodicals, and relevant websites were of much support in the collection of information. Towards primary data collection, the relevant details were collected by circulating the well-framed questionnaires to the targeted respondents by contacting them personally in most cases and by reaching them through the mails. In this study, the information required by the consumer to adapt them to this new trend of buying was collected from the consumer through well structured questionnaire. Out of 175 questionnaires circulated to the respondents, 150 questionnaires were collected from the users of E-marketing services in Mumbai City. The primary data collected were examined with special reference to the consumers awareness and satisfaction towards e-marketing.

**ANALYSIS AND INTERPRETATION****Association between age group of consumers and Aware about E-marketing**

In order to examine the relationship between age group of consumers and aware about E-marketing, a two-way table with age group of consumers and aware about E-marketing was constructed. Accordingly, consumers have been grouped into four categories on the basis of their age group. Chi-square test is attempted with the following null hypothesis,

**Hypothesis:** There is no significant association between age group of consumers and awareness about E-marketing

The details of aware about E-marketing among consumers on the basis of their age groups are presented in Table 1.

**Table1: Chi-square test for association between age group of consumers and Awareness about E-marketing**

Age Group	Awareness about E-marketing		Total	Chi-square Value	p Value
	Yes	No			
Upto 30 years	49 (32.7)	12 (8)	61 (40.7)	19.987	0.000
30-40 years	33 (22)	8 (5.3)	41 (27.3)		
40-50 years	20 (13.3)	5 (3.3)	25 (16.6)		
Above 50 years	19 (12.7)	4 (2.7)	23 (15.4)		
Total	121 (80.7)	29 (19.3)	150 (100)		

Source: Primary data

Table 1 highlights that there is a relationship between the age group of consumers and awareness about E-marketing. Age group-wise analysis of aware about E-marketing demonstrates that 32.7 per cent of the respondents who are in the age group of upto 30 years are aware about E-marketing, 22 per cent of the respondents who are in the age group of 30 to 40 years are aware about E-marketing, 13.3 per cent of the respondents who are in the age group of 40 to 50 years are aware about E-marketing, 12.7 per cent of the respondents who are in the age group of above 50 years are aware about E-marketing and 5.3 per cent of the respondents who are in the age group between 30 to 40 years are not aware about E-marketing.

It is inferred from the table 1 that since the 'p' value is less than 0.05. Hence the null hypothesis is rejected that there is a significant association between age group of consumers and aware about E-marketing. Hence, it is concluded that age group is a significant factor determining the aware about E-marketing.

**Association between gender group of consumers and Awareness about E-marketing**

An attempt has been made to test the association between gender group of consumers and awareness about E-marketing, a two-way classification table with gender group of consumers and awareness about E-marketing was formed. Accordingly, consumers have been categorized into two groups on the basis of their gender group. Chi-square test is applied with the null hypothesis as,

**H<sub>0</sub>:** There is no significant association between gender group of consumers and awareness about E-marketing

The Gender wise classification of the respondents on the basis of their aware about E-marketing is shown in Table 2.

**Table2: Chi-square test for association between gender group of consumers and Awareness about E-marketing**

Gender Group	Aware about E-marketing		Total	Chi-square Value	p Value
	Yes	No			
Male	76	19	95		

	(50.7)	(12.7)	(63.4)	15.987	0.000
Female	45 (30.0)	10 (6.6)	55 (36.6)		
Total	121 (80.7)	29 (19.3)	150 (100)		

Source: Primary data

It could be seen from table 2 that there is a relationship between the gender group of consumers and aware about E-marketing. Gender group-wise analysis of aware about E-marketing demonstrates that 121 (80.7%) respondents are aware about E-marketing in which 76 (50.7%) respondents were male and the remaining 45 (30%) respondents were female. Table further demonstrates that 29 (19.3%) respondents are not aware about E-marketing in which 19 (12.7%) respondents were male and the remaining 10 (6.6%) respondents were female.

It is inferred from the table 2 that since the 'p' value is less than 0.05. Hence the null hypothesis is rejected that there is a significant association between gender group of consumers and aware about E-marketing. As such, it is concluded that the aware about E-marketing of different gender group of the respondents differ significantly.

### Educational Qualification-wise ANOVA regarding the Consumer Satisfaction score towards e-marketing

The analysis of variance (ANOVA) on the basis of educational qualification of consumer and score for consumer satisfaction towards e-marketing is shown below in Table 3. It has been documented that the mean score is statistically significant difference between educational qualification of consumers and consumers satisfaction towards e-marketing namely satisfaction towards product, satisfaction towards price and payment and overall satisfaction as  $p < 0.05$  at 5% level of significance. The test of difference has been documented on a parametric scale, using the Analysis of Variance (ANOVA), which has been found to be significant for consumers satisfaction towards e-marketing namely satisfaction towards product, satisfaction towards price and payment and overall satisfaction ( $F = 7.477, 13.405$  and  $7.028, p = 0.000, 0.000$  and  $0.000 < 0.05$ ). The mean score for consumers satisfaction towards e-marketing namely satisfaction towards product and satisfaction towards price and payment are shown to be the highest for the consumer who are secondary school education and the lowest for the consumer who are degree qualification.

The mean score for consumers satisfaction towards e-marketing namely overall satisfaction are shown to be the highest for the consumers who are degree qualification and the lowest for the consumer who are primary education.

It has been further documented that the mean score is not statistically significant difference between educational qualification of consumers and consumers satisfaction towards e-marketing namely satisfaction towards promotion and delivery of product as  $p > 0.05$  at 5% level of significance. The Analysis of Variance (ANOVA) has been found to be not significant for consumers satisfaction towards e-marketing namely satisfaction towards promotion and delivery of product ( $F = 2.143, p = 0.094 > 0.05$ ).

**Table 3: Analysis of variance (ANOVA) on the basis of Educational Qualification of Consumer and Consumer Satisfaction Score towards E-marketing**

Factors	Educational Qualification	Mean	S.D	Lower Bound	Upper Bound	F [Significance Level]
Satisfaction towards Product	Primary School	30.72	2.42	30.44	31.00	7.747 (0.000)
	Secondary School	31.84	2.11	31.46	32.21	
	Diploma	30.61	2.67	30.13	31.08	
	Degree	30.40	3.18	29.69	31.11	
Satisfaction towards Price and Payment	Primary School	26.77	2.05	26.48	26.97	13.405 (0.000)
	Secondary School	27.87	1.37	27.62	28.11	
	Diploma	26.48	2.98	25.95	27.02	
	Degree	26.10	2.20	25.60	26.60	
Satisfaction towards	Primary	33.60	3.00	33.07	34.14	2.143

PromotionandDeliveryofproduct	School					(0.094)
	Secondary School	33.94	2.60	33.46	34.43	
	Diploma	34.08	2.12	33.83	34.32	
	Degree	34.46	2.04	33.99	34.92	
Overall Satisfaction	Primary School	90.72	7.45	89.38	92.05	7.028 (0.000)
	Secondary School	91.05	4.77	89.96	92.14	
	Diploma	91.69	4.09	91.20	92.18	
	Degree	93.62	4.79	92.73	94.52	

Source: Computed data

There is a significant statistical difference between educational qualification of consumer and consumer satisfaction towards e-marketing namely satisfaction towards product, satisfaction towards price and paymentand overall satisfaction as determined by one wayANOVA ( $F= 7.477, 13.405$  and  $7.028, p=0.000, 0.000$  and  $0.000 < 0.05$ ). Thus, post-hoc analysis was applied as shown in Table 4. Post Hoc test revealed that the consumer satisfaction towards e-marketing namely satisfaction towards product, satisfaction towards price and paymentand overall satisfaction is statistically significant. Hence, the null hypothesis ( $H_{01}$ ) is not accepted and it is proven that there is a significant difference in consumer satisfaction towards e-marketing namely satisfaction towards product, satisfaction towards price and paymentand overall satisfaction among different educational qualification of consumers.

There is no significant statistical difference between educational qualification of consumers and consumers satisfaction towards e-marketing namely satisfaction towards promotionand deliveryofproduct as determined by one wayANOVA ( $F= 2.143, p=0.094 > 0.05$ ). Thus, post-hoc analysis was applied as shown in Table 4. Post Hoc test revealed that the consumers satisfaction towards e-marketing namely satisfaction towards promotionand deliveryofproductis not statistically significant. Hence, the null hypothesis ( $H_{01}$ ) is accepted and it is proven that there is no significant difference in consumers satisfaction towards e-marketing namely satisfaction towards promotionand deliveryofproductamong different educational qualification of consumers.

**Table 4: Post-hoc analysis of Educational Qualification of consumers and Consumers satisfaction score towards e-marketing (The mean difference is significant at 0.05 level)**

Dependent Variable	(I) Educational Qualification	(J) Educational Qualification	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
Satisfaction towards product	Primary School	Secondary School	-1.11465*	.27142	.000	-1.8139	-.4154
		Diploma	.11245	.27218	.976	-.5887	.8136
		Degree	.32029	.32165	.752	-.5083	1.1489
	Secondary School	Primary School	1.11465*	.27142	.000	.4154	1.8139
		Diploma	1.22710*	.32051	.001	.4014	2.0528
		Degree	1.43494*	.36345	.001	.4986	2.3712
	Diploma	Primary School	-.11245	.27218	.976	-.8136	.5887
		Secondary School	-1.22710*	.32051	.001	-2.0528	-.4014
		Degree	.20784	.36402	.941	-.7299	1.1456
	Degree	Primary School	-.32029	.32165	.752	-1.1489	.5083
		Secondary School	-1.43494*	.36345	.001	-2.3712	-.4986
		Diploma	-.20784	.36402	.941	-1.1456	.7299
Satisfaction towards price and payment	Primary School	Secondary School	-1.14109*	.23589	.000	-1.7488	-.5334
		Diploma	.24310	.23720	.735	-.3680	.8542
		Degree	.62701	.28194	.118	-.0993	1.3534
	Secondary School	Primary School	1.14109*	.23589	.000	.5334	1.7488
		Diploma	1.38420*	.27772	.000	.6687	2.0997
		Degree	1.76810*	.31679	.000	.9520	2.5842
	Diploma	Primary School	-.24310	.23720	.735	-.8542	.3680

	Degree	Secondary School	-1.38420*	.27772	.000	-2.0997	-.6687
		Degree	.38391	.31777	.622	-.4348	1.2026
		Primary School	-.62701	.28194	.118	-1.3534	.0993
		Secondary School	-1.76810*	.31679	.000	-2.5842	-.9520
		Diploma	-.38391	.31777	.622	-1.2026	.4348
Satisfaction towards promotion and delivery	Primary School	Secondary School	.13408	.26857	.959	-.5578	.8260
		Diploma	.47123	.26064	.271	-.2003	1.1427
		Degree	-.38055	.30868	.606	-1.1758	.4147
	Secondary School	Primary School	-.13408	.26857	.959	-.8260	.5578
		Diploma	.33715	.31465	.707	-.4735	1.1478
		Degree	-.51464	.35546	.470	-1.4304	.4011
	Diploma	Primary School	-.47123	.26064	.271	-1.1427	.2003
		Secondary School	-.33715	.31465	.707	-1.1478	.4735
		Degree	-.85178	.34951	.071	-1.7522	.0487
	Degree	Primary School	.38055	.30868	.606	-.4147	1.1758
		Secondary School	.51464	.35546	.470	-.4011	1.4304
		Diploma	.85178	.34951	.071	-.0487	1.7522
Overall Satisfaction	Primary School	Secondary School	-1.93377*	.57846	.005	-3.4241	-.4434
		Diploma	.97323	.56313	.310	-.4777	2.4241
		Degree	.64191	.67087	.774	-1.0866	2.3704
	Secondary School	Primary School	1.93377*	.57846	.005	.4434	3.4241
		Diploma	2.90701*	.67589	.000	1.1656	4.6484
		Degree	2.57569*	.76797	.005	.5970	4.5543
	Diploma	Primary School	-.97323	.56313	.310	-2.4241	.4777
		Secondary School	-2.90701*	.67589	.000	-4.6484	-1.1656
		Degree	-.33132	.75649	.972	-2.2804	1.6178
	Degree	Primary School	-.64191	.67087	.774	-2.3704	1.0866
		Secondary School	-2.57569*	.76797	.005	-4.5543	-.5970
		Diploma	.33132	.75649	.972	-1.6178	2.2804

## SUGGESTIONS

- ✓ Lack of awareness about the e-marketing is the major handicap which needs to be addressed by the E-marketing service providers, despite Mumbai City has more number of educated populations.
- ✓ Convenience of getting the products delivered at the appropriate time when consumers are available to receive the products and pay the due, which is not happening in most of the cases. This should be taken care by expanding the delivery time.

## CONCLUSION

E-marketing plays an important role in today's economy. E-marketing is an easy method of shopping. It has influenced many people whether the people belong to poor or rich. The ads shown in the television are the most influenced medium. The most of respondents are satisfied with the e-marketing. It is concluded that there is a significant difference in consumer satisfaction towards e-marketing namely satisfaction towards product, satisfaction towards price and payment and overall satisfaction among different educational qualification of consumers. It is inferred that there is a significant association between age group of consumers and aware about E-marketing. It is concluded that age group is a significant factor determining the awareness about E-marketing.

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## A STUDY ON IMPACT OF MERGERS OF PUBLIC SECTOR BANKS ON ITS CUSTOMER IN MUMBAI WEST

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### ABSTRACT

*The banking sector plays an important role in the lives of every person as he saves a part of his income in the bank for his better future. This study is undertaken to study the impact of merging on customers, employees and performance of PSB. The study is an enquiry of whether there exists any problem among the customers and employees due to merging. This research paper gives a bird's eye view of perception of customers and employees towards merging. The samples are selected from customers and employees of PSB branches in Mumbai west. Also, there are many issues relating to bank merging, but this study is confined only to the impact of bank merging on customers, employees and performance. The questionnaire was used as research tool to collect the primary data from the respondents. The collected data through the questionnaire were then analysed using simple statistical tools like percentage method to reach the research objectives.*

*Key words: Banks, Mergers, Acquisitions, impact.*

### 1. INTRODUCTION

Banking sector occupies a very significant place in every economy and is one of the fastest growing sectors in a country like India. Recently banking sector has been undergoing a lot of changes in terms of regulations and these changes have affected banking sector both structurally and strategically. The changing environment many different strategies have been adopted by this sector in order to remain efficient and one among this strategy is consolidation of banks. There are different ways to consolidate and one among this is merger. A merger can be defined as a situation in which two banks pool together their assets and liabilities to become one.

Government announced 10 Public sector lenders to merge into 4 bigger and stronger banks in August 2019. After 10 PSU (public sector undertakings) banks amalgamated into 4 major PSB (public sector banks) namely Punjab National Bank, Canara bank, Indian Bank and Union Bank of India. The PSB in India has currently come down to 12 from 27 in 2017. This has been announced by the Current Finance Minister of India Mrs. Nirmala Sitharaman as the slowed economy of India from the past six years had to be revived.

These are the banks merged in India till date

Anchor Bank	Amalgamating Bank(s)	Business size (₹lakh crore)	PSB rank by its size
Punjab National Bank	Oriental Bank of Commerce United Bank OF India	17.94	2 <sup>nd</sup> Largest
Canara Bank	Syndicate Bank	15.20	4 <sup>th</sup> Largest
Union Bank of India	Andhra Bank Corporation Bank	14.59	5 <sup>th</sup> largest
SBI	Amalgamated earlier	52.05	The largest
Bank of Baroda	Amalgamated earlier	16.13	3 <sup>rd</sup> Largest

Source: Next Gen PSB

### 2. LITERATURE REVIEW

1. Praveen S. Kambar conducted a study on a study on the consolidation and merger of public sector banks (psb) in india: issues and challenges is done on the basis of descriptive analysis method, based on secondary sources. This study makes attempt to find the issues and challenges faced by PSB .The findings of the study are the government considers that there will not be a reduction in workforce; however, there

are possibilities that future recruitment will be having lesser vacancies since the bigger organization is already having sufficient work force. On account of merger employment situation may deteriorate.

2. Mr. Vijay Joshi a Research Scholar from Department of Business Administration, UCCMS, MLSU, Udaipur has studied the emerging issues of merging in the banking industry. He also studied that some banks merge as a strategy to expand their network for example ICICI Bank.
3. Kamal Ghosh Rai has done a detailed study on mergers and acquisitions and it as a strategy, valuation and integration. He has studied about the motivations and causes of mergers and acquisitions.
4. Dr. Mohan Prasad Shrivastava Professor from Dept. of Economics, Magadh University, Bodh-gaya (Bihar) has studied banking reforms and globalisation. He has done a detailed study of the impact of mergers and acquisitions on the public, Culture, employees. He has explained about the issues related to mergers and acquisitions.

### 3. OBJECTIVES OF THE STUDY

1. To analyze the impact of merging on the customers of banks.
2. To evaluate the satisfaction level of customers towards bank merging.

### 3. RESEARCH METHODOLOGY:

In this study, the data is obtained from both primary and secondary sources. The primary data is collected using questionnaire method whereas; the secondary data is collected from the newspapers, magazines, websites etc.

**Sample Design:** The method of Convenience sampling has been used to collect the data from the respondents.

**Sample Size:** The sample size is 200.

**Data Analysis and Interpretation:** The data is analysed and interpreted using Microsoft Excel 2007.

### 5. LIMITATIONS OF THE STUDY:

1. The study is limited to Mumbai Suburban because of time constraints.
2. Sample size used for the study is small. Hence, the results cannot be taken as universal
3. Some of the respondents did not fill the questionnaire seriously.
4. The accuracy of the figures and data are subject to the respondents view.

### 6. DATA ANALYSIS AND INTERPRETATION

**Table: 6.1 Level of perception of customers**

Basis	Strongly agree	Agree	Neutral	Disagree	Strongly disagree	Total
Increase in Performance	80	40	30	20	30	200
services are more accessible	70	100	10	20	0	200
New Technology	80	40	30	10	40	200
Employees attitude improved	100	40	30	25	5	200

Source: Primary data

**INTERPRETATION:** Table 6.1 explains the perception level of customer respondents to various aspects. The statements and its perception level are as follows:

**On the basis of performance:** 80 respondents were strongly agreed whereas 30 respondents were strongly disagreed regarding this.

**On the basis of services are more accessible:** 70 respondents were strongly agreed whereas 0 respondents were strongly disagreed regarding this.

**On the basis of New Technology:** 80 respondents were strongly agreed whereas 40 respondents were strongly disagreed regarding this.

**On the basis of Employees attitude improved:** 100 respondents were strongly agreed whereas 5 respondents were strongly disagreed regarding this.

Table 6.2 Level of satisfaction of customers

Basis	Strongly agree	Agree	Neutral	Disagree	Strongly disagree	Total
ATM services has improved	120	40	20	10	10	200
Online banking facility has improved	50	60	30	40	20	200
Service charges are satisfactory	50	50	30	30	40	200
Grievance of customers are quickly redressed	100	40	30	25	5	200

Source: Primary data

**INTERPRETATION:** Table 6.2 shows the level of satisfaction of customers to various factors. The factors and their level of satisfaction are as follows:

**On the basis of ATM services has improved:** 120 respondents were strongly agreed whereas 10 respondents were strongly disagreed regarding this.

**On the basis of Online banking facility has improved:** 50 respondents were strongly agreed whereas 20 respondents were strongly disagreed regarding this.

**On the basis of Service charges are satisfactory:** 50 respondents were strongly agreed whereas 40 respondents were strongly disagreed regarding this.

**On the basis of Grievance of customers are quickly redressed:** 100 respondents were strongly agreed whereas 5 respondents were strongly disagreed regarding this.

## 7. FINDINGS OF THE STUDY

1. According to gender wise classification, majority of customer respondents (54 percent) are female and remaining customer respondents (46 percent) are male.
2. Educational qualification reveals that most of the customers are Post graduates (62 percent).
3. Based on occupation, most of the customers are private employees (66 percent).
4. 42 percent of the customers have monthly income below 15000.
5. 86 percent of customers have Savings Bank Account.
6. 44 percent of customers have frequency of transactions below 3 times in a month.
7. Regarding perception of customers: Based on performance, majority of the customers strongly agree that merging led to increase of performance. Based on products and services, majority strongly agree that merging led to introduction of new products and services. Based on technology, majority of customers strongly agree that new technology is implemented. Based on employees, majority customers agree that employees are given better working conditions.
8. Regarding satisfaction of customers: Based on products and services, most of the customers are satisfied with the products and services. Based on customer services, customers are satisfied to service quality.

## 8. SUGGESTIONS

1. The central government shall not rush towards the process of banks merger.
2. There is should proper awareness among customers regarding merger of banks.
3. The management must be ready with a good IT systems/software during merger and after merger so customers will not face any problem.

## 9. CONCLUSION:

Mergers and acquisitions are important for the country in order to revive the sick banks and emit Government as the shareholders. Merged banks have a great opportunity of financial inclusion and broadening the geographical reach. Burden on the government to recapitalize the PSBs from time to time diminishes. This study shows the impact of merging of banks on the customers and employees. There is no

difference in satisfaction level of customers and. Both the customers and employees face some problems, which if given due attention, can be avoided by PSB. Overall, the study concludes by saying that the performance, perception and other aspects of customers are more or less the same.

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**EASE OF DOING BUSINESS IN INDIAN BANKING SECTOR THROUGH USE OF TECHNOLOGY:  
A CASE STUDY OF BASSEIN CATHOLIC CO-OP. BANK LTD.**

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**ABSTRACT**

*Information Technology and the Communication Networking Systems have brought sea changes in the operating and functioning of banks and other financial institutions globally in recent time. In India, the Banking sector plays a key and vital role in the growth and development of Economy. It is the back bone of Indian Financial System. Globalization, Liberalization and introduction of information technology has paved the way for many multinational banks to India. Therefore, opening up new markets, new products and efficient services based on technology for the Indian banking sector has become as easier as ever before. The recommendations of M. Narasimham Committee (1991 & 1998) (especially on the issues related with technology upgradation) Banking sector reforms were accepted and implemented to some extent by Government of India. The use of technology there have resulted an increase in penetration, productivity and efficiency. In light of the above a case study of Bassein Catholic Co-op. Bank Ltd. is being undertaken who has benefitted through use of technology.*

*Keywords: Information Technology, Globalization, Liberalization*

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**1. INTRODUCTION:**

Information Technology and the Communication Networking Systems have brought sea changes in the operating and functioning of banks and other financial institutions globally in recent time. In India, the Banking sector plays a key and vital role in the growth and development of Economy. It is the back bone of Indian Financial System. Globalization, Liberalization and introduction of information technology has paved the way for many multinational banks to India. Therefore, opening up new markets, new products and efficient services based on technology for the Indian banking sector has become as easier as ever before. The recommendations of M. Narasimham Committee (1991 & 1998) (especially on the issues related with technology upgradation) Banking sector reforms were accepted and implemented to some extent by Government of India. The use of technology there have resulted an increase in penetration, productivity and efficiency. It has not only increased the cost effectiveness but also has helped in making small value transactions viable. It also enhances choices, creates new markets, and improves productivity and efficiency. It has been noticed that financial markets have turned into a buyer 's markets in India. In India there is four tier banking system as follows:

1. Multinational Banks
2. Nationalized Banks
3. Private Indian Banks
4. Scheduled and Co-operative Banks.

Among above all types, the banks are facing major problem of survival due to cut throat competition emerged as a result of technology and pace of rapid change. This study has emphasized on case of well-known name in Scheduled banks in Maharashtra which has optimally used technology to render the best service to overcome the challenges faced by it.

**2. STATEMENT OF THE PROBLEM:**

The Bassein Catholic Co-op bank ltd. is a well-known name in Maharashtra's co-operative sector banks. Established in 1919 as a credit society, the Bassein catholic co-op bank ltd. has made a long and meritorious journey of over hundreds of years. Many milestones have been achieved by the bank over the years. It has been placed as top 10 bank among co-operative banks in India. It has perceived many challenges, opportunities and weathered many storms. However, it has achieved compounded annual growth rate (CAGR) of 18% in over the past 5 years. The mission of the bank is to delight the customer by providing simplified and modernized banking solution through superior technology and customer relationship. In light of this, Fintech or financial technology has become buzzword in baking sector digitization has assumed to be new industrial revolution in transforming the banking sector. In past bank has undertaken major policy decision to update with the technology to stay in tune with time and competition. Bank has adopted new and robust CBS "Oracle Flexcube" to meet growing needs of new age customers and transform the bank to a new height. The study underlines the use of technology in Bassein Catholic Co-op Bank ltd. for doing it business prompt and customer friendly.

**Bassein Catholic Bank Performance Highlights: Table 1**

(₹ In Crores)

Particulars	31.03.2019	31.03.2018	Increase	% Growth
Business Mix	11177.35	10132.96	1044.39	10.31
Deposits	6958.10	6098.47	859.63	14.10
Advances	4219.25	4034.49	184.76	4.58
Gross Income	681.62	638.13	43.49	6.82
Gross Profit	171.26	141.29	29.97	21.21
Net Profit	90.03	80.70	9.33	11.56
Owned Funds	1081.67	978.30	103.37	10.57
Gross NPA (%)	4.97%	3.94%	-	-
Net NPA (%)	Nil	Nil	Nil	Nil
C.R.A.R.	17.78%	16.87%	-	-

Source: 2020 - 21 Annual Report of Bassein Catholic Co-op. Bank Pvt. Ltd.

From the table No. 1 it can be seen that the bank under study is in sound position on all parameters mentioned above viz. Advances, Deposits, Profits, NPA, CAGR etc. The technology has played significant role in growth of Bassein Catholic Co-op Bank Ltd. Thus, it is interesting to know how technology has helped it to become the success story. Nevertheless, there are always two sides of coins hence it is imperative to understand the merits & demerits of the technology for this study.

### 3. REVIEW OF LITERATURE:

Dr. Satish Tanaji Bhosale & Dr. B.S Sawant in their research paper titled “Technological Developments in Indian Banking Sector”: elaborate that banks need to optionally leverage technology to increase penetration, improve their productivity and efficiency, deliver cost effective products and services, provide faster. Efficient and convenient customer service and thereby, contribute to overall growth and development of the country.

The paper published by J. C. Henderson, N. Venkatraman on the titled “Strategic alignment: leveraging information technology for transforming organizations” spotlights that even though information technology has evolved from its traditional orientation of administrative support toward a more strategic role within an organization. It further claims that there is still lack of fundamental frameworks within which to understand the potential of I.T for tomorrow's organizations. In this paper, they have developed a model for conceptualizing and directing the emerging area of strategic management of information technology.

The research paper titled “E-CRM in Indian Banking Sector, Golden Research Thoughts” published by Dr. V.S Mangnale, Ms. J.V Chavan & Mr. A.D Randive highlights that technology, people and customer are the three elements which are turning point for the success of banking in the fast-changing economic environment.

Mr. P. Vohra, Chief Technology Officer, ICICI Bank feels that RBI has continued its efforts for developing a modern and efficient, integrated payment and settlement system for the banking sector. Initiatives taken by RBI for setting up RTGS will have far reaching impact.

Mr. V.K. Ramani, President, I.T UTI Bank is of the view that the Special Electronic Funds Transfer opens up a significant business opportunity, large trading and distribution firms can effectively implement e-procurement systems with settlement of transactions across the banking system taking place under the SEFT.

Mr. Neeraj B Bhat, Chief Technology Officer, IDBI Bank feels that as such there is no major shift on IT front in this year 's RBI policy. What we see today is the culmination of the initiatives that were started few years back. These were in the areas of moving towards automating inter-bank payment and settlement systems.

KPMG's article on “Technology enabled transformation in Banking”, The Economic Times Banking Technology, Conclave 2011: has concluded that information technology in banking is fast evolving. From enabling banking services to driving transformation in the industry, Information technology holds a promise to change the face of banking in the next few years.

### 4. OBJECTIVES OF THE STUDY:

The objectives of the study are as follows:

- To find out the significance of technology in Indian banking sector.
- To review the progress of Indian banking sector through the use of technology.
- To analyze the innovations in banking industry after the inception of technology.
- To identify challenges in the implementation of I.T. solutions in the public sector banks of India.
- To study the merits and demerits of use of technology in Bassein Catholic Co-op Bank Ltd.

## **5. RESEARCH METHODOLOGY:**

### **Sources of Data:**

The research is based on secondary as well as primary sources of data. For this, reports of published literature are used also articles from journals, business magazines, newspapers, websites, etc. is being used to collect the data. Various studies on this subject have also been referred in this study. The branch managers of Bassein Catholic Co-operative Bank Ltd. have been approached and other functionaries have also been contacted personally to collect the required primary data for this study.

## **6. LIMITATIONS OF THE STUDY:**

1. The study under research is confined to one specific schedule bank located at one taluka of Maharashtra hence the conclusion may vary or different vis-a vis other all types of bank.
2. The present study is partially based on secondary sources of information and thus suffers from the same limitations as all such studies that rely on secondary data.

## **7. ANALYSIS AND FINDINGS:**

Developments in the field of information technology has strongly supported the growth and inclusiveness in Bassein Catholic Co-Op. Bank Ltd. which eventually has enabled inclusive economic growth. IT improved the front end as well as back-end operations and helps in bringing down the transaction costs of the bank and for the customers. The significant services by Bassein Catholic Co-Op. Bank Ltd. with the help of IT are extended to its customers over a period of time are as follows:

- Advent of card-based payments system viz. Debit & Credit card system.
- Introduction of Electronic Clearing Services (ECS).
- Beginning of Electronic Fund Transfer (EFT).
- Induction of Real Time Gross Settlement (RTGS)
- Initiation of National Electronic Fund Transfer (NEFT) as a replacement to Electronic Fund Transfer/Special Electronic Fund Transfer.
- Inception of Cheque Truncation System (CTS) is a cheque clearing system undertaken by the Reserve Bank of India (RBI) for faster clearing of cheques.
- Introduction of Automated Teller Machine (ATM) which enables the users to withdraw the cash, deposits and transfer of funds.
- Online Franking for Housing Loan Transactions.
- Online utilities payments viz. Electricity Bills, Mobile Prepaid/Postpaid Bills, Cooking Gas etc. Fuel Charges etc.
- Fund Transfers through mail banking.
- Instant Disbursement of Dividend.
- Passbook Printing through Kiosk Machine.
- Cash Deposit Machines.
- Online Grievance Redressal Mechanism of Members, Customers and other Stakeholders.
- Various Products of Banks can be exhibited/displayed through IT.
- Recruitment of employees through own portal.
- Bassein Catholic Co-op Bank Ltd has its own app viz. Digitech App to provide better online services to its customer.

**Advantage & Disadvantage of Banking Technology**

Every technology has its advantages and disadvantages, and advances in banking are no different. Accessing money through an automatic teller machine (ATM) anytime is convenient. On the other hand, that freedom can allow easier access to one's money for someone who has stolen one's ATM card. These changes are here to stay so to understand the benefits and drawbacks of banking technology to figure out how best to deal with them.

**Advantages of Use of Technology to Bassein Catholic Co-Op. Bank Ltd.**

- Technology saves the efforts and time where the customer can conduct banking operations without having to go to the headquarters or branch of a bank, where he can at home or library, which saves his time and effort thus better services to all its stakeholders esp. customers.
- Digital banking increases the efficiency of the performance of banks and improve the level of service, saving time and effort for the customer as well as the staff of the bank, as well as the availability of 24-hour service, including public holidays, and tight control of banking operations, and send and receive documents quickly in other words maintaining operational and administrative efficiency at optimal/minimal cost.
- Savings in employees related cost due to Less Requirement of Human Resources.
- Helps in coping up the cut throat competition.
- Recording mass data base in digital form for long duration.
- The ease of banking transactions in electronic banks and the speed of conducting them.
- Technology provides higher security and less risk of manipulation or theft of checks, in addition to the reliability of cash flows, and the speed of the movement of cash.
- Digital banks are characterized by the organization of cash payments, which contributes to the agreed time for the date of deduction and payment of the value of financial transfers is organized.
- Reducing the dependence on paper forms, as all transactions are done electronically, which contributes to reducing the expenses incurred by the conventional bank and the client pays them administrative expenses.

**Disadvantages of Use of Technology by Bassein Catholic Co-Op. Bank Ltd.**

Despite of aforesaid advantages, the bank with its technology has risks as any new technology must have some risks, and economists warn of the potential dangers of dealing with. The following are the disadvantages of digital banking:

- The possibility of frauds and corruption is quite high as banks are not exception to prevailing cyber crimes.
- It becomes difficult to all class of customers to use the technology smoothly and efficiently as bank is operating in rural areas also and some customers are not tech savvy especially senior citizens.
- It become burden on existing human resource due to stop in fresh or new recruitments as a result of use of technology.
- It is always expected to occur a technical error that can hinder the work of the whole bank and the loss of accounts of people and can be a virus that infects electronic devices to penetrate this system and disrupt it.

**8. CONCLUSION:**

The competition from global banks and technological innovation has compelled the banks to rethink their policies and strategies. Different products provided by foreign banks to Indian customers have forced the Indian banks to diversity and upgrade themselves so as to compete and survive in the market. Technology up gradation is an inevitable aspect to face challenges. The level of consumer awareness is significantly higher as compared to previous years. Now-a-days they need internet banking, mobile banking and ATM services. The efficient use of technology in Bassein Catholic Co-op Bank Ltd. has facilitated accurate and timely management of the increased transaction volumes of banks which comes with larger customer base. Bassein Catholic Co-op Bank Ltd. has greatly benefitted from I.T. revolution all over the world. It enabled sophisticated product development, better market infrastructure, implementation of reliable techniques for control of risks and has helped the financial intermediaries to reach geographically distant and diversified markets.

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**MULTI LEVEL MARKETING (MLM) INDUSTRY- POST COVID-19 PANDEMIC**

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**ABSTRACT**

*The post Covid-19 period, has provided a number of solution's and avenues to businesses, which seemed least significant before. With jobs being impacted and people being instantaneously fired from their so-called secure jobs, this pandemic has been an eye opener for people to think of a parallel or passive source of income to ensure future security and not falling bait to such unforeseen and uncertain future eventualities. The prescribed social distancing norms, along with the constant fear of infections and the imposed lockdown has severely tested potentially untapped industries. This paper deliberates on the viable opportunities created by the Multi Level Marketing Industry to reinvent one's job profile in post covid times.*

*Key words: Direct selling, networking, distributors, brands, income.*

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**OBJECTIVES OF THE STUDY:**

- 1) To understand the significance of direct selling industry as a job opportunity in the post covid period.
- 2) To understand the means of generating an alternate source of income irrespective of educational qualification and work experience.

**NEED FOR AN ALTERNATE SOURCE OF INCOME:**

The people working in both formal and informal sectors have been severely affected during the covid period. The term lay offs have become synonymous with Covid-19, affecting millions of people in every sector, with many still struggling to find a job. The employment landscape has since then seen a drastic change and the year 2020 which has been termed as one of the worst years for the job market in India is an eye opener in a number of ways. The silver lining among this Covid chaos is that its magnitude has changed people's behaviour towards personal hygiene, health and healthcare, giving it top priority. It is high time people do away with and change course on the traditional ways of staying employed and forge alternate paths to sustain such unexpected crisis.

**CHANGING CONSUMER BEHAVIOUR PATTERNS:**

The Covid-19 pandemic has permanently altered and caused lasting structural changes in buying patterns of consumers. People are now making healthier choices trimming on non-essentials. There has been a spurt of growth in the gig economy. The disruption created by this pandemic is a beacon of hope for the gig economy platforms, though still at a nascent stage in India. Direct selling has been a part of this economy lingering around for few years with untapped potential. Having more control over ones earning prospects along with flexible work schedules and no physical setup required, leveraging the advantages of this sector would go a long way in boosting people's financial freedom.

**DIRECT SELLING COMPANIES IN INDIA:**

The model guidelines for States & Union Territories, on direct selling, have been formulated by the government in 2016 for protecting the legitimate rights and interests of Industry and Consumers. It is envisaged in the guidelines that the State Governments will set up a mechanism to monitor and supervise the activities of Direct Sellers and Direct Selling Entities regarding compliance of the guidelines for Direct Selling.

Amway, Herbalife Nutrition, Oriflame, Vestige, Mi Lifestyle Marketing Global Private Limited, Avon etc. are some of the front runners in the Multi Level Marketing business in India diversifying in products ranging from healthcare, beauty care, personal care, diet supplements, wellness and daily life products. The high-quality products and the need for creating an alternate source of income are reasons enough for these companies to grow steadily. Direct selling is an avenue where entrepreneurial-minded people can work independently to build a business, with low or negligible initial investment and overhead costs.

**GLOBAL DIRECT SELLING MARKET:**

Network marketing or Multi Level Marketing is one of the most sought-after business models in several parts of the world. There are innumerable brands becoming actively ready to partner with network marketing companies, slating to remain one of the highest earning industries in the global economic scenario. With over 100 countries successfully operating the Direct Selling model it was estimated to touch US\$ 200 billion by the end of 2020.

In the 2020 DSN Global 100 ranking, published in the June issue of Direct Selling News the following insights were obtained:

- a) 48% of companies grew year over year from 2018-2019.
- b) 2 of the top 10 companies reported increased revenue.
- c) 6 Companies grew by \$ 100 million from 2018-2019.
- d) 7 Companies which ranked between 11-25 reported increased revenue.
- e) 15 Companies which ranked between 25-50 reported increased revenue.

**DIRECT SELLING INDUSTRY POST COVID ERA:**

Direct selling sector is poised to employ more than 18 million by 2025 and as per industry estimates, the Direct Selling industry in India, which currently ranks No. 15, globally, is expected to grow at a Compounded Annual Growth Rate (CAGR) of about 4.8 percent to reach Rs 15,930 crore by 2021. The post pandemic period has seen a steady increase of women joining the direct selling business. Amway CEO Anshu Budhraj has quoted having observed an upward trend in women participation, from 60% in early 2020 to close to 70% in 2021. Tupperware India MD Deepak Chhabra, has witnessed a 47% rise in new registrations in July, 2020. With no registration charges involved, there has been a growing tendency of self-motivated women joining the Tupperware business. Global cosmetic brand Oriflame (India) too has witnessed an increase of around 30% in the under-35 age category between the January-March and April-June quarters of 2020. Mi Lifestyle Marketing Global Private Limited has collaborated with Skill India. Retail Profit, Sales Turnover Bonus, Performance Bonus, Overriding Bonus, Rank Income, Loyalty Bonus, Royalty Income etc. are few income earning opportunities which reward and compensate the efforts and dedication of distributors in the Mi lifestyle business. They also deal in agro products helping farmers protect their crops, in turn achieving maximum yield.

**KEY CHALLENGES FACED IN THE MULTI LEVEL MARKETING BUSINESS:**

- a) Insufficient leads and marketing strategies.
- b) Follow-up and social skills.
- c) Staying updated on the developments in the business model.
- d) Retailers becoming direct sellers.
- e) Rigid labour laws and poor infrastructure making it difficult to set up manufacturing facilities.
- f) High Import Duties on the ingredients required in the manufacturing process.

**CONCLUSION:**

The multi level marketing industry has played an important role in providing supplementary income and creating alternative career opportunities, thereby encouraging micro-entrepreneurship despite these challenging times. Initiatives like 'Aatmanirbhar Bharat' and 'Vocal for Local' are government initiatives which are encouraging people to buy and sell products locally made through the direct selling route. The direct selling industry is instrumental and crucial in empowering and providing job opportunities to people who are planning to deviate from traditional means of earning and embarking on a supplementary and parallel platform to earn and in turn enhance India's growth story.

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**A STUDY OF CYBER LAWS IN INDIA**

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**ABSTRACT**

*Cyberlaws are lawful acts in terms of internet, online or cyberspace. This paper is an attempt to understand cyber laws based on secondary data. Misuse of technology by using computer as a weapon or as a target is a challenge to various transactions in society. Introduction of cyberlaw has recognized many wrongful acts like stealing of personal data, cyberbullying, hacking, cyberterrorism, copyrights and many. Cyberlaw has provided a security act which help recognize and punish the offenders.*

*Cyberlaws is a legal infrastructure to deal with cybercrimes. This is a strong security as it will cut down rise in crime and people will develop a confidence in digital world.*

*Keywords: Cyberlaws, cybercrime.*

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**INTRODUCTION, MEANING:**

Law is “the system of rules which a particular country or community recognizes as regulating the actions of its members and which it may enforce by the imposition of penalties.” (Oxford Dictionary). It is a rule defining correct procedure or behaviour in a country.

Cyber is relating to or characteristic of the culture of computers, information technology, and virtual reality (Oxford Dictionary)

Cyber laws are used to describe the legal issues related to use of communications technology, it means any legal issues relating to information technology, internet or say Cyberspace. Unlawful acts created with the help of computer is cybercrime. The mishandling of computers has given birth to series of crimes that are addressed by the Information Technology Act, 2000. Cybercrimes are basically categorized in two ways:

1. Target: Under target, the computer is used as a target like using a computer to attack other computers, Hacking, Virus/worm attacks, DOS attack etc.
2. Weapon: Under weapon the computer is used as a weapon like using a computer to commit real world crimes, IPR violations, Credit card frauds, Pornography, EFT frauds etc.

Cyber law is a strive to merge the challenges presented by human affairs on the internet with the benefaction system of laws applicable to the physical world. Cyber law is a less distinct field of law as compared to crimes in property or contract which are common in the physical world.

Cyber law is referred to as the law of the internet. It is defined as “A legal system designed to deal with the Internet, computing, cyberspace and related legal issues”. It includes aspects of contract, intellectual property, jurisdiction, data protection laws, privacy and freedom of expression. Thus, it is the digital circulation of software, information, online security and e-commerce. Cyberlaw is a legal infrastructure to deal with cybercrimes. It provides legal recognition and also creates a structure for e-commerce transactions, documents. If it is found that any individual breaking the rules or cyber laws, he is punished under the law of cyber. Many people are getting trapped into cybercrime so need of cyberlaw is the prime need in Digital technology. Cyberlaw consists of rules that mandate how people and companies should use the internet and computers.

***"The Cyber Laws in India has paved the way for electronic commerce and electronic governance in the country by ensuring maximum connectivity and minimum cybersecurity risks. Also, enhancing the scope and expanding the use of digital mediums,"*** says Advocate Krishna Mohan K Menon.

On 17<sup>th</sup> October 2000, the Cyberlaw IT Act 2000 was introduced and came into consideration in India. The act was introduced to purvey with e-commerce and Cybercrime in India. Cyberlaw is a residuary subject handled by Central Government and is not included in Union, State and Concurrent. Following is the list of features of cyberlaw:

1. The appointment process of an adjudicating officer for carrying out inquiries is defined in cyberlaw act.
2. Legal validity is reached to all the electronic contracts made through secure electronic channels.

3. The IT law act provides recognition for digital signatures legally, also the digital signatures are compelling to use asymmetric cryptosystem and a hash function.
4. The senior police officials and other officials are given authority to search any public case without a warrant.
5. The act also has a provision to form a Cyber Regulations Advisory Committee that will advise the Central Government and the Controller.
6. It also includes any online crime committed outside India.
7. There is also a provision to form the Controller of Certifying Authorities which licenses and regulates working of the Certifying Authorities. All the digital signatures are stored by the Controller in such a case.

**Types of Cybercrimes:**

1. Identity Theft: When personal information is stolen of an individual with a motive of using their financial information and resources or credit card in their name or to take a loan is called as Identity theft.
2. Hacking: Hacking means to gain unauthorized access to data in a system or computer (Oxford Dictionary). Hacker is a person who gets access to other people's computers and passwords and uses it for wrongful benefits.
3. Cyberbullying: When an adolescent or teenager harasses, tries to defame or intimidates someone with the use mobile, instant messaging, chat, internet or any other social network then this wrongful act is termed as Cyberbullying. This same crime followed by adults is known as Cyberstalking.
4. Cyberterrorism: Threat of extortion or any kind of harm subjected towards organization, individual, group or state is known as the Cyber terrorism. It includes the well-planned attack strategies on the corporate or Government computer system.
5. Trade Secrets: Information technology organization spends an ample of time and finance in developing software's, applications and tools. They totally rely on Cyber laws to protect their data and trade secrets, if this is stolen by any individual then this wrongful act is a punishable offence.
6. Defamation: Every individual has right to speech on this digital platform. If any statement crosses a line and harm the reputation of an organization or individual then he or she is charged with the Defamation Law.
7. Copyright: With the huge growth of internet users, the information or data is reached to all digital platforms, this has raised many cases copyrighting the work. Copyrighting without permission is a punishable offence.
8. Freedom of speech: This means individuals have freedom to speak their mind. There is a very thin line between freedom of speech and being a cyber offender, when it comes to the digital platform. Cyberlaws refrains obscenity and crassness over the web.
9. Harassment and Stalking: Digital platform prohibits harassment and Stalking; Victims are protected and the offenders are prosecuted against offence under Cyberlaws. There are different punishments for different types of cybercrimes in India.

**Advantages**

1. Act has provided legal infrastructure which enables organizations to carry out e-commerce.
2. It has sanctioned and given legal validity to Digital signatures.
3. It has opened the doors for the entry of corporate companies for issuing Digital Signatures Certificates in the business of being Certifying Authorities.
4. It has allowed Government to issue notification on the web hence heralding e-governance.
5. The IT Act addresses the important issues of security, which are very important to the success of digital transactions.

**CONCLUSION:**

As an individual we can also keep ourselves alert from getting trapped in crimes. Messages received from unknown number should not be responded back, one should try to avoid unsolicited text messages. Always try to download required information from a trustworthy source only. Always check the seller's rating and

feedback of customers for the seller, also cross check the current date of feedback. When dealing with financial transactions or filling up of personal information which requires credit card or debit card CVV, check the authenticity of the source and never click the embedded links.

Cyberlaws addresses issues of security and enables successful electronic transactions. The response of any business dealing time is considerably reduced due to the shortage of valid digital signatures. This has made life of people in society easy as at a click of button the demand of information is received. But this does not give a picture of perfect, crime free society. There need to be constant attempt of rules to keep the criminalities at low. Society that is dependent more and more on technology, crime based on online are bound to increase and law makers have to go the extra mile as compared to the imposters.

Proper use of technology is a big advantage to the society but misuse of Online or digital technology will surely reduce the economical growth and will bring out unhealthy environment in the economy. Thus, law would give a sense of confidence and security, this will develop the technology keeping low rates of crimes and there will be more businesses on online platform thus this will grow into a total digitalised economy.

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**IMPACT OF PANDEMIC COVID-19 ON EDUCATION IN INDIA**

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**ABSTRACT**

*The COVID-19 pandemic has created the largest disturbance of education systems in human history, affecting billion of learners in more than 200 countries. Closures of schools, institutions and other learning spaces have stuck the world's student population. This has brought many changes in all aspects of our lives. Social distancing and restrictive movement policies have changed the traditional education system. Reopening of schools after relaxation of restriction is another challenge with many new standard operating procedures put in place.*

*Within a short span of the COVID-19 pandemic, the virtual world has come to the rescue. Several schools, colleges and universities have discontinued face-to-face teachings and converted into online learning. The need of the hour is to innovate and implement alternative educational system and assessment strategies. The COVID-19 pandemic has provided us with an opportunity to pave the way for introducing digital learning. This research paper focuses on both positive and negative impact of COVID-19 pandemic on teaching and learning process in India.*

*Key words: face to face teaching, digital learning, impact of COVID-19 pandemic.*

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**• INTRODUCTION:**

***“Education breeds confidence. Confidence breeds hope. Hope breeds peace.”***

**- Confucius**

World Health Organization (WHO) announced Corona Virus which is also known as COVID-19 as a disease on 11th February 2020. It is infectious disease. It spreads primarily through droplets of saliva or discharge from the nose when an infected person coughs or sneezes. Most people infected with the COVID-19 virus will experience mild to moderate respiratory illness and recover without requiring special treatment. Older people, and those with underlying medical problems like cardiovascular disease, diabetes, chronic respiratory disease, and cancer are more likely to develop serious illness. The impact of pandemic COVID-19 is witnessed everywhere around the world. The education sectors of India as well as world are also not untouched by its bad effect. World-wide lock down created very bad effect on the students' life. Crores of students stopped to move schools/colleges and all educational activities halted in India. As the change is inevitable, the educational institutions accepted the challenge and opted the techniques, which have not been used before.

Initially, the educators and the students were quite confused and didn't understand how to handle this situation and forced to shut down the educational activities. It is a respiratory disease which impacts the health of the individual completely. The first case of COVID-19 was first reported in China in December 2019. The WHO declared the novel Corona Virus as a Pandemic disease in March, 2020. The symptoms of this virus were dry cough, fever, sore throat and problem in breathing.

The impact of pandemic COVID-19 is witnessed everywhere around the world. The education sectors of India as well as world are also not untouched by its bad effect. World-wide lock down created very bad effect on the students' life. Crores of students stopped to move schools/colleges and all educational activities halted in India. As the change is inevitable, the educational institutions accepted the challenge and opted the techniques, which have not been used before. The education sector has been fighting to survive with the situation in different way and converting traditional to digital platform to remove this threat of pandemic.

Initially, the educators and the students were quite confused and didn't understand how to cope up with the situation and all educational institutions forced to be shut down. But later on all realized that the lockdown has taught so many lessons to manage with the emergence of such pandemics. The lockdown has given them a ray of hope for teachers and students to continue their educational activities through online. The teachers assigned work to students via internet, delivered lectures video conferencing using different Apps like Zoom, Google meet, Facebook, Youtube, and Skype etc. There are WhatsApp groups of guardians, teachers, students and parents for communication through which they are always in touch to share their difficulties through this e-medium.

On the other side, the challenge is that numerous advanced educational institutions in India are not also equipped with digital facilities right now to cope up with sudden change from traditional education set up to the online education system. Also in India, every student is not well equipped with the high-speed internet and digital gadgets.

- **OBJECTIVES OF THE STUDY:**

- To enlighten various steps taken by Govt. of India for education sector during this pandemic.
- To highlight various positive impact of COVID-19 on education.
- To enlist some negative impacts of COVID-19 and to put some effective suggestions for continuing education during the pandemic situation.

- **RESEARCH METHODOLOGY:**

The research is based on secondary data. Secondary data was collected from various journals, articles, working papers and web sites etc.

### **INITIATIVES OF GOVT. OF INDIA ON EDUCATION DURING COVID-19:**

To prevent spread of pandemic COVID-19, the Government of India has taken number of preventive measures. During COVID-19 Pandemic, Ministry of Education has held several consultations with the states and UTs at various levels and taken many initiatives to ensure that the school going students don't lag behind in their studies during COVID-19 pandemic. The government declared lockdown across the country on 16<sup>th</sup> March, 2020. Central Board of Secondary Education (CBSE) postponed all examinations of secondary and higher secondary schools on March 18, 2020 throughout India. According to the guideline for examination centres, the examinations should be conducted by maintaining a distance of at least one metre between the students writing the exam. The class room should not have more than 24 students. If the class room is small then the students should be divided into different classrooms accordingly. Govt. of India has been extending lockdown periods from time to time adopting different strategies to fight with the pandemic but educational institutions remained closed continuously. They have instructed the schools to hold all their classes online. All educational activities were continued on digital platform only. The teachers learnt and develop professional skills and knowledge to teach online more efficiently. WhatsApp, Zoom, Google meet, Telegram, Youtube live, Facebook live etc. resources are used for online teaching learning system.

- **THE DIGITAL INITIATIVES OF MHRD FOR SECONDARY AS WELL AS HIGHER EDUCATION DURING COVID-19:**

- **Diksha :** Digital Infrastructure for School Education (DIKSHA) is an **initiative of the National Council of Educational Research and Training (NCERT)** under the support of the **Ministry of Education, Government of India**. The DIKSHA platform offers teachers, students and parents engaging learning material relevant to the prescribed school curriculum. Teachers have access to aids like lesson plans, worksheets, video lessons and activities, to create enjoyable classroom experiences. Under the guidance of its national boards of education (CBSE) and NCERT, the content has been created by more than 250 teachers who teach in multiple languages. Students understand concepts, revise lessons and do practice exercises. Parents can follow classroom activities and clear doubts outside school hours. The app is available to use offline. It has more than 80,000 e-Books for classes 1 to 12 created by CBSE, NCERT in multiple languages. The contents can also be viewed through QR codes on textbooks. The app can be downloaded from IOS and Google Play Store.
- **e-Pathshala:** ePathshala is a portal/app developed by the CIET, and NCERT. The platform offers a slew of educational resources, including NCERT textbooks for classes 1-12, audio-visual resources by NCERT, periodicals, supplements, teacher training modules and a variety of other print and non-print materials in multiple languages including Hindi, Urdu, and English.
- **National Repository of Open Educational Resources (NROER):** The National Repository of Open Educational Resources (NROER) NROER is developed by CIET & NCERT. NROER hosts large number educational resources in many subjects and in different Indian languages for Primary, Secondary and Senior Secondary classes. Resources are available in different formats like video, image audio and interactive.
- **HIGHER EDUCATION:**
  - **Swayam:** Swayam (**Study Webs of Active-Learning for Young Aspiring Minds**) is the national online education platform launched by the **Ministry of Human Resource Development (M.H.R.D.)** to give a

coordinated stage and free entry to web courses, covering all advanced education, High School and skill sector courses.

- **Swayam Prabha:** The Swayam Prabha is a group of 34 DTH channels devoted to telecasting of high-quality educational programmes on 24X7 basis using the GSAT-15 satellite. Every day, It shows new content for at least four hours which is repeated 5 more times in a day, allowing the students to choose the time of their convenience. The channels cover both school education (classes 9 to 12) and higher education (undergraduate, postgraduate, engineering Out-of-school children, vocational courses and teacher training) in arts, science, commerce, performing arts, social sciences and humanities subjects, engineering, technology, law, medicine, agriculture.
- **e-PG Pathshala:** e-PG Pathshala is an initiative of the MHRD under its National Mission on Education through ICT (NME-ICT) being executed by the UGC. The content and its quality being the key component of education. . It works as a gateway for all courses at post graduate level. The importance of this platform is that students can access these facilities without having internet for the whole day.
- **POSITIVE IMPACT OF COVID-19 ON EDUCATION:** Though the outbreak of COVID-19 has created many negative impacts on education, Indian educational Institutions accepted the challenge to provide continuous educational services to the students during the pandemic. Indian education system got the opportunity for transformation from traditional system to digital system. The following points may be considered as the positive impacts.
  - **More time to learn:** Due to digital learning, the students get more time to learn and save time from travelling. They can attend the class from wherever they are. It makes
  - **New efficient ways to learn:** It encouraged all teachers and students to become more technology savvy. It has made the teaching – learning process more effective.
  - **Digital copies of learning materials:** Due to availability of soft copy, it became easy for students to download their study material even in lockdown also.
  - **The flexibility of learning methods:** Due to online study, Students can choose different learning methods, which perfectly suit their learning styles. This benefit solves the “eternal” problem of the lack of flexibility of the standard curriculum. There are almost no restrictions and students are free to plan their learning schedules and write a paper according to their needs and possibilities.
  - **Promotes in collaborative learning:** There is a new opportunity where collaborative teaching and learning can take on new forms. Collaborations can also happen among faculty/teachers across the world to benefit from each other.
  - **Enhanced online activity:** Due to pandemic online activities like teleconferencing, virtual meetings, webinars, online faculty development program and e-conferencing opportunities has increased.
  - **Enhanced Digital Literacy:** The pandemic situation encouraged people to learn and use digital technology.
  - **The use of electronic media for sharing information:** Learning materials are shared among the students easily and the related queries are resolved through e-mail, SMS, phone calls and using different social Medias like WhatsApp or Facebook.
  - **Opportunity to interact with the world:** All the learners are getting opportunities to interact with peers from around the world, which enhances their knowledge and skills.
  - **Demand for Open and Distance Learning (ODL):** During the pandemic situation most of the students preferred ODL mode as it encourages self-learning providing opportunities to learn from diverse resources and customized learning as per their needs.

**NEGATIVE IMPACT OF COVID-19 ON EDUCATION:** It is agreeable that in one place pandemic pushed technology usage into the next level, whereas in others the absence of such technology put to pause the whole educational system. It has created many negative impacts on education and some of them are as pointed below:

- **Educational activity hampered:** For digital learning, students’ need to be trained to use the technologies that they are been given. This task requires some time to fully get use to the new approaches and, thus, further delay of teaching & learning occur.

- **Impact on employment:** Many recruitments got postponed due to pandemic. In India there is no recruitment in government sector. In private sectors many lose their jobs because of companies going in loss in current situation. So unemployment rate has increased. People are struggling for bread and butter. Thus education is gradually decreasing.
- **Unprepared teachers and students for online education:** All teachers and students are not tech savvy. It is not easy for them to learn the technology fast. So teaching and learning on digital platform is a great challenge for them which may affect their teaching and learning process.
- **Lack of digital facilities in rural areas:** Due poor network in rural areas the students face lots of difficulties to learn online. Many parents cannot afford mobiles, laptops for their children which stuck their opportunity of learning. The lockdown has hit the poor students very hard in India as most of them are unable to explore online learning.
- **Reduced global employment opportunity:** Due to COVID- 19, many people lost their job. Many Indians returned home after losing their jobs overseas. Many students who have already got jobs through campus interviews may not be able to join their jobs due to lockdown. Many fresh students who are likely to enter the job after completing their education may not get suitable employment. Many fresh employees were withdrawn from corporate sector because of movement restriction in the current pandemic situation.
- **Increased responsibility of parents to educate their wards:** In this situation the parents' responsibility to educate their wards has increased. Some educated parents are able to guide but some may not have suitable education to teach their children in the house.
- **Loss of nutrition due to school closure:** Government of India provides mid-day meal in school with the aim to give better nutritional food to school age children nationwide, which is stopped due to lock down. It impacts the daily nutrition of students.
- **Access to global education:** The pandemic has significantly disrupted the higher education sector. A large number of Indian students who are enrolled in many Universities abroad, especially in worst affected countries are now leaving those countries and if the situation persists, in the long run, a there will be a significant decline in the demand for international higher education.
- **Payment of Schools, Colleges fee got delayed:** Due to lockdown many parents lost their jobs, so they may not be able to pay fees in the given time periods which can affect the private colleges/ institutions.
- **SUGGESTIONS:**
  - India should frame the creative strategies to ensure that all children must learn during pandemic COVID-19. The Indian policies must consider every individual from diverse background while developing the teaching and learning techniques digitally. Immediate measures are required to lessen the effects of the pandemic on job offers, internship programs, and research projects.
  - Many online learning platforms offer different certification courses on same subject. So the quality is main concern about these courses. Therefore, establishment of quality assurance mechanisms and quality benchmark for online learning programmes must be developed and offered by Higher Education Institutions.
  - Government and educational institutes should plan to continue the educational activities maintaining social distancing. 30-40% students and teachers may attend schools/colleges in two shifts per day to carry on educational activities by obeying guidelines for COVID-19.
  - At current scenario, internet is an urgent requirement. So it must reach to the remotest and poorest communities to facilitate the students to continue their education during the pandemics.
  - Some significant issues associated with distance learning strategies like the availability and access to digital devices with internet connectivity, the need for safe learning spaces, creating capabilities for teachers, families and students to operate and navigate digital devices, and engaging lesson plans for disabled students and other marginalised groups should be addressed by Govt. and the stakeholders.

## CONCLUSION:

The petrifying and the extreme impact of COVID-19 has shaken the world to its core. It has impacted the education sector also. Even though it has created many challenges but it has created many opportunities also. Many open and distance learning were adopted to survive and minimise the negative impact of COVID-19. . India is not fully equipped to make education reach all corners of the nation via digital platforms. The students

who aren't privileged like the others suffer due to the present choice of digital platforms. But government is continuously trying to come up with different solutions to solve this problem. It is need of the hour for the educational institutions to strengthen their knowledge and Information Technology infrastructure to be ready for facing COVID-19 like situations. The concept of work from home was of great importance in terms of maintaining social distancing. The Indian policies must include various individuals from diverse backgrounds including remote regions, marginalised and minority groups for effective delivery of education. As online learning is benefitting the students very much so it should be continued even after lock down when everything will be normal.

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## A REVIEW OF CUSTOMER SATISFACTION IN HOTEL INDUSTRY WITH REFERENCE TO SELECTED STAR HOTELS OF MUMBAI CITY

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### ABSTRACT

*The hotel industry in India has shown a growth at a fast pace, which could be accorded to increase in disposable income, permission for FDI in hotel industry, growth in tourism not only from overseas countries but also within the nation, change in spending behavior of people, various initiatives by government to boost tourism, etc. Along with this the level of competition too has increased manifold. India is a country with the philosophy of 'Atithi Devo Bhava' (Guest is God). This has forced the hotel industry to serve the customer in the best possible way. The hotel industry at the same time has to live up to the demands and expectations of their customers belonging to diverse cultures. In order to be successful it is not only sufficient to attract new customers but at the same time it is important to retain existing customers through effective services and gaining their loyalty. One of the major factors in customer satisfaction in hotel industry is the quality of service. This paper traces the factors which permit the customers to experience wow element which could be achieved by filling the gap between customers expectations and hotel's service attributes. The findings of the research are projected to help hoteliers to focus on customer satisfaction through effective strategies for providing tangible and intangible services as well as thriving for good customer relationships management.*

*Keywords: Customer satisfaction, hotel services*

### INTRODUCTION TO HOTEL INDUSTRY AND CONSUMER SATISFACTION

The twenty first century has seen hotel industry transforming into one among the foremost competitive industries. Hotel industry too is a part of service industry and thus the satisfaction depends on quality of service offered to the customers. To create different from others one of the significant aspects is enhancing customer loyalty which will not only make sure its survival but also constancy and growth in the long run. With the increase in competition every hotel tries to offer services to utmost satisfaction of customers. Customer satisfaction is now old concept and what is required today is the new insight. Providing and retaining customer satisfaction to the level of customers experiencing Wow is one of the main contemporary challenges. India is the fourth most preferred travel destination as per their ranking from among 167 countries of the world. According to the Ministry of Tourism report, The Indian Government is functioning to achieve one per cent share in world's international tourist arrivals by 2020 and two per cent share by 2025. One of the biggest assets of Hotel industry in India is that hotel is a labor intensive one and India has a huge population of English-speaking individuals, which proves as a catalyst in progression and prosperity of the industry.

#### India FY20 Key Data

Contribution of Travel and Tourism to GDP	6.8 % of Total Economy
Contribution of Travel and Tourism to Employment	39 million jobs created 8% of total employment in the country
International visitors impact	INR 2130.5 BN
International Tourist Arrival Expected	30.5 billion by 2028
e-visa offered	169 countries as of December 2019
Arrival of Foreign Tourist	10.89 million during 2019
Swadesh Darshan Scheme	Sanctioned project 77, worth Rs. 6,035.70 crore

Source: World Travel & Tourism Council. India 2020 Annual Research: Key Highlights

### MEANING OF HOTEL

The three most important basic needs of human are – food, clothing and shelter. Hotel industry alone provides two basic needs i.e food and shelter (accommodation). The prime purpose of hotels is to give shelter, food, refreshment, and similar services and goods on a commercial basis to the travelers. “A hotel is a structure where you pay to have sleep in and where you can eat meals as well”. “A hotel is an enterprise that provides paid accommodation on a short-term basis”.

A hotel is the place where the tourist who is away from home becomes a customer or visitor of the hotel and stops being the traveler. Hotel usually offers a full range of accommodations and services, which may include lounges, suites, public dining, banquet facilities and entertainment facilities on payment. Additionally, hotels also offer phone call services, recreational facilities, entertainment, laundry services, travel services, internet services etc. Thus, apart from accommodation the umbrella of services included are restaurant, spa, gyms, swimming pool, travel, web and so forth.

Customer loyalty being of utmost important, every hotel should endeavor to possess an honest relationship with its customers to extend loyalty and thus increase its productivity. For this the hotels should be willing to adapt to the needs and expectation of the customers. They must put a lot of sweat in understanding the customer needs and fulfilling them. Customer satisfaction should be given utmost thought by the management, because it would be more expensive to draw in new customers than retaining the existing ones.

### **REVIEW OF LITERATURE**

**Ajeet & Dharmaraj (2016)** in their research article titled, 'A Study on evaluation of Human Resource Practices in Hotel Industry with special reference to selected Hotels in Chennai City' states that in hotel industry, the perceptions about human resource practices are generally negative. Whatever may be the reason for poor practices, human resource management strategies impact on an organization's overall efficiency. It is very vital for any organization to define the standard practices for management of human resources. The hotel industry is necessarily labour concentrated and this makes HRM practices particularly important. Their paper intensively analyses the human resource practices in hotel industry and therefore the issues faced by the human resource managers in executing the human resource practices.

**Afsanehsadat Omidiani & Seyed Mohsen Hashemi Hezaveh (2016)** in their research article 'Waste Management in Hotel Industry in India: A Review' states that today is the Green Economy age, recycling can provide an excellent benefit to hotel industry. In their study, they reviewed literature in waste-audit, equivalency calculator and cost benefit analysis techniques on hotel properties. Generally, there is lack of scholarly publications to support this area of research. Their paper presents an outline of current waste management practices in India and suggests solutions to some of the major problems. The major objective of present study is about the management of hotel waste to make sustainable business alongside generating profit from the waste. It reveals that proper management of waste can cause higher profit for hotel and save environmental contamination

**Inder Singh (2019)** in his research titled, 'A review paper on Hotel Industry – A study on Trend in Hospitality Industry and Types of Hotels' states that openness may be a standout amongst the foremost vital and necessary exercises with regards to appealing traveler goals. High turnover of vacationers, which brings improvement and progression of all the available assets of a visitor domain triggers and advancement forms within the convenience business and raises them to a larger amount of useful and activities. As of late as a standout amongst the most appealing goals for travelers from everywhere throughout the world has transformed into an exceptionally basic subject of perceptions of various creators from the extent of the travel industry and cordiality. So as to mirror the fast growth of guests to the fast development and expansion of the hotel business, just as the all out social item, and what are the advantages or deficiencies of such progression are only a portion of the inquiries that require a couple of answers.

### **OBJECTIVE OF THE STUDY**

1. To identify customers needs and expectations aspects of services.
2. To recommend to overcome the gap between expectation of the customer and services offered by hotels.

### **DATA COLLECTION**

- **Primary Data** Primary data is collected to get an insight into the views of respondents about the aspects of services provided by hotels. The study was conducted by selecting 50 respondents based on convenience sampling who were in the age group of 30 to 45 years who traveled not only in Mumbai but other city of the country for multi reasons and stayed in 2 stars to 5 star hotels
- **Secondary Data** Secondary data was collected from various review and research papers as well as from other authentic source were collected to study the level of customer satisfaction. It helps in preparing questionnaire and arriving at making useful suggestions.

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**BASED ON DULY FILLED QUESTIONNAIRES RECEIVED THE FOLLOWING ARE FEW REASONS OF CUSTOMER DISSATISFACTION****1. At the Entrance**

- Car Parking Car Parking for those customers who come by car, it was few time very difficult to find a parking space. There are times it takes more than 20 minutes to hut a parking area/lot

**2. Reception Service**

- Check in & Check out Most visitors at the hotel arrive tired and then they find that there is time to check in either because of the procedures or because of room not being ready in spite of prior booking. Most guests are in a rush to leave and once they arrive at the counter the bill is not ready or there is an issue linking to billing.

**3. Room**

- Electric Fittings Customers have to hunt to find all the switches to switch off all the lights. Also, however luxurious the hotel is, plug points for charging too have to be hunted and are not enough or not useable. Few hotels have broken electric fittings which made it very difficult especially when kids are around.
- Lighting Dim lights make to feel depressed. Foreigners like low and yellow lights. Many complained about the bad reading lights. Also there was only one tube light installed in big rooms
- Cupboard Majority of the customers complained that

**4. Restaurant Services**

- Food Quality Mostly there was no problem with quality of food. But a few health-conscious customers felt that diet food should be made available. A few who fast suggested that food that could be eaten during fasting should also be made available at least on special days . At times people are hungry in the night and food is not available.
- Food Delivery Nearly 40% felt that food ordered takes time to come. Few times 2 to 3 reminders have to be given. This wait spoils the mood of eating
- Complimentary Breakfast More than 50% said that they hate going to the area where complimentary breakfast is served. As complimentary breakfast was served as per hotel time schedule

**5. General**

- Wi - fi Facility Most customers complained that hotels do not provide free wi-fi or every 24 hours they have to reconnect. Also the speed if the Wifi is slow.
- Pick Up and Drop Facility Most hotels do not offer pickup and drop facility to their customers. At times on request it is provided but the charges are not affordable
- Stay of Drivers & Maids This is either not provided or provided at a high cost leading to problem.
- Smoking Zone Few hotels do not provide a separate smoking area, this create problem for those who are habitual to smoke

**MEASURES THAT CAN BE TAKEN TO SATISFY THE CUSTOMERS****1. At Entrance**

Appoint a driver for parking the car of the guests and bring it to the front gate whenever required by the guest. As far as possible parking must be offered without any additional charges

**2. Reception Service**

- A friendly welcome on arrival will take away at least 50% of the tiredness.
- A quick check- in/out procedure to be adopted. They should be quick in verifying documents and see that bill is prepared as per the instructions of the guest.
- If prior booking is done and arrival time of the guest is known then the room must be kept ready.
- Serve welcome drinks / clean drinking water on arrival of guests. This will remove the customers' tiredness too.

- Increase sitting facility in the lobby. The lobby must be clean and as far as possible must have air conditioned installed
- Staff must be trained to give undivided attention to the customer at the front desk
- The bell-boy could while taking the guest into the room guide the customers on various switches and other needs

**3. Room Services**

- Plug points be increased. Atleast two in one room
- There must be minimum two tube lights in each room
- There must be at least two charging points
- All the electric fittings must be well maintained
- 24 hours room services must be made available
- Provide microwave in the room
- Hair dryers must be made available
- Choice of hard & soft bed must be provided
- Proper arrangement must be made to store clothes and other belongings
- Extra mattress must be made available on request
- Food must be served in rooms , specially breakfast and dinner
- Intercom must be installed in room
- Drinking water facility must be arranged in the room

**4. Restaurant Services**

- Diet food must be available
- Delivery time must be reduced and in case there is any delay, restaurant must inform the customers
- Restaurant must send 'Today's Special Menu' on customers phone
- Complimentary tea must be offered to the customers in his room
- There should be provision of some food during night time also

**5. General:**

- Today's guests must be provided with Digital Hospitality. Online access at home, work or on journey enables them to be multi-connected. Internet is now their lifeline. Internet services must be provided free of charge
- Provide free pick up and drop facility from adjacent railway station or airport. Else have a tie up with those at railway station and airport to pick them up and drop them at affordable rates.
- A separate small dormitory kind of place with separate exit may be kept for drivers and maids.
- Have a separate Non-Smoking Floor/Area
- Flexi check-in and check-out time option be given to make it easy
- The hotel can provide shuttles to the town for a charge. Since it is by the hotel, it creates more trust and confidence in the minds of the customers.
- 24 hours Doctor on Call and other emergency services. First aid kit must be kept at the reception counter and must be replaced in case of need.
- With people becoming health conscious Health Club Facilities may also be provided.
- Staff must guide customers on request
- Be polite and respect each customer

- Staff must be well dressed
- Greet guest
- ATM facility must be near the hotel
- Online payment / payment bank facility must be made available
- Tour guide be made available
- Free meals for child upto 6 years is appreciated

### **CONCLUSION**

The estimate for the hotel industry in India shows that its future is really bright. With revival within the global economy, global tourist inflow into the country and also domestic tourist movement within the country is expected to increase. With FDI and hosting of international sports events and trade fairs and exhibitions in the country rise in hotels also is anticipated. With the same competition is going to be tough.

What is now necessary in Maximum Customer Satisfaction. Since hotel industry is an element of service industry, satisfaction depends on various aspects of services – tangible and intangible provided by hotels. It is clear that the requirements of a customer are based on tangible and non-tangible aspects of service provision.

A loyal customer is a customer who keeps consuming the services of a hotel and keeps recommending the services of the hotel to other known people. Promise to customer satisfaction increases the probability of winning their loyalty as well. Different parts of the hotel operation like rooms, reception, lobby, restaurants, gym, spa, etc. directly affect the image of the hotel. Hotels being part of service industry, hotel staffs are the key to customer satisfaction. Their flawless form and the conduct of those providing the services is a major factor when it comes to satisfaction. The last aim should be the feeling of the customer that “Wow! I got more than what I paid for”.

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**ACCESSIBILITY OF E- BANKING DURING COVID-19 IN INDIA**

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**Dr. Neha Goel<sup>1</sup> and Dr. Jignesh Dalal<sup>2</sup>**<sup>1</sup>Head, Department of Economics, Nirmala Memorial Foundation College of Com. & Sc.<sup>2</sup>Head, Department of Accountancy, Nirmala Memorial Foundation College of Com. and Sc.**ABSTRACT**

*Banking has modified from the old traditional way of depositing and withdrawing the money to current scenario E- banking, that has enabled the clients to access their banks virtually from anywhere and anytime through any electronic communicative devices and facilitate themselves with just a click of a enter in a fraction of moment. It has provided innovative ways of balance enquiries, fund transfers, and other facilities with the help of a simple electronic machines or applications. In this pandemic the use of E-Banking has increased along with the extra services given by the Banks to conduct immediate transfer of funds and much more. Almost all banks have their personal applications for the transaction, and above all, most of the mobile applications (not a part of banks) like Google pay or government made application like BHIM etc. are giving more comfort to the people in this COVID situation. Digital banking was also promoted by government, as it is one the way to maintain social distancing. Therefore, this study is a research towards finding the growth in the E- Transactions which helped us during the COVID-19 pandemic. People literally felt safe from the infectious virus by the E- Payment of their bills, etc.*

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**INTRODUCTION**

After demonetization in 2016, Pandemic was the second most dreaded situation in Indian's life, where Government started giving more emphasis on cashless transactions. Customers can do online transactions without going to the bank. In this pandemic situation it is the safest way of doing payments. The clients don't have to wait in the queue and welcome the virus to attack them. The banks also have no worry about liquid amount availability with them. E- Banking as become a new normal in this Pandemic.

On March 25, Indian government had imposed lockdown due to COVID situation. It was a rationale initiative by the Mr. Narendra Modi to keep people indoors, and safe. Many banks were facing difficulties in providing its banking services to the nation. So, the circumstances demanded a shift from offline banking to online banking, from filling up the withdrawal slips to BHIM services or Google pay or Mobile banking Apps.

**OBJECTIVES: -**

1. To analyze the impact of COVID-19 on E-Banking services
2. To realize the movement from offline banking to online banking transactions during Pandemic.
3. To observe the ratio of E-Banking promotion with the advantage of social distancing in this Pandemic.

**REVIEW OF LITERATURE**

(Deshwal, 2015) analyzed in her research that smart phones have been facilitating E-Banking services in India and contributing to the economic growth of the country with less cost. It is a best way to do financial inclusive growth of the people and reach to the remotest areas of the country. The contribution of banking sector is commendable towards it. She pointed out that people living in urban areas are much prone to E-Banking through advertising campaigns.

1. (Goyal, Pandey, & Batra, in 2012) came to the result in spite of so many facilities and comfort given by E-Banking some of the security measures are also important to follow for avoiding frauds and hacking. Their point of view was to providing an E-banking services but also providing better network and accessibility to use these banking services by each and every member of the nation.
2. (Lakshmi, Gupta, & Ranjan in 2019) government has provided safest UPI payment called BHIM for doing the online transactions, which is quite secured and easy to access.

**RESEARCH METHODOLOGY****SCOPE OF THE STUDY**

The scope of the study is in the parameter of E- Banking facilities in India during COVID-19 pandemic. The research is limited under the deadly situation of COVID-19

**METHODS OF DATA COLLECTION**

This research is purely an analysis and study of Secondary Data collection was done

## SOURCES OF DATA

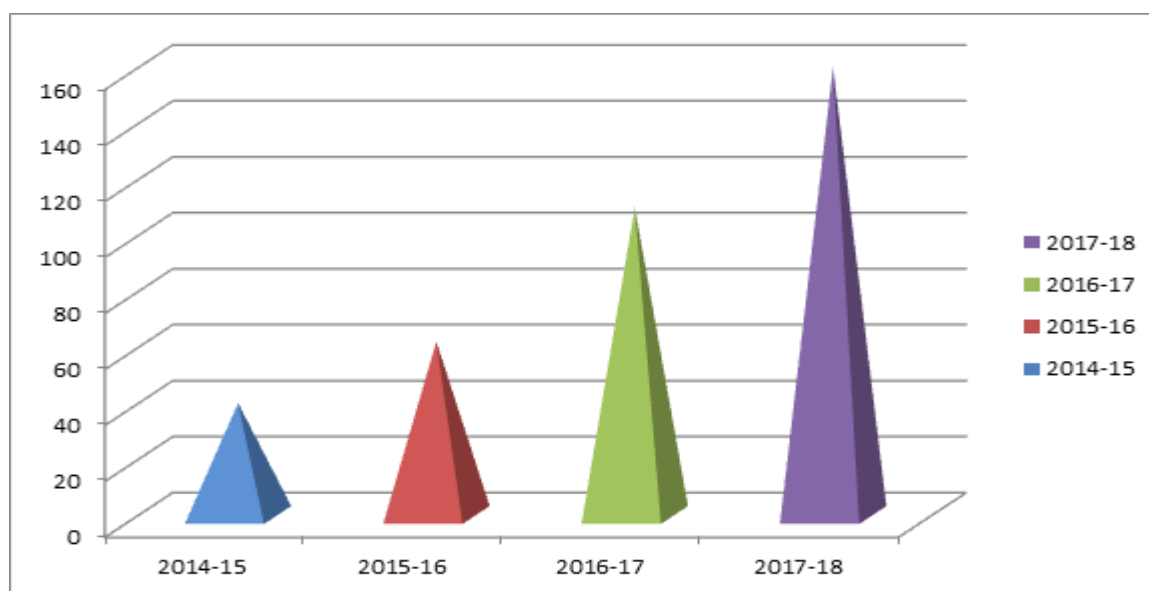
The Secondary data was collected by online articles, newspapers, magazines article various reports and journal etc. to read and review the literatures of E- Banking in Pre COVID-19 and During COVID-19 Pandemic.

## DATA ANALYSIS

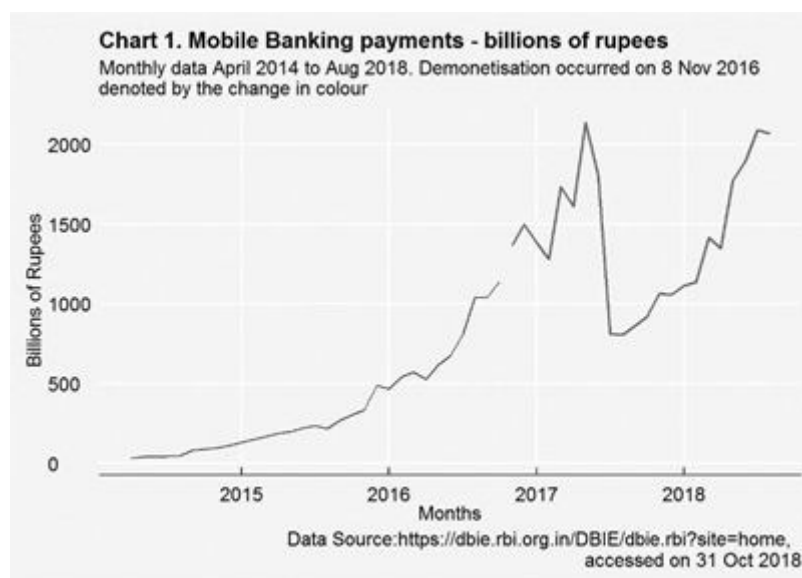
### Digital Payment Trends in India

After Demonetization in 2016, many changes came in the banking sector of Indian Economy. Most of the money in circulation came on the track and people were much prone to keep their money in banks rather in their home locker. Many currency notes were out from the circulation and new note came into being. This has created a drastic change in the thinking process of the common man. Few of the changes in digital transactions can be seen in the below given chart.

Source: Media Reports [www.bjp.org](http://www.bjp.org)



The purpose of demonetization was to bring digital banking accessible in each and every person's mobile. It was an excellent move by the Indian Government till August, FY 2016-2017, and online payments showed a big push in the transactions as compared to the previous year or before that. It was analyzed that there was nearly 624 million offline transactions in 2015-16 to approximately 1100 transactions offline post demonetization. Still people at the retirement age believe into cash. It was difficult for them to shift from cash to online, but now they also got habituated and feel comfortable to do E-Banking



## THE IMPACT OF COVID-19 ON E-BANKING

E-banking will be the new normal for India after COVID -19. It was quite difficult for many countries after 2008 crisis, to accept the digitization and develop a new way of transaction with E-banking applications that

emerges through various banks. Banks have to build a trust, form digital and hack free transactions for banks, and make clients aware of various facilities provided by the bank.

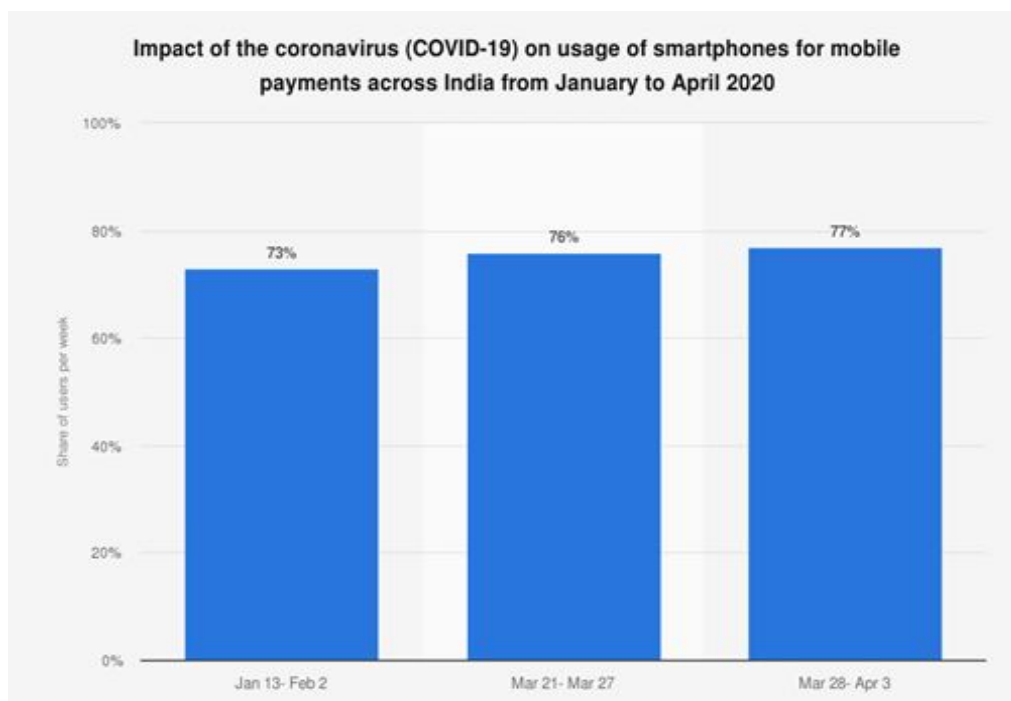
Due to lockdown there was very less offline transaction. RBI report says, that over 91% of ATM's were at their full capacity. That means, deposits grew up to 7.98%. According to RBI, 15.5 lakh crore of debt in the market has been affected, and more than 19 Sectors were affected. The most affected sectors were port and services, aviation industry, infrastructure, mining and minerals, retailing sector and all corporate sectors affected by banking at very high rate.

A company called Fintech is investing in banking sector and provides their internet infrastructure and technology to various banks to able to serve customers with better facility and safest transactions. In the detestable new normal, we are feeling and analyzing a new environment, where everything is just one click away. We are seeing much faster and reliable transaction pattern. User apps like Paytm, Yono (SBI), PayZapp, Google pay, BHIM and many more are providing quite fast and easy services to all their clients.

E-banking transactions in January 2020 were 14,402.70 lakh which had shoot up in June up to 16,188 lakh. (Source: RBI Combining all 354 banks of India recognized by RBI of Public and Private sector)

It shows that there was an increment in of Rs.7801.31 lakhs from pre-COVID pandemic and during COVID pandemic in June 2020.

One of the reports from PWC says that, the overall clients are changing from offline to online at a greater speed.



As per the graph, an increase of 4% transactions can be seen under the duration of 4 months i.e. January to April due to pandemic situation. The major reason could be a lockdown commencing in March.

In Economics time's article internet subscribers will increase up to 835 Million by 2023. Phone internet users are increasing at a rate of 152% pa. Government is promoting Jan Dhan Yojana for financial inclusion programme which has increased the banking accounts at zero balance and around 80% new banks were opened for smart phone and mobile internet. (Source: Statista)

Research says that rural and urban people spend almost (25 – 26%) of the amount of their budget on mobile phones.

World's Largest Digital Literacy Programs are running by the government which leads people to get prone to new technology. Schemes like **Pradhan Mantri Grameen Digital Saksharta Abhiyan** (PGMDISHA) and E-Kranti were promoted with under the umbrella of Digital India which provides, E-banking, Digital Agriculture, Healthcare, Education, passport and other service.

As per the report of Gadget 360 NDTV (Studio, 2020), there is 15% rise in the mobile market after 2018. Techarch stated that in Dec 2019 around 77% of Indians were having mobile phones.

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It was analyzed that the growth in the number of E-Banking services were very less in the years 2012-2014, which has increased to a great extent after 2015, got double than the previous year i.e., 171.9mn transactions in 2014-2015. The total number of transactions increased in 2020 was 150 million. (Source: Public and private banking sector data of RBI). Hence COVID-19 is considered as one of the largest catalysts after demonetization to promote the adoption of mobile banking in India.

## CONCLUSION

E Banking has increased in this pandemic like a fire, but it was not a sudden growth. It was a slow and gradual growth. As many people lost their job, but many got promoted also due to economic growth in the banking sector. It was revolutionary change in the banking infrastructure. E- banking has become a new normal in 2020 due to the schemes launched by government such as Pradhan Mantri Grameen Digital Saksharta Abhiyan (PGMDISHA) and E-Kranti under the Digital India Program. It is expected that Digital Payments in India grows up to 71.7% by 2025: (Report. ACI ) A new Worldwide released a new report indicates that almost 70.3 billion real-time payments transactions were increased in 2020, which was only 41 per cent as, compared to 2019.

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**DIGITAL TRANSFORMATION IN INDIA**

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**ABSTRACT**

*Day by day global trend is moving towards digital innovations, India also under leadership of honourable Prime Minister Mr. Modi on July, 2015 came up with the campaign that focuses on bringing the transformation in each sector through many ways of digitality.*

*It all started in November, 2016 with demonetisation of high value currency of Rs.500 and Rs.1000 denominations which resulted in brilliant increase in virtual payments. Many changes took place in current days such as UPI (Unified Payments Interface), BHIM (Bharat Interface for Money) apps and digital wallets came into place for easy shift to virtual bills in India. The entire global in recent years are transferring toward all matters virtual for a while now. However, the Year 2020 placed into consideration the importance to evolve to digital generation as early as possible. This model took place nearly immediately with the lockdown getting into effect, specifically for virtual bills in India.*

*The Indian authorities has been selling and propagating online bills aggressively, beginning with denominations lower back in 2016. 'Digital India' were the guiding pressure of many financial and economic choices that driven Indians to exchange to online bills. The knowledge for this study is collected through secondary sources like websites, analysis journals, newspapers, magazines etc.*

*According to [cashlessindia.gov.in](http://cashlessindia.gov.in), the Digital India programme is a flagship programme of the Government of India with a vision to transform India into a digitally empowered society and knowledge economy. "Faceless, Paperless, Cashless" is one of professed role of Digital India.*

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**LITERATURE REVIEW**

Dr. Budheshwar Prasad SinghraulV(2018) : The major findings of the study show that India in terms of using digital payment methods is still very poor in comparison to other developed countries in the world. As many countries are already turned up with their electronic payment system, India is in its beginning stage and all most of all population are mainly dependent on paper cash based transaction because of unavailability of proper internet connectivity, lack of awareness and knowledge of financial transaction, charges on card payments and an operational bank accounts.

Ashish Das, and Rakhi Agarwal, (2010) in their article "Cashless Payment System in India- A Roadmap" Cash as a mode of payment is an expensive proposition for the Government. The country needs to move away from cash-based towards a cashless (electronic) payment system. This will help reduce currency management cost, track transactions, check tax avoidance / fraud etc., enhance financial inclusion and integrate the parallel economy with main stream.

Midha Rahul (2016) concluded that digital India is a great plan to develop India for knowledge future but its improper implementation due to inaccessibility and inflexibility to requisite can lead to its failure. Though digital India programme is facing number of challenges yet if properly implemented it can make the best future of every citizen. So we Indians should work together to shape the knowledge economy.

**DEFINITION OF DIGITAL PAYMENT**

To put it in simple words, a digital payment occurs when goods or services are purchased through the use of various electronic mediums. There is no use of cash or cheques in this type of payment method. For example, in case you purchase something from Amazon and pay for it thru UPI, it qualifies as a virtual payment. Likewise, in case you buy something out of your local general store and select to pay through UPI instead of preferring to give over cash that also is a virtual payment.

According to a report in ET, In India, 66.6 billion transactions worth \$270.7 billion are expected to shift from cash to cards and digital payments by 2023.

**CASHLESS ECONOMY**

In a cashless economy, all transactions are carried out using different types of payment methods and this does not involve the physical use of money for the purchase of various goods and services.

Types of Digital Payment Methods in India are as follows. For more information and details one can visit <http://cashlessindia.gov.in/> website.

1. Banking Cards BANKING CARDS (DEBIT / CREDIT / CASH / TRAVEL / OTHERS)
2. Unstructured Supplementary Service Data (USSD)
3. Aadhaar Enabled Payment System (AEPS)
4. Unified Payments Interface (UPI)
5. Mobile Wallets
6. Bank Prepaid Cards
7. Point of Sales
8. Internet Banking
9. Mobile Banking
10. Micro ATMs

### **BENEFITS FROM DIGITAL PAYMENTS**

In simple terms, the whole ecosystem profits, but to grasp this simple response in a more detailed way, consider who the participants in a digital payment ecosystem are.

**Consumer:** Consumers do not need to handle cash on hand and can easily move funds from one account to another.

**Banks** Banks get their money from the money we save in our accounts. This is their primary source of income because they earn interest by lending the money that we have invested in our bank accounts to those who are in need. Part of the interest is passed on to us as customers, while the rest is used for their activities and earnings. Simply put, if we save more money and keep it in the bank, the bank is able to lend more money at lower rates, resulting in higher returns.

**Beneficiary (Individual or Merchant)** Consider how they handle their finances when we pay money at a store (merchant) or pass money to another person.

**Government:** Because of the scale of their activities, the government is the main beneficiary of all other members. Consider what would happen if a significant portion of the country's transactions were made digitally.

This is why Digital Payments is regarded as a critical economic enabler, and the government is working hard to advance the agenda.

### **SCOPE OF DIGITAL PAYMENT IN INDIA**

Since demonetization, Indian Digital Transformation with regards to payments have become more common. After the Prime Minister declared the demonetization of 500 and 1000 currency notes, Paytm, that had users who were using it as a mobile recharge site, grew into the powerhouse it is today.

Paytm, Google Pay and PhonePe were the most common payment options. Every other shop in almost every part of India quickly adopted these payment methods, and other payment options followed suit as UPI got popular.

In India, digital payments are unquestionably on the rise, and it is a massive industry in which everyone is vying for a piece. Following the rise of providers like Open Neobank, platforms like Razorpay went into payment enabling mode. With their payment APIs, Open Neobank allows people to create payment channels.

### **FUTURE OF DIGITAL PAYMENTS**

During this pandemic, digital payment is a reliable and secure way to make payments while preserving social distance. Due to global lockdowns, the popularity of digital payment services has risen in recent months, and it is expected to continue to rise after COVID-19.

The tech-savvy generation that has already embraced these payment methods will drive the increase in the use of digital payments. Fintech companies are committed to creating new innovations that improve transaction protection and protect consumer data when they make a digital payment. Biometric verification, which involves facial scanners, fingerprint scanners, iris scanners, and other devices, can help prevent fraud and identity theft.

Contactless payments are now gaining popularity as a way to make the process much quicker and far more convenient, enabling consumers to pay without having to use a card or a pin. Furthermore, mobile point of sale (mPOS) systems are indeed a blessing for retailers who want to provide their customers with easy payment methods.

These are among the emerging developments that will shape the future of digital payments.

### **LIMITATIONS OF DIGITAL PAYMENTS**

- Internet access, financial and technical literacy are also important factors.
- India's retail sector is dominated by small businesses. They are unable to invest in electronic payment infrastructure due to a lack of funds.
- Consumer awareness may also be a stumbling block. And those with credit cards are unaware of the advantages of cashless transactions. Cash, on the other hand, is considered by most of credit card users to be the quickest method of transacting. It is widely assumed that getting cash aids in better negotiating.
- Most card and cash users are concerned that using cards would result in higher fees. Furthermore, non-users of credit cards are unaware of their privileges.

### **SECURITY OF DIGITAL PAYMENTS**

To a large extent. We would say it's better than other nations. India does have one of the world's most advanced payment systems and risk reduction strategies. To combat fraud and ensure better compliances and procedures for secure digital payments, the RBI releases mitigation steps to banks on a regular basis. To protect yourself from fraud, make sure to do the following.

- Often pay with a chip and pin card.
- Make sure you're paying with a pci-dss, master code safe and sisa approved sites when making an online purchase. The listed certificates' logos can be found on the home page or on the payment gateway page.
- If you discover a fraudulent transaction that you didn't sanction, contact your bank right away. The quicker you warn your bank, the more time they have to investigate and prevent the fraud.
- Never give out your card information to anyone. The same goes for account numbers. Maintain their secrecy.
- Avoid e-commerce sites that lack the certificates listed in point number two.
- There are a few ideas that came to mind as a way to protect ourselves from fraudsters.

### **INDIA IS PREPARED TO ACCEPT DIGITAL PAYMENTS**

According to Indian Express article, In 10 yrs, 43% yearly growth seen in digital payments. From 498 crore transactions with a value of Rs 96 lakh crore handled during FY 2010-11, digital payments have grown to 1623 crore transactions with a value of Rs 3,435 lakh crore in FY20.

In India, the digital payments market is expected to expand in the coming years. India's economy would have improved by that time. As a result, digital transactions would represent a small portion of the economy.

Now let's look at India's digital payment readiness. There are several roadblocks along the way right now. If one thinks back to the 2005–2006 period, similar concerns regarding India's readiness for mobile and smartphone could have arisen. In today's India, mobile phones are the primary mode of communication. Mobile is used to operate many small and very small businesses. In today's world, mobile has become a major enabler of connectivity.

Similarly, mobile payments are increasing, and with the levers at our disposal and barriers being consistently eliminated, India is very likely to become a big adopter of digital payments.

### **CONCLUSION**

- In rural India, the literacy rate must be raised, and the public must be convinced of the benefits of digital transactions. For the ease of transactions, rural India should have a decent internet link. Reduced rates of mobile phones and other electronic devices will effectively increase smartphone penetration in rural India. The government could hold digital literacy workshops and raise awareness in rural areas.

- Inbrahimpur, a village in Telegana, is India's only non-cash village. It is the product of the combined efforts of both of the area's public and private banks. Other Indian villages may benefit from the same concept.
- Digital transactions must be taught to Mahila Mandals and Gram Panchayats.
- By announcing Payback and Lucky Winners, the government will promote digital transactions.
- BHIM, RuPay, UPI, and USSD are all abbreviations. NGOs, startups, and the government should all come up with innovative ways to get every person into the digital economy.

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**AN EMPIRICAL STUDY ON POPULARITY OF SERVICE DELIVERY APP ZOMATO AMONGST YOUTH IN MUMBAI**

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**Dr Poonam Kakkad and Mr. Milind Sawant**

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**ABSTRACT**

*The paper, particularly examines the growth and relevance of digital apps in the food delivery systems run by the food providers particularly fast-food companies in India. The main purpose of this paper is to throw a light on popularity of service delivery app Zomato amongst youth in Mumbai. To study the objectives the researcher has used both secondary and primary data. A total number of 200 respondents were formed as a sample belonging to Mumbai. Data was accumulated through well-structured questionnaire.*

*Statistical tools like Central tendency, Cross tabulation and Chi Sq test were used to study the objectives and test the hypothesis of the study. The study reflected that There is no association between age and reasons to prefer food service delivery zomato app. Finally the paper suggests a few strategies which could be adopted by them for sustainable business in the days to come has been suggested in the paper.*

*Key words : Food delivery service app Zomato and popularity*

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**INTRODUCTION**

Food delivery assisted through digital apps has developed as one of the fast-growing sectors in the e-commerce space. The arrival of digital tools has conferred a different outlook on the food industry. Consumers have the pleasure to pick from a variety of cuisines, anywhere, anytime from a array of food providers listed in the e-commerce space.

Further pulls like no minimum order value and the host of payment options like net banking, digital wallets, and cash on delivery all have increased the consumer convenience. Reduction in urban-rural divide with easy access to smartphones has rushed the growth and acceptance of online food delivery systems. Companies have remodelled their business strategies on a modern digital platform to keep pace with the customer's changing needs and preferences.

**OBJECTIVES OF THE STUDY**

1. To study the reasons for preference of Zomato food delivery service app.
2. To study whether gender and age has any association with preference for use of Zomato app.

**REVIEW OF LITERATURE**

- Serhat Murat Alagoz & Haluk Hekimoglu (2012) Determined a clear growth in e-commerce with a similar growth in the online food industry. Use of Technology Acceptance Model (TAM) model to study the online food ordering system was made. Effortlessness and helpfulness of the online ordering and delivery services has been stressed as a key factor towards the acceptance and growth of these services and vital reason for consumer preference for these services.
- Dr. Gomathy Thyagarajan (2015) Published a study on the Zomato in the form of a case study. The study intended at an overall analysis of the brand by taking into consideration several parameters like marketing strategies, competitive strategies and global avenues.
- Aniruddha Deshpande (2016) Conducted a market and consumer analysis for Zomato with special emphasis on new and upcoming opportunities for food delivery services. This was done by conducting a SWOT analysis on emerging markets. Overall, the study projected Zomato as an excellent means of serving customers as it rated high on several consumer perception parameters as compared to its counterparts.
- Harshleen Kaur Sethi (2017) studied several factors like geographical coverage and customer support to analyze the responses. This was accompanied by a complete interpretation of usage of social media effectively by the brand. The positioning and communication strategy of the brand was associated, and a gap was found in terms of effective execution.
- Anshul Sharma (2017) made a comprehensive study on the infrastructure of Zomato including factors like Zomato treats, Zomato Gold etc. and successfully correlated it with the sales management techniques of the brand. Keeping in mind sales planning, automation and other key factors. The study concluded by pointing

out certain problems in the execution and operation and overall management of the system in terms of recruitment and data authentication.

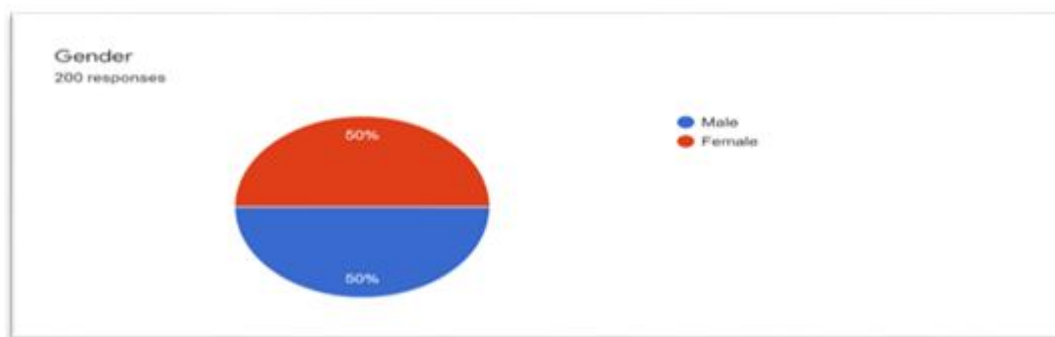
## RESEARCH METHODOLOGY

### Research methodology

- Data collection and measuring instrument - Both Secondary and Primary method was used The researchers used a self-administered questionnaire to conduct the study.
- Sample unit - Out of the total universe of consumers in India, Female consumers from Mumbai are taken in for the study
- Sample size - The researchers, in the study used a sample size of 200 female consumers from different age groups of Mumbai.
- Statistical analysis - The data was analysed using the Statistical Package for Social Sciences (SPSS) software. Various statistical tools like means score, chi square test and central tendency method were used for the study.

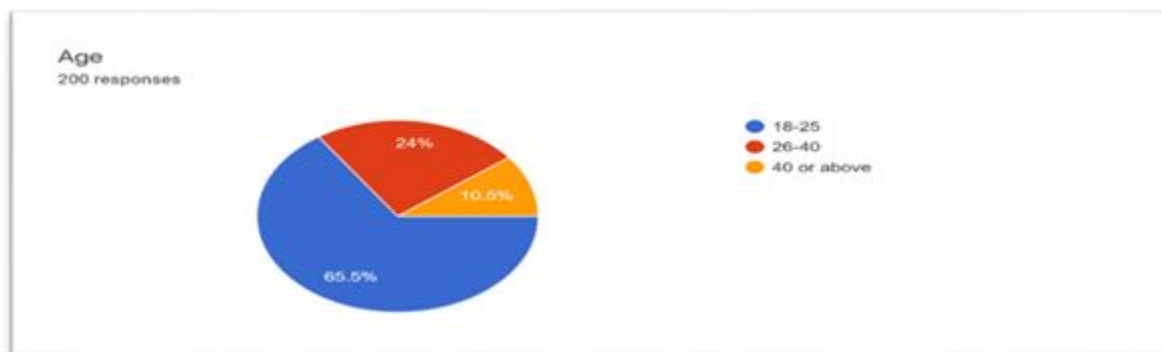
## DATA ANALYSIS

### 1. Gender wise response



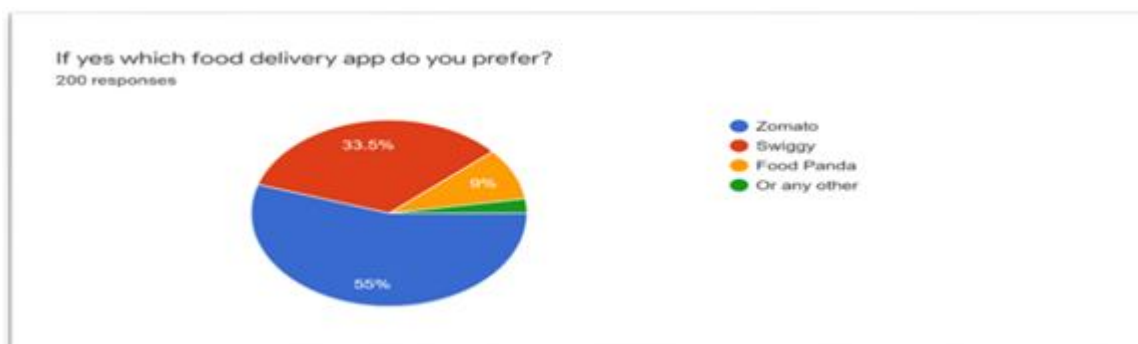
The total number of respondents in the survey were 200, inclusive of 100 male and 100 female.

### 2. Age wise Composition



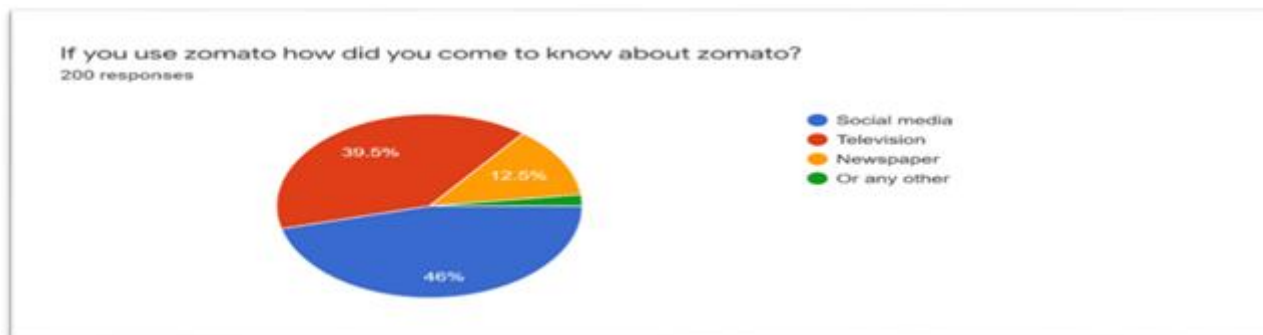
Of the total respondents 65.5 percent were from the age group of 18 to 25 years, 24.00 percent were from 26 to 40 years range and 10.5 percent were 40 above age.

### 3. App wise preferences for food delivery services



The survey investigated the preferred food delivery app and maximum of the respondents stated Zomato which is shown at 55.00 percent. Followed by is Swiggy which is 33.5 percent and food panda is 9.00 percent only. This shows the Zomato is quite popular and preferred amongst consumers. Thus supporting the study of Aniruddha Deshpande (2016).

#### 4. Source of Information about Zomato app



On further enquiry in the survey, respondents were asked the source of information through which they got aware about the Zomato app. 46.00 percent of respondents replied social media platforms. Whereas 39.5 percent said Television as source of information. Thus, it can be interpreted and suggested that promotions for Zomato apps can take place on social media platforms.

#### 5. Reasons to Prefer ZomaTo App



The study revealed that 46.5 percent of the total respondents mentioned discounts offered as the main reason for preference of Zomato app.

#### Hypothesis Testing

H1 = There is an association between age and reasons to prefer food service delivery zomato app.

H0 - There is no association between age and reasons to prefer food service delivery zomato app.

		Discounts	Or any other	Quality of food	Services	Total
18-25	Observed	<b>60</b>	<b>6</b>	<b>43</b>	<b>22</b>	131
	Expected	60.92	4.59	44.54	20.96	131.00
	% of chisq	0.3%	8.4%	1.0%	1.0%	10.7%
26-40	% of total	30.0%	3.0%	21.5%	11.0%	65.5%
	Observed	<b>26</b>	<b>1</b>	<b>16</b>	<b>5</b>	48
	Expected	22.32	1.68	16.32	7.68	48.00
40 or above	% of chisq	11.7%	5.3%	0.1%	18.0%	35.2%
	% of total	13.0%	0.5%	8.0%	2.5%	24.0%
	Observed	<b>7</b>	<b>0</b>	<b>9</b>	<b>5</b>	21
	Expected	9.77	0.74	7.14	3.36	21.00
	% of chisq	15.1%	14.2%	9.4%	15.4%	54.1%

	% of total	3.5%	0.0%	4.5%	2.5%	10.5%
Total	Observed	93	7	68	32	200
	Expected	93.00	7.00	68.00	32.00	200.00
	% of chisq	27.1%	27.9%	10.5%	34.5%	100.0%
	% of total	46.5%	3.5%	34.0%	16.0%	100.0%
		5.18	chi-square			
		6	Df			
		.5207	p-value			

From the above table it is observed that the p value is greater than 0.05 which is 0.5207. Hence the researcher fails to reject the null hypothesis and say that there is There is no association between age and reasons to prefer food service delivery zomato app.

**H1 = There is an association between gender and reasons to prefer towards Zomato**

**H0 = There is an association between gender and reasons to prefer towards Zomato**

		Female	Male	Total
Discounts	Observed	<b>41</b>	<b>52</b>	93
	Expected	46.50	46.50	93.00
	% of chisq	19.6%	19.6%	39.2%
	% of total	20.5%	26.0%	46.5%
Or any other	Observed	<b>5</b>	<b>2</b>	7
	Expected	3.50	3.50	7.00
	% of chisq	19.4%	19.4%	38.7%
	% of total	2.5%	1.0%	3.5%
Quality of food	Observed	<b>36</b>	<b>32</b>	68
	Expected	34.00	34.00	68.00
	% of chisq	3.5%	3.5%	7.1%
	% of total	18.0%	16.0%	34.0%
Services	Observed	<b>18</b>	<b>14</b>	32
	Expected	16.00	16.00	32.00
	% of chisq	7.5%	7.5%	15.1%
	% of total	9.0%	7.0%	16.0%
Total	Observed	100	100	200
	Expected	100.00	100.00	200.00
	% of chisq	50.0%	50.0%	100.0%
	% of total	50.0%	50.0%	100.0%
		3.32	chi-square	
		3	df	
		.3446	p-value	

From the above table it is observed that the p value is greater than 0.05 which is 0.5207. Hence the researcher fails to reject the null hypothesis and say that there is There is no association between age and reasons to prefer food service delivery zomato app.

## CONCLUSION AND SUGGESTIONS

Everything that Zomato does today, equips it uniquely for the future. As the industry standard for restaurant reviews, and as one of the largest players in delivery and dining out, we it has unparalleled access to user insights, and relationships with restaurateurs. This is helping it design and scale business models that make this future viable. In this research paper, using a simple questionnaire, we assessed Zomato's current positioning and its correlation with consumer perception. When the expenses are done by an individual during on online food facilities and traditional dining it was observed that an individual spends more money while dining out for the sake of reflecting a good social status. The findings suggested majority of respondents were more attracted towards Zomato than other competitors. The reason behind was the utilization of better promotional strategies schemes, discounts and user-friendly mobile application by Zomato. Furthermore, the majority of respondents

were found more satisfied with the food quality and fast delivery of Zomato and a wider range of restaurants and choice of food.

The present study it can be concluded that online food delivery services have become a recent trend and choice among the youth of Mumbai . This trend has brought numerous new business opportunities not only for the young entrepreneurs for their startups but also for the public sectors to start their new ventures under various public-private partnerships.

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## A STUDY ON THE IMPACT OF CONSUMER DEMAND OF THE NEW E-MARKETPLACES WITH REFERENCE TO COVID -19 PANDEMIC IN INDIA

Ms. Rekha Yadav and Ms. Sheetal Bhanushali

### ABSTRACT

*The study explored the impact of consumer demand of the new e market places with reference to covid-19 pandemic in India. The objective of the study is to study about the new e market places available in India and to see the difference between e commerce and e market places and to study about the changing consumer behaviour towards online shopping during covid-19 pandemic and also to know the strategies adopted by seller to increase the demand in the E- marketplaces during pandemic. The co-authors has collected information required for the study from various sources by using secondary data. We highlighted the meaning of demand, E-market places and covid-19 pandemic. We also stated different types of E- market places. We also tried to give the difference between E- commerce & E-market places and we also highlighted different factors which can affect the buying behaviour of the customer during pandemic and also gave strategies adopted by seller to rise their sales during covid-19 in India. So the finding of the study is to mention that E-market industry played a major role in the life of customers and sellers. It also boosted the economy of the country by increasing sales through E- market platforms during epidemic situation.*

*(Keywords- Demand, E- market places, covid-19, consumer behaviour, strategies)*

### 1. INTRODUCTION

Demand refers to the willingness and ability of consumers to purchase a given quantity of a good or service at a given point in time or over a period in time.

Demand is something which consumer wants something but it is premium and also has ability to buy it, then his wants are converted into demands. A small difference between want and demand is desire. A consumer may desire something but he may not have the ability to fulfil his desire.

$$\text{Demand} = \text{Desire} + \text{Ability to pay}$$

For instances Pratik has 10 lacs rupees with him and he wants to purchase BMW which cost around 37 lacs-87 lacs though he has desire to buy BMW but his ability to pay for BMW can't be fulfilled. As he can't purchase BMW so he desires to buy Maruti Suzuki Swift which cost around 6 lacs rupees so he can fulfil his demand as he is able to pay for it.

E-Marketplace gives platform to no. of buyers and no. of sellers for buying and selling various types of goods and services. It's a big platform which connect buyer and seller easily through electronic medium. People usually think that E-commerce and E-market are same or have same meaning but it has a small difference that E-commerce have single seller in one platform whereas, E market has multiple seller in one platform.

For instances Mr. Shah is sole proprietor who deals in hand made craft products but due to Covid-19 Pandemic he is unable to sale physically so E-Market place gave him platform to reach no. of buyer globally and he was able to sale his product via electronic mode.

Covid-19 is a contagious virus which can be easily transmitted from one human beings to multiple human beings. It can cause symptom like fever, cold, breathing issues, body ache, headache, skin rashes, and in severe cases it also result in organs failure.

Due to covid-19 pandemic physically market were drastically affected and E market got a root in the mind of the consumer as it provided essential goods and services very easily just by ordering online. Even seller got a support to overcome with this pandemic situation by selling through E-market platform.

### 2. OBJECTIVE OF THE STUDY

1. To study about the new e-market places.
2. To study about the difference between e-commerce and e-market places.
3. To study about the changing consumer behaviour towards online shopping during covid-19 pandemic.

4. To study the strategies of sellers to increase demand in the market during covid-19 pandemic.

### 3. RESEARCH METHODOLOGY

The co-authors has collected information required for the study from the different sources. The secondary data of the above study is collected by referring to various books, journals, relevant articles of newspaper, magazines, published reports and research papers.

### 4. LIMITATION

Since the present study is based on Secondary Data, hence the accuracy and reliability is not so comparable with the primary data.

### 5. THEME OF THE PAPER

**“A study on the impact of consumers’ demand of the new e-marketplaces with reference to covid-19 pandemic in India”**

### 6. LIST OF ONLINE MARKETPLACES IN INDIA

**Flipkart** – Flipkart is the India’s largest online marketplace by shipments. Market leader Flipkart has 37% share of the entire industry.

**Amazon** – Amazon is the second largest in India. Amazon India’s unit market share surged to an estimated 21-24% from 14% during March 2016.

**Snapdeal**– Snapdeal is known for electronics and it adds up to 14% of the total market share.

**Myntra**– Myntra is an Indian fashion e-commerce marketplace company headquartered in Bengaluru.

**Jabong** – Jabong.com is the best Online shopping Portal in India for men, women & kids for shoes, clothing, watches, sunglasses. Jabong was once thought to own one-quarter of India’s fashion e-commerce market, making it the chief threat to Myntra.

**eBay**– eBay India, one of the earliest online marketplaces in the country.

**Fashionara** – Fashionara is India’s one of the largest fashion apparel store. We have a recent news that Fashionara has been shut down recently.

**Paytm** – Paytm is an Indian e-commerce website headquartered in Noida, India.

**Limeroad**– Limeroad encourages local Indian artisans and craftsmen to sell their goods online.

**Shopclues**– The biggest range of Mobile Phones, Laptops, Home Appliances, Electronics, Fashion, Shoes and Home & Kitchen products at the lowest Prices.

### 7. THE DIFFERENCE BETWEEN E-COMMERCE AND E-MARKET PLACES.

SR.NO	POINTS	E-COMMERCE	E-MARKET
1	Meaning	An E-commerce website is an independent platform where multiple buyers purchase from a single seller.	An online marketplace is a platform of product listings from multiple sellers.
2	Competition	There is no competition on the platform as he is the only seller on his platform.	Seller has to face competition due to multiple seller on the platform.
3	Control	Seller has total control on the platform.	No or less control.
4	Cost	Higher cost as seller has to pay for third party software subscription fees, website hosting fees.	Less cost as seller has to pay only commission to the marketplace.
5	Marketing	Seller has to do its own marketing for selling.	On the other hand, they get support from marketplace. For example amazon support his seller for marketing the products.
6	Process	The process is difficult & time consuming.	Whereas, process is smooth and less time consuming as compared to E-commerce.
7	Examples	Dominos, Mc-Donald’s etc.	Amazon, flip-kart, e-bay etc.

## 8. CHANGING CONSUMER BEHAVIOUR TOWARDS ONLINE SHOPPING DURING COVID-19 PANDEMIC.

The covid-19 pandemic has effected the life of people across the globe. Last one year we have seen changes in the buying behaviour of the consumer. Since in early march 2020 during lockdown in India we have seen that all physical market were closed. Consumer are very use to buy their product from physical market due to many reason like quantity, quality, varieties, personal attention from seller. But due to pandemic people shifted from traditional purchase behaviour to modern purchase behaviour. The way of looking towards online shopping changed the mind-set of the consumer. They got to know that online shopping has its own advantage of ordering by sitting at home by maintaining social distancing norms and if in case you don't like the product you can easily return it to the seller by without physically visiting marketplaces.

National Retail Federation (NRF) has surveyed on consumer's online shopping behaviour in this epidemic situation and has briefed certain consumer buying behavioural changes as follows:

1. as per the survey results, 9 out of 10 customers have changed their shopping practices.
2. Results are supportive that more than 50% of customers have changed their traditional shopping habits by ordering products online.
3. About 6 out of 10 customers stated that they avoid going to store due to the fear of being infected and ordering necessary goods from online marketing tools.

All these behavioural changes are not permanent but few are going to last permanently. As the society will recover from this survival mode, this digital- online shopping adoption is likely to become permanent. So, in the end, this pandemic situation has been classified into two aspects one is a shift in customer behaviour that avoids public crowded gatherings and second is more inclination towards digital adoption (Shashidhar, 2020).

As we can see the revenue report of E-market places industries, Amazon records 40% jump in revenue in 2020 due to changing behaviour of consumers as customer avoid visiting physical stores. Not only amazon but other E-market likes e-bay flip-kart Myntra has also recorded rise in their profit and shares value in the market during 2020.

## 9. FACTOR AFFECTING CONSUMER BUYING BEHAVIOUR DURING PANDEMIC

**SOCIAL FACTOR:** As Covid-19 is contagious virus so it was important for people to maintain social distancing in the society. So this brought a drastic change in the buying behaviour of the consumer. They preferred online purchasing rather than physically moving to the market for breaking the chain of Covid-19 in the society.

**PSYCHOLOGICAL FACTOR:** As we all know that covid-19 can be easily transmitted from one person to multiple people in the society. So this created fear in the minds of the consumer which further changed the buying behaviour of the consumer and they shifted more towards e market places.

**TECHNICAL FACTOR:** It's one of the important factor which brought big change in the consumer buying behaviour. As now consumers are more tech-savvy because most of the consumers have smartphones & internet facility with them. They can easily access application and orders are just one click away from them.

**POLITICAL FACTOR:** Government took a very big measures to control the spread of novel coronavirus by imposing strict lockdown. So movement of people was restricted from one place to another and this further impacted the buying pattern of the consumer as they were moved more towards E-Market places.

## 10. STRATEGIES OF SELLERS TO INCREASE DEMAND IN THE MARKET DURING COVID-19 PANDEMIC.

As the scale of Covid-19 cases are increasing day by day in India so it is affecting economically and financially very much so E-market industries adopted various strategies which will benefit them and country for longer period of time. Various strategies adopted by E-market sellers are as follows:

1. **Focus on the Existing Customer:** "It is always better to save old rather than looking for new." So it is important to focus on existing customer rather than searching for new customer. If your existing customer are happy from you then they will be your promoters and also loyal towards you. So this strategy benefited to E market seller as they were able to sell even during down -turn of the economy.
2. **Invest in Social Media Ads:** During lockdown people were spending more time on social media so it's a good opportunity for E market seller to advertise and promote themselves via social media. This will not only increase sales of the seller but also it will increase goodwill in the minds of the customers. This strategy boosted their sales & goodwill during pandemic situation.

3. **Good Deal and Exclusive Offer:** If seller want to retain their customer it's always important to provide good deals and exclusive offers to customers. This kind of strategy not only attract existing customer but also getting new customers. Seller can inform about the deals and offer to their customer through social media platform likes Facebook Instagram etc. and they can send even promotional email to their existing customer.
4. **Go Cash-less and Contact- less:**Go cash less and contact less strategy increased demand from customer during pandemic because they were satisfied from not getting infected from covid-19 virus. This strategy benefited both seller and buyer. As it is one of the safest method during covid-19 situation. This further raised the customer and decreased the chances of covid-19 infection.
5. **Online survey:** seller cannot reach to their valuable customer physically for understanding their changing needs and requirement so for increasing the demand E-seller can conduct online survey and can understand customers' needs and requirement. This strategy will help them to understand their customer taste and preference which will rise their sales in the market as they will able to meet expectation of the customer

## 11. CONCLUSION

Thus, covid-19 pandemic has affected human life economically, financially, mentally, physically in a very shocking way. Covid-19 resulted into down turn of the economy because of various business restriction imposed by Government of India. But E- market platform played a very vital role during Pandemic. It not only benefited seller but also buyers to a great extent. E- Market is a big saviour to our Indian economy. It not only balanced wealth in our country but also safeguarded the lives of the people in India. Most of the Sellers were not more aware about E market platform before pandemic but due to pandemic they got to know various E-market platforms available in India through which they can sell their product Online. Consumer buying behaviour also changed due to pandemic situation they shifted from traditional approach to modern approach (online shopping). This mission of "digital India" by PM Narendra Modi can be seen successfully implemented by the people of India during pandemic. Even seller have adopted E-market platform to boost their sales during pandemic situation which further boosted economy of the country.

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**NORTH EAST INDIA AND SUSTAINABLE DEVELOPMENT- A CASE STUDY**

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**ABSTRACT**

*North East of India comprises eight states -Arunachal Pradesh, Assam, Manipur, Meghalaya, Mizoram, Nagaland, Tripura and Sikkim. It constitutes about 8% of the geographical area of India. The North east of India is full of natural resources and accounts for 34% of the country's water resources. It is the entry point to the South East Asian markets. It has the potential to be India's most prosperous region. This research paper explores the rich culture and prosperity of North East India and examines its progress on the UN sustainable development goals. North East region has always been overlooked since the time of independence as one of the key players in the overall progress of India. There is much to learn and imbibe from the values and beliefs which the people of North East India carry. A thriving cosmopolitan culture, a unified and equal society living in harmony and peace for centuries is not a mean thing when you look at the odds against the region. The spirit of North East is never dying and exemplary. It's time we take notice.*

*Keywords North East India, UN Sustainable Development Goals, resources, culture and happiness*

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**INTRODUCTION**

In 2014 Prime minister Shri Narendra Modi announced the Look and Act East policy for directing the special focus on the North Eastern region. This transformed the development landscape of the region.

The key developments worth mentioning as far as the development of the region is concerned are:

1. Construction of India's longest rail cum road bridge-The Bogibeel bridge with a length of 4.94 km in 2018.
2. Connecting Kohima with the national railway network and laying down of 900 km track s of broad guage in the region.
3. Completion of projects for more than 3800 km of national highways in the region.
4. Representation of Sports icon -Mary Kom from Manipur in the parliament in 2016 and the establishment of first national sports university in Manipur
5. Sikkim got its first airport.
6. Establishment of solar toilets in Manipur making it the first state in the northeast and third in India to have solar toilets.
7. Inauguration of India's longest bridge, the Dhola Sadia bridge, spanning 9.3 km across the Lohit River -a tributary of Bramhaputra.



North eastern region in spite of all its advantages is still one of the backward regions of India with low per capita income, inadequate infrastructure facilities, geographical isolation and inadequate utilisation of mineral resources.

North east is a land of extremities with Meghalaya having the second lowest unemployment rate among the Indian states and Tripura having the highest unemployment rate.

As per SDG India index 2019-20 comprising of 100 indicators, all the north east states scored more than 50 indicating that they are in the category of performers. This is as per the classification of NitiAayog.

- On SDG 1 only Tripura, Meghalaya and Mizoram have performed well. Rest of the states are in a poor state of affairs with Arunachal Pradesh in an extremely poor situation.
- On SDG 2-Assam and Meghalaya scores very low.
- On SDG 3-Assam and Nagaland are way below the standards
- On SDG 4-Assam and Nagaland are again very poor.
- All the states score very poor on SDG 5

All the states score high on SDG 6 AND 7

**Overall, India scored 117 on SDG Index 2020**

#### SWOT Analysis of North East states

Strengths	Weaknesses	Opportunities	Threats
Several tourist attractions	Lack of proper connectivity	Development of the handicraft industry	Overuse of natural resources leading to their depletion
Ethnic tribal culture with unique customs and traditions	Limited tourism infrastructure facilities	Flood management system	Regional connectivity issues
High Gender development index	Scarcity of skilled and unskilled labour	Building infrastructure for trade	Migration of people from rural to urban areas for employment
Rich bamboo and tea reserves	Floods and landslides disrupting life		
Abundance of natural resources	Landlocked states		
Pollution free environment and ideal climatic conditions	Stringent laws related to land acquisition and transfer		

#### Status of (North East States) on the most Basic indicators of development

##### A. Demographics

##### 1.Literacy rate (as per 2015 data)

State	Literacy Rate
Arunachal Pradesh	65.38
Assam	72.19
Manipur	79.21
Meghalaya	74.43
Mizoram	91.33
Nagaland	79.55
Sikkim	81.42
Tripura	87.22

##### 2.Gender Gap in Literacy Rate (Male and Female Literacy)

State	Gender Gap in Literacy Rate
Arunachal Pradesh	14.9
Assam	11.6
Manipur	13.7
Meghalaya	3.1
Mizoram	4.1
Nagaland	6.6
Sikkim	10.9
Tripura	8.8

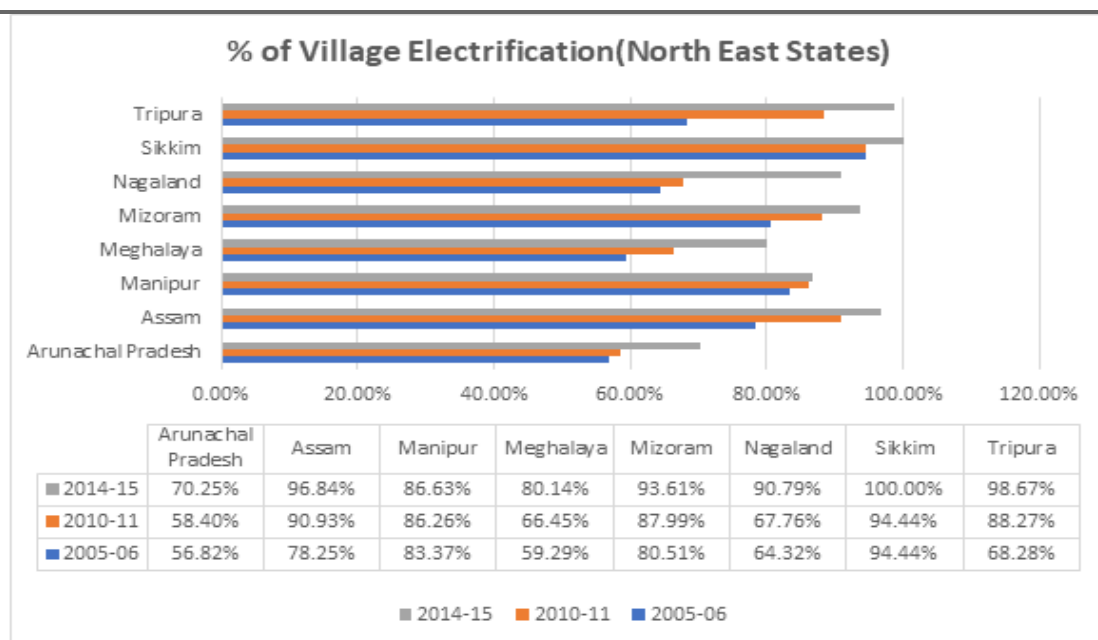
While comparing with the average Literacy rate of the country i.e. 74.04% as per 2015 data only Assam and Arunachal Pradesh are the states who are having lower literacy rate than the national average.

### 3. Sex Ratio

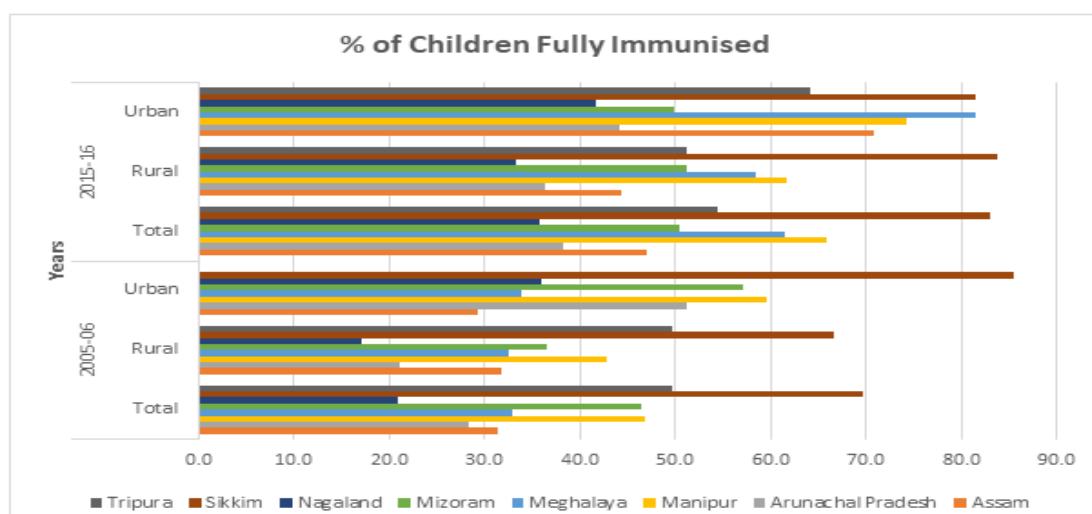
State	Sex Ratio (Females/1000 Males)
Arunachal Pradesh	938
Assam	958
Manipur	992
Meghalaya	989
Mizoram	976
Nagaland	931
Sikkim	890
Tripura	960

## B. Infrastructure

### Electrification



## C. Health (Extent of Immunisation)

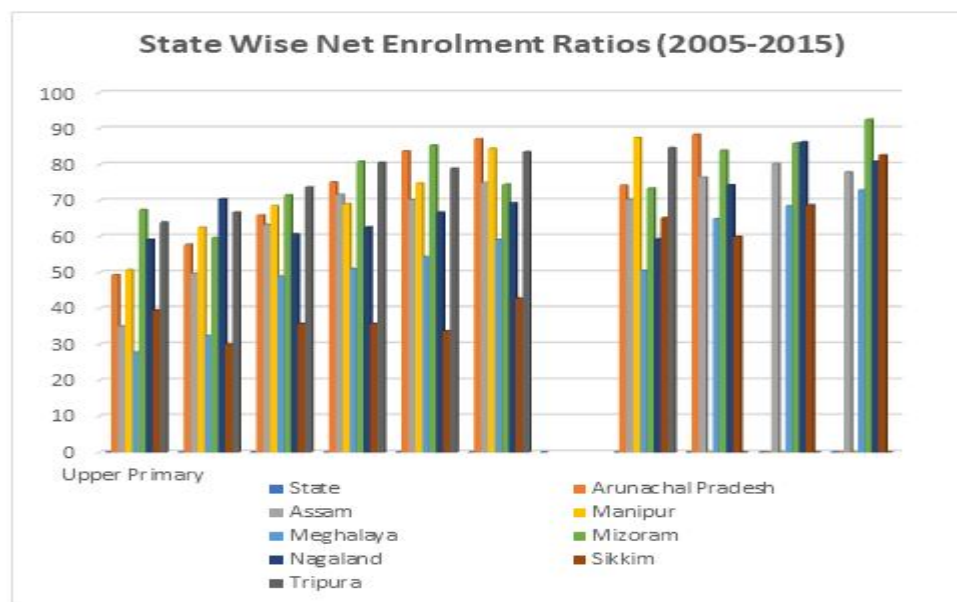


## Infant Mortality Rate

State/UT	2008	2009	2010	2011	2012	2013	2014	2015	2016
Arunachal Pradesh	31	27	25	23	24	24	30	30	36
Assam	64	61	58	55	55	54	49	47	44
Manipur	14	16	14	11	10	10	11	9	11
Meghalaya	58	59	55	52	49	47	46	42	39
Mizoram	37	36	37	34	35	35	32	32	27
Nagaland	26	26	23	21	18	18	14	12	12
Sikkim	33	34	30	26	24	22	19	18	16
Tripura	34	31	27	29	28	26	21	20	24

**(D) Education****Student Teacher Ratio**

State	Student Teacher Ratio
Arunachal Pradesh	15
Assam	18
Manipur	13
Meghalaya	18
Mizoram	12
Nagaland	12
Sikkim	7
Tripura	12

**Net Enrolment Ratios**

	Upper Primary									
State	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2012-13	2013-14	2014-15	2015-16
Arunachal Pradesh	49.31	57.77	65.93	75.07	83.7	87.12	74.24	88.29	-	-
Assam	35.01	49.75	63.28	71.65	70.22	74.93	70.25	76.49	80.22	77.83
Manipur	50.7	62.55	68.48	69.03	74.82	84.44	87.45	-	-	-
Meghalaya	27.82	32.4	49.03	51	54.35	59.16	50.53	64.87	68.41	72.87
Mizoram	67.43	59.67	71.5	80.8	85.36	74.51	73.34	83.93	85.97	92.52
Nagaland	59.08	70.35	60.69	62.6	66.66	69.31	59.33	74.26	86.25	80.89

Sikkim	39.52	30.06	35.74	35.76	33.68	42.81	65.17	59.9	68.74	82.57
Tripura	63.92	66.67	73.69	80.55	78.93	83.51	84.66	-	-	-

**(D) Poverty**

	Number Below Poverty Line (Lakhs)		
State	2004-05	2009-10	2011-12
Arunachal Pradesh	3.6	3.5	4.9
Assam	97.3	116.4	101.3
Manipur	8.7	270.8	197.9
Meghalaya	3.9	12.5	10.2
Mizoram	1.4	4.9	3.6
Nagaland	1.9	2.3	2.3
Sikkim	1.8	43.5	102.9
Tripura	13.7	0.8	82.6

**Comparing the population % below poverty line of North East States with Country average (2011)**

State	Rural	Urban	Total
Arunachal Pradesh	38.9	20.3	34.7
Assam	33.8	20.4	32
Manipur	38.8	32.5	36.9
Meghalaya	12.5	9.2	11.9
Mizoram	12.5	6.3	20.4
Nagaland	19.9	16.4	18.9
Sikkim	9.8	3.6	8.2
Tripura	16.5	7.4	14
India	25.7	13.7	21.9

From the above data it is observed that 50% of the North East States have PBL less than the national average and the gap is fast diminishing.

**PROBLEMS, OPPORTUNITIES AND DISTINCT FEATURES OF THE REGION**

North East India has huge potential in the tourist sector. It is blessed with mesmerising natural beauty, wildlife, historical sites and rich cultural heritage. Wildlife sanctuaries like Kaziranga -a place famous for one horned Rhino, rivers like Brahmaputra and scenic hill stations makes it an ideal tourist attraction.

The north east states have a great potential for renewable sources of energy due to the availability of sunlight, abundant rainfall, rich forest cover and pollution free atmosphere. It is majorly unexplored till date.

Due to inaccessible and difficult terrain the communication and connectivity is a major problem in Northeast for so many years. Hence establishing medical infrastructure to support the population especially in rural areas is cumbersome. So, growth in this sector is relatively very slow and holds lot of scope.

North east region is one of the highest rainfall zones in the world with an average annual rainfall of 2000 mm. It is home to as many as 7 river basins which makes it rich in sources of irrigation. Simultaneously it is also highly prone to natural disasters and hence needs strong infrastructure for prevention and mitigation.

The literacy rate for North East India except for Assam and Arunachal Pradesh is higher than the national average of 74.04% in all the other states.

Mizoram leads the literacy rate with 91.33%. Still primary and secondary education requires a great improvement in the region.

The region is still lagging behind with the rest of the country in agricultural productivity, irrigation, organized marketing facilities and warehouses, crop insurance etc.

GSDP Per capita of Goa and Sikkim are above three times India's average. GSDP per capita of Bihar is three times lower than of India. By 2025 India's population is expected to reach 1.45 billion as per the estimates. North east India has over 53% of all handlooms in India and over 50% of all weavers in India.

Assam accounts for more than 50% of overall tea production in the country and 1/7 th of global tea production which stood at 467.78 thousand tonnes during April-Sep 2018.

India is next only to China in the total Bamboo resources in the world. The north eastern region accounts for 65% of total bamboo resources of India

Meghalaya boasts of a rich natural untouched beauty, wildlife, waterfalls. Manipur is a land of festivities and has a rich history and culture. Manipur is famous for its Dance form-Manipuri, which is one of the most popular dance forms in India.

As far as Gender Equality is concerned the north eastern states have an exemplary track record and are way ahead compared to the most economically developed states of the country.

About 95% of current Mizoram population is of diverse tribal origins who settled in the state, mostly from southeast Asia, over waves of migration starting about 16th century but mainly in 18th century. This is the highest concentration of tribal people among all states of India, and they are currently protected under Indian constitution as a Scheduled Tribe. Tripura has got rich history and is a popular tourist destination.

The only lake palace in the whole of eastern India is situated in Rudrasagar lake ,53 kms from Agartala. Sikkim is a religious state with a major population consisting of followers of Buddhism.

## **CONCLUSION**

- Rich Natural Resources makes North East potentially one of the most prosperous regions of the country.
- Rich Culture and heritage coupled with deeply integrated ethnicity and beliefs makes North east one of the most formidable regions culturally not only in the country but in the world.
- North east is the pride of the country and the destiny of India and its greatness is closely associated with the development of the region.
- It is the land of opportunities with the potential for growth and development.
- It is a gateway to the South East Asia.
- In its pursuit for the achievement of Sustainable Development goals India looks forward to the North east region. The statistics mentioned in the paper strongly supports the outlook.
- The SDG Goal no. 5-Gender Equality and Goal no. 7 Affordable and clean energy clearly seems achievable and when you look at north east it seems to be more realistic. The progress of north east of India on these fronts is commendable and exemplary. Especially the states like Meghalaya where the local population has been successfully preserving the biodiversity and nature in its full glory so successfully. This shows the deep commitment and strong belief of the north east people in the heritage and ethnicity.
- The North east is also observed to have made significant progress on SDG, Goal no. 10-Reduced Inequalities. North east is a highly equal culture and is far away from the discrimination which the rest of the country is infamous for.
- Although there is a significant improvement required on the SDG, goalsof; No poverty and quality education. With the literacy rate of the region going up gradually this too seems achievable.
- Harmony, Peace and proximity to nature are the hallmarks of the North east people. The future seems to be very bright.
- The emergence of the high-profile sports personality from the region in the recent times proves the excellent sports facilities and infrastructure present in the region.
- In spite of all the odds against the region in terms of geographical topography and borders with the countries like China and Burma the people of the region have preserved their honesty and integrity.
- The folktales of Nyishi Tribe from Arunachal Pradesh are soon to be included in the environment courses in the upper primary sections at school level.
- Mizoram is the happiest state in the country along as per the 2020 survey which proves the overall high happiness quotient of the region.

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**STUDY OF VARIOUS PROGRAMMING LANGUAGES FOR MACHINE LEARNING**

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**ABSTRACT**

*Machine learning is a field of computer science that gives computer systems the ability to “learn” with data, without being explicitly programmed. The name machine learning was coined in 1959 by Arthur Samuel. Machine learning explores the study and construction of algorithms that can learn from data and make predictions on data. Machine learning is applied in varied range of computational tasks where designing and programming of algorithms with good performance is not feasible. Machine learning is closely related to computational statistics. Within the field of data analytics machine learning is a method used to devise complex models and algorithms for predictions. Commercially this is known as predictive analytics. These analytical models allow researcher, data scientists, engineers and analysts to produce reliable, repeatable decisions and results. Effective machine learning is difficult due to difficulty in finding patterns and non-availability of enough training data. In this paper author discusses about programming languages for machine learning. Researcher study available machine learning languages and compare different features provided by ML languages.*

*Key words: Machine learning, predictive analytics, ML languages, AI.*

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**INTRODUCTION:**

Machine learning is a promising and highly potent field of computer science. It offers great technological advancement in the field of Software Engineering, Artificial Intelligence (AI), Business Analytics and Intelligence, data analytics and Big data. These upcoming technologies has revolutionary impact on the growth and advancement in scientific research and business management. Nowadays machine learning techniques are used in many field of science, engineering, management and research and development. Machine learning is classified in these broad categories based on the nature of learning “signal” or feedback available to a learning system. These are: supervised, unsupervised, semi-supervised, reinforcement and deep learning. Machine learning has wide variety of applications, like detecting credit card fraud, Stock Market analysis, market research, Bio informatics, Automatic speech recognition, Image recognition, Natural Language Processing(NLP), Drug discovery and toxicology, search engines, adaptive websites etc.

**OBJECTIVES:**

The objectives of this study are:

- To list top programming languages for machine learning.
- Study their features and comparative evaluation.
- Recommend most suitable machine learning languages.

**RESEARCH METHODOLOGY:**

To fulfil all the stated objectives of this research, the researcher conducted a comprehensive and exhaustive study about machine learning, its applications and ML languages. Data has been collected from available web resources (websites) related to machine learning, user and development groups. The data is collected about popularity of a language, features provided and usability. The result of this study is presented through tables and graphs. Comparisons are done based on features of languages.

**LITERATURE REVIEW:**

The term “machine learning” was coined in 1959 by Arthur Samuel. Machine learning explores the study and construction of algorithms that can learn from data and make predictions on data. Machine learning is applied in varied range of computational tasks where designing and programming of algorithms with good performance is not feasible. Machine learning is closely related to computational statistics. Within the field of data analytics machine learning is a method used to devise complex models and algorithms for predictions. Commercially, this is known as predictive analytics. These analytical models allow researcher, data scientists, engineers and analysts to produce reliable, repeatable decisions and results. Effective machine learning is difficult due to difficulty in finding patterns and non-availability of enough training data. Kdnuggets(2013) has conducted language polls. A recent poll titled “What programming/statistics languages you used for analytics / data mining / data science work in 2013”. The results suggest heavy use of R and Python for data access. SAS accounts for larger corporate data analysis and MATLAB for engineering, research and student use. Kaggle offer machine learning competitions and polled their user base used by participants in competitions. They posted results in

2011 titled “Kagglers' Favourite Tools”. The results suggested abundant use of R. The result also shows good use of MATLAB and SAS. Ben Hammer, Kaggle Admin suggests that MATLAB/Octave is a good language for matrix operations. Python is fragmented and can be very slow. Ben further suggests that as a general rule, if it is for statisticians, it's been implemented in R.” Anthony Goldbloom, the CEO of Kaggle gave a presentation to the Bay Area R User group in 2011 on the popularity of R in Kaggle competitions titled “Predictive modelling competitions: making data science a sport”. Their study suggested that R and WEKA as two most popular programming language for data science and machine-learning. As per their reports following is the list of popular programming languages on Kaggle: R, WEKA, MATLAB, SAS, SPSS, PYTHON, EXCEL, MATHEMATICA, STATA. IBM's JeanFrancois Puget used the trend search available on indeed.com and reported that Python is the clear leader and is followed by Java, R and C++. Scala is also showing fast growth. As per studies conducted by different agencies, top 8 programming languages for machine-learning and data science are: Python, Java, R, C++, JavaScript, Scala and Julia.

### POPULAR MACHINE LEARNING LANGUAGES:

#### R:

R is useful for statistical analysis and machine-learning. It is the platform to understand data using statistical methods and graphs. R has huge number of machine-learning algorithms and advanced implementation. Anyone can explore, model and prototype with R. R is most suitable for set of predictions, reports or research paper.

#### MATLAB/Octave:

MATLAB is excellent for representing and working with matrices. It is an excellent language to use for linear algebra of a given method. It is popular for beginners.

#### Python:

Python is a popular scientific language and is gaining momentum for machine-learning. It cannot compete with R in Data analysis but matrix handling in NumPy may take on MATLAB. SciPy stack for machine-learning and data analysis can be used for research papers and scikit-learn can be used in production systems.

#### Java-family/C family:

Implementation of a system that uses machine learning is an engineering challenge. When it

Comes to serious production implementations one needs a robust library. There are robust libraries, for example Java has Weka and Mahout. The deeper implementations of core algorithms like regression (LIBLINEAR) and SVM (LIBSVM) are written in C. For quick

Prototyping and experimentation, R's CRAN system is best you can find, install and use a new library really fast. MATLAB has very big repository, useful for prototyping. MATLAB is also good, but these are not good for large scale or maintainable solutions. Java has some open source library.

#### Scala:

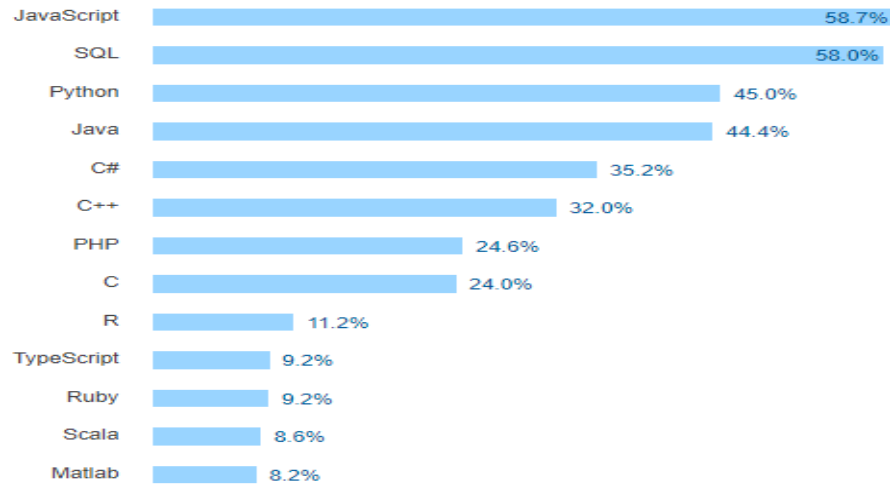
Scala is a general-purpose programming language providing support for functional programming and a strong static type system. Scala is designed to be concise. Many of Scala's design decisions aimed to address criticisms of Java.

### RESULTS AND DISCUSSIONS:

IEEE Spectrum has just published its the 2017 Top Programming Languages and below is the ranking of languages.

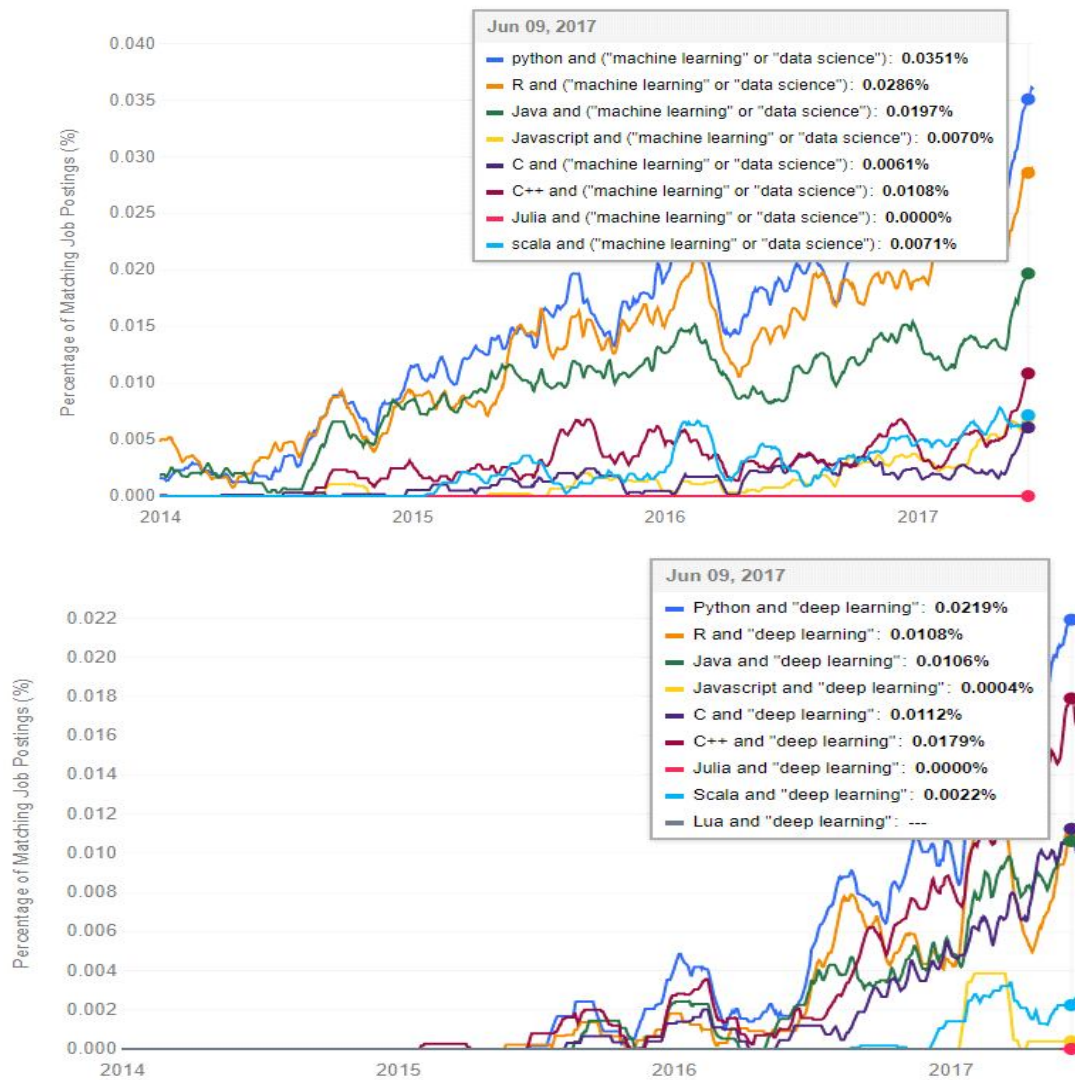


Results of 2017 StackOverFlow survey:



StackOverFlow survey Result indicates SQL, Python and R as a preferred language for Data Scientist.

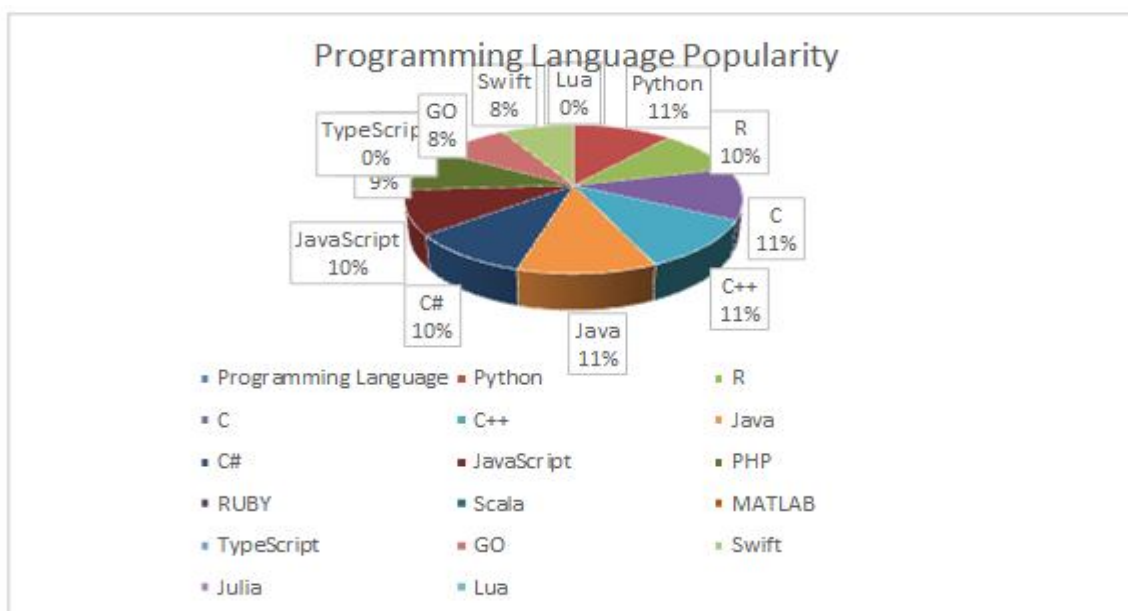
Analysis of data from Indeed.com:



Data from indeed.com suggests that there is an increase in popularity of machine learning language in recent years. Python is ranked one followed by R and Java. Based on overall popularity of machine learning Python is the leading with 57% of data scientists and machine-learning developers using it and 33% prioritizing it for development. Python is often compared to R, but R comes fourth in overall usages (31%) and fifth in prioritization (5%). In fact, R is the lowest prioritization-to-usage ratio among the top-five, with only 17% of

developers who use it prioritizing it. The same ratio for python is at 58%. Python is the most widely used language. It is also the primary choice for majority of its users. C/C++ is distant second to Python, both in usage (44%) and prioritization (19%). Java follows C/C++ very closely, while JavaScript comes fifth in usage. Other languages used in machine learning including Julia, Scala, Ruby fall below the 5% mark of prioritization and below 26% of usages. The research reveals that the most decisive factor when selecting a language for machine learning is the type of project and the application area. Machine learning scientists working on sentiment analysis prioritize Python (44%) and R(11%) and JavaScript (2%) and Java(15%) less than developers working on other areas. In contrast, Java is prioritized more by those working on network security/cyber-attacks and fraud detection, where python is least prioritized. In areas such as natural language processing(NLP) and sentiment analysis, developers opt for Python that offers an easier and faster way to build highly performing algorithms. Artificial Intelligence (AI) in games (29%) and Robot locomotion (27%) are the two areas where C/C++ is most favourite, due to given the level of control, high performance and required efficiency. Here C/C++ that comes with highly sophisticated AI libraries is a natural choice while R, designed for statistical analysis and visualizations, is mostly irrelevant. AI in games (3%) and Robot locomotion (1%) are the two areas where R is prioritized the least, followed by speech recognition. Apart from sentiment analysis, R is also relatively highly prioritized as compared to other application areas. Data shows that developers new to data science and machine learning Prioritize JavaScript more than others (11%) and Java less than others (13%).

Sr. No.	Name of Survey			
	PROGRAMMING LANGUAGE	IEEE SPECTRUM SURVEY 2017	STACKOVERFLOW SURVEY 2017	INDEED.COM SURVEY
1	Python	100	45	.0219
2	R	87.7	11.2	.0108
3	C	99.7	24	.012
4	C++	97.1	32	.017
5	Java	99.5	44.4	.0106
6	C#	87.7	35.2	
7	JavaScript	85.6	58.7	.0004
8	PHP	81.2	24.6	-
9	RUBY	-	9.2	-
10	Scala	-	8.6	.0022
11	MATLAB	-	8.2	-
12	TypeScript	-	9.2	-
13	GO	75.1	-	-
14	Swift	73.7	-	-
15	Julia	-	-	0.
16	Lua	-	-	-



Based on data collected by these three surveys we create a popularity chart and select Top-5 Machine learning language.

Sr. No.	Programming Language
1	Python
2	R
3	C
4	C++
5	Java

### CONCLUSION:

Python and R are the frontrunner as machine learning language. These two languages are closely followed by Java and C/ C++.

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## AN APPROACH TO REDUCE CARBON EMISSION ON DATA CENTERS

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**ABSTRACT**

*In the recent years, IT industry decline towards the cloud services. With the growing demand of users for cloud services, cloud providers deploy large data centers, which consume very large amount of energy and contribute to high carbon dioxide emission day to day. Cloud computing is itself a greener option to reduce carbon emission on cloud data centers. It cannot be ignores the fact that data centers using cloud vendors, which is big source of carbon emission. Here the discussion of this is based on how to reduce the carbon emission in the cloud infrastructure. The architectural design of data centers requires more innovative and keep together with disciplined operational management.*

**INTRODUCTION:**

Green cloud computing is a practice of using resource efficiently that is environmental ecological and low power consumption on very low cost of operation.

Green cloud data centers includes the architectural design and development, installation, operations, and disposal of the data server machines and their related marginal such as printers, monitors, storage devices etc. In business, carbon emission occurs through end user tools such as laptops, personal computers, mobile gadgets, large data servers, communication equipment and infrastructures. Carbon release from the digital equipment and infrastructures, which creates risk in business field. To reduce carbon emission we need to perform some specific amounts and metrics has to be integrated as a part in the IT- business relationship with respect to Green cloud computing [1].

Thousands of digital devices and internet users share their own photos and documents through some applications, which are helpful for the serious actions of personal or business work. For this kind of activities, it is very important to have a platform, which provides faster access to elastic and low cost IT equipment. In order to provide this platform, the inventive service model called cloud computing has been introduced to the world. In the word of Mr. Taroub Ahmed Mustafa, cloud computing accommodates an easy way to access an extensive set of application services, databases, storage and servers over the internet. Cloud services provides the facility as resistance and Fats access for reliable cost by only paying for the service use by users. Data and services are enduring in common, scalable resource pools, which are dynamically expandable, generally virtualized in a cloud computing architecture and those data and services are available for any verified device through the internet [3].

Google Cloud Platform, Amazon Web Services, IBM Cloud, Oracle Cloud, Microsoft Azure, Adobe, VMware, Virtual Box, Rackspace and Red Hat are some of distinguished cloud service providers and those providers charge their customers for consuming the services according to the usage.

In the different way illumination of cloud computing is, explaining the development models of cloud computing which can be described as a computing methodology that involves computational resource, instead of arranging the personal machine to administrate the request and the demanded applications of the user.

The followings are the different models of cloud:

- **Public cloud:** Public cloud is available for any organization by allowing users to organize and outline services in the cloud environment.
- **Private cloud:** In this cloud, the availability of services is limited and maintained, controlled and deployed for a private organization.
- **Community cloud:** It is allows the users of number of specific organizations with shared services of community.
- **Hybrid cloud:** It is a grouping of any other types of clouds (means combination of private, public and community), which have the capability over the interfaces to move and allow data or applications between more than one cloud.

Three types of Cloud computing Services as shown in the figure 1[2] below.

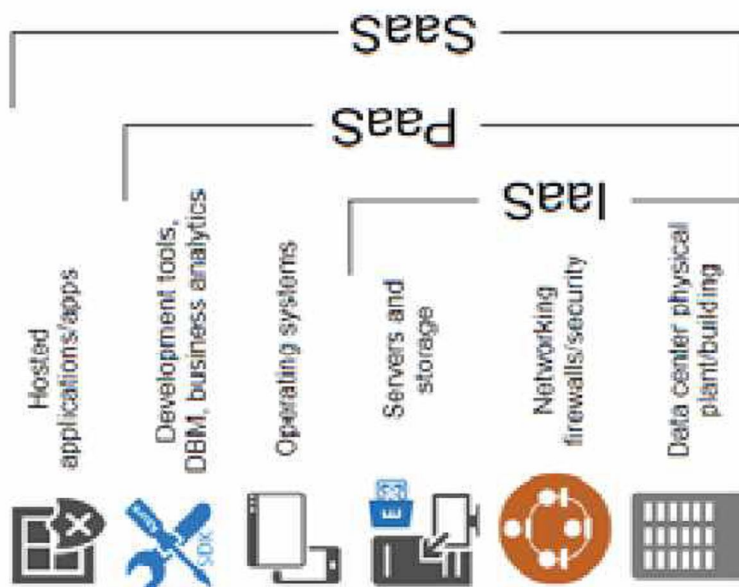


Figure 1

- **Infrastructure as a service (IaaS):** In the Infrastructure as a service merchant proposals access for resources like networking, storage and servers for the users by providing their own applications and platform within the infrastructure. Therefore, it is a replacement for procurement hardware, users can pay for IaaS on demand and there is no any single option even for a single point of failure. This saves money and time. This service provided by the vendors' like Microsoft Azure and Amazon Web Services (AWS).
- **Platform as a Service (PaaS):** PaaS is a third- party provider distributes software tools and hardware for the customers over the Internet. This third-party provider has accommodated the software and hardware on his own organization, so that user can continue with the complete development and deployment environment in the cloud. PaaS includes analytical tools business intelligence (BI) services, infrastructure networking, development tools, DBMS, RDBMS, and middleware. PaaS provided by Windows Azure, Google App Engine and AWS(Amazon Web Services) , Elastic Beanstalk.
- **Software as a Service (SaaS):** SaaS is a service type of cloud computing where hosts requests, and makes them available to customers over the Internet by a vendor service provider. Since different user of the organization does not need to install and run applications on their own cloud data centers or in their digital devices. It reduce the spending of purchasing hardware, software licensing, maintenance cost, cost for installation and support. Dropbox, Cisco WebEx and Google Apps are some real world application as examples for SaaS.

#### APPLICATIONS OF GREEN CLOUD COMPUTING:

In order to increase the resource efficiency and performance there are seven application areas introduced for green IT, which can be applied in Green cloud computing as follows:

- Proper management of power
- Energy efficient resources
- Design of data centers
- Virtualization of servers

##### a) Proper management of Power:

In green cloud computing progress the efficient power consumption, cost effective solution and environment friendly.

In 2015, Rakshith and Sreenivas directed a research on power efficiency of green cloud computing and they have found that servers run at low utilization in data centers can be the key reason of more power consumption in data centers. Since there is a situation where even though usage of resources is fewer, the energy consumption is more than the power spent on usage. As per their research, energy consumption can be identified as the main reason in content distribution system and these demand an accretion of networked

computing resources from one or numerous service providers on data centers across the world. In the system of cloud computing on modern data center, It is mentioned above expenditure is acting as a disapproving design parameter of cloud. The high carbon emission and energy cost are depending on the power and energy consumed by the computer equipment and the connected cooling system [4],

**b) Energy efficient resources:**

The demand increase of cloud data centers high performance cloud computing requires on cloud data centers. As a result more energy consumption by the cloud data centers, carbon emission and the heat generated by processor chips increase gradually. To escape this problem, Green Cloud Computing has introduced. The aim of green cloud computing is to develop high end computing systems like data centers and clouds to meet not only user's quality of service requirements, but also minimize the utilization of electric power. Apart from that, it has defined to manage energy effectively and efficiently [6], Most of the time cloud data centers remain underutilized. There are many virtual machines running on top of these big under-utilized virtual machines. Therefore, it required huge power consumption. So it need to domain noteworthy volume of energy they are migrating virtual machines to other machines and hiding such under-utilized machines. As the data centers raise highly obsessed with energy efficiency, green cloud computing provides a rare opportunity to reduce data center power bills [5].

**c) Design of Data Centers**

Green cloud data centers are the heart of cloud computing and running thousands of server side workloads, data storage and large scale of data and scientific processing. Today, large data centers consume thousand megawatts of electricity.

The simulation of infrastructure of power consumption on the data center a slight scale distribution network in the electric grid. The infrastructure include feeders, transformers, and switchboards that feed power to the computing and cooling infrastructure. Developing a green data center and cooling infrastructure, data center controlling, physical layout and power efficient infrastructure are the major areas that should be considered

**d) Virtualization of Servers**

There are five main types of virtualization as

- Server virtualization
- Application virtualization,
- Desktop virtualization,
- Hardware virtualization and
- Network virtualization.

Green cloud computing server virtualization plays a major role by masking of server cloud resources, including the identity and number of individual processors and physical servers, and cloud server users and operating systems users. To separate one single physical server into many remote virtual servers and their administrative environments, can use different software application. The approaches for the main server virtualization are virtual machine model, paravirtual machine model, virtualization at the operating system layer. In 2012 Sasikumar and Yuvapriya has directed about execution the servers in a cloud data center. In order to reduce power consumption within the cloud data center VM scheduling algorithm can be used. For thermal aware scheduling and power-aware are the main two types of green scheduling systems for super computers. In order to reduce the power consumption on data center, jobs can be scheduled and the pattern is called as the thermal-aware scheduling. It is very helpful to reduce the power consumption needed to control the data center cooling systems. Power-aware scheduling arranged to decrease the server's total power by scheduling the jobs to nodes. Operating the servers is the most valuable function within a Cloud data center. VM schedules algorithm that minimizes power consumption within the data center [5].

**CONCLUSION**

Cloud data centers have become an essential part of current computing infrastructures and demand of consumer as pay per use. There are much company and other organization switch to them on cloud computing based services, cloud solutions, and compliance assurances; It is not wonder that the number of data centers is expected to rise day by day. So there are many new data centers upcoming, It is worth to think about the unpleasant fact of data center power consumption. Means we required some innovative idea and developments

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in supportable energy solutions, the actuality of the matter that small and large data centers both consume a lot of energy. To understand situation of carbon emissions associated with data centers, the companies or any organization can set a baseline by drilling down to the server level and then develop a virtualization alternate system through which less carbon emission and efficient power consumption.

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## STRATEGIC MARKETING

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**ABSTRACT-**

*The paper investigates very important topic Strategic Marketing in current scenario.*

*The Topic focuses to define the structure of marketing mix in the context of the longer term competition position of a firm and its constituent business. To achieve long run competitive positions for the organization is the goal of strategic marketing. The role of strategic marketing is to utilize environmental opportunities up to great extent and convert into profitable business activities. Strategic marketing is one of the forces to get sustainable competitive advantage in corporate. By Strategic marketing, Marketing Managers reduces impact of threats emerging in the business environment by implementing a long term strategy.*

*The Research study includes Defining Strategic marketing, Identifying strategic marketing position, Identifying strategic marketing capability, Strategic marketing decisions and managing strategic marketing efforts.*

*Keywords: Strategic marketing, Customer, Competition.*

**1. INTRODUCTION**

Strategy implies the determination of basic long term objectives and goals of organization and formulation of a unified course of action for allocation and utilization of resources necessary to achieve these objectives.

According to Kotler “ Marketing is a social and managerial process by which individuals and groups obtain what they need and want through creating ,offering and exchanging products of value with others.

Strategic marketing focuses on an approach in developing & addressing strategic choices and to managing firms in context of changing external forces. It is helpful to gain synergy among various markets through coordinated utilization of resources.

The features of Strategic marketing areas under:-

1. External market orientation      2. Long-term perspective      3. Empirical research
4. Marketing information system base    5. Entrepreneurial thrust
6. Interdisciplinary

The process of strategic marketing areas under:-

1. Identifying strategic marketing option
2. Identifying strategic marketing capability
3. Strategic marketing decisions
4. Marketing strategic marketing efforts

Strategic marketing process is based on the mission, vision, and objectives.

**2. REVIEW OF LITERATURE-**

Review of literature is used to understand the contribution of different scholars in area of Economic Growth. Research study focuses on finding out the contribution of Indian and Foreign authors with regard to Strategic Marketing. Review of literature analyses the research gaps and helpful to understand the scope of the topic.

**Ramaswamy, S.V. & Namakumari, S. (2004)** The authors have written in their book “Marketing Management – Planning ,Implementation and Control” that Marketing strategy is the complete and unbeatable plan ,designed specifically for attaining the marketing objectives of the firm. He has also written about Strategic Planning that it is the Management task concerned with the growth and future of the business enterprise.

**Aghazadeh, H. (2015)** The researcher has written in his paper “Strategic marketing management: achieving superior business performance through intelligent marketing strategy” that in competitive business environment sustainable competitive advantage is required for organizations to cope with changes and to succeed. It can be created and sustained through strategic marketing management. Marketing strategies play has two main roles to sustain competitive advantage: (1) Encourage customers to return (2) Create distinctive competencies through

making core competencies VRIO .To sustain competitive advantage and create intelligent marketing strategy , Organisation should be based on innovative knowledge. The researcher has contributed a new perspective to develop marketing strategy in his paper.

**Malinen, M (2013)**-The researcher has written in his paper “Manufacturing companies in the B2B high-tech sector are facing challenges in adapting to changes in the international and increasingly competitive market environment of today” that Strategic marketing management plays a great role in creating and delivering value to customers. B2B companies that follow strategic marketing practices are winning the race for market share. The researcher has the object to create a marketing strategy for organization X, in order to secure its leading position and to increase its market share in Sector X in the Finnish market.

### 3. RESEARCH METHODOLOGY

Research Methodology is the step by step, theoretical analysis of the methods applied to a field of research study. It comprises the theoretical analysis of the body of methods and principles associated with a branch of knowledge.

**Objective of Study-** Investigates Strategic Marketing in Organizations

**Data Collection** -The researcher has used secondary data which were collected by following methods:-- Websites, Journals Newspaper, books, Research Project.

### 4. ASSESSMENT/FINDINGS

#### Implementation of Strategic Marketing

The researcher has found following process of strategic marketing in organization.

The steps of strategic marketing areas under:-

- a. Identifying strategic marketing option
- b. Identifying strategic marketing capability
- c. Strategic marketing decisions
- d. Marketing strategic marketing efforts

#### a. Identifying Strategic Marketing Position

To Identify the strategic marketing position is first step in strategic marketing process of any organization which has following points:-

- (i) Environmental Scanning,
- (ii) Industry Analysis,
- (iii) Competition Analysis , and
- (iv) Customer Analysis.

#### Environmental Scanning

All the forces and factors are included in marketing environment which can influence the ability of organization to improve and maintain transactions with the target consumers effectively. Environmental forces and trends generate opportunities and present threats for businessman. We can classify Marketing environment as follows:

1. **Socio-cultural Forces.** The beliefs, values and norms of people are grown up in society. Views People about themselves, society, corporates & surroundings and the effect of that force in which they are grown up. We can understand by example that people believes in work and in getting married. Demand of any product depends upon the attitudes, values and customs of society.
2. **Economic Forces.** Rate of economic growth, economic stability, income levels and industrial structure of country are the main factors of economic environment. Marketers need human being with purchasing power, which depends upon real income, price level, savings, and credit availability.
3. **Demographic Forces.** Populations, age distribution, sex ratio, household patterns, educational level of people are the main factors of demographic force. People make up markets and marketers understand demographic environment firstly.

4. **Natural Forces-** Rising pollution, shortage of raw materials, high energy costs etc. are the important factors of natural and physical environment. The societal marketing concept has great scope now a day. Alternative technologies are also very important.
5. **Technological Forces.** Technology impacts on people tremendously. Advanced technology makes old technology obsolete .A good marketer predicts effect of technology on people' life and their need and make planning accordingly. Income level of rural people generated opportunities for businessmen in rural areas. Customer service also improves with increased competition.
6. **Political and legal Forces-** Laws, rules & regulations, and government agencies are main forces of political and legal environment. Laws are meant to protect consumers, social interest and companies. Import/Export restrictions and tariffs, customs and excise duties, export incentives have a direct bearing on marketers.

## 2. INDUSTRY ANALYSIS

Group of organizations makes an industry that offers products that are close substitute for each other. Industry analysis starts with analyzing the basic conditions underlying demand and supply. These conditions effect on industry structure which create impact on industry conduct, and finally industry conduct influences industry performance.

## 3. COMPETITION ANALYSIS

A marketer needs a strategic marketing attitude to analyze competition. Industry assessment alone does not provide a full idea of opportunities. Analysis of competition in the industry and the market is necessary for determining the relative marketing position of the organization.

## 4. CUSTOMER ANALYSIS

Identification and understanding the demand and expectations of current and potential consumers is the crucial point to strategic marketing. It is required to analyze and complete the latent needs of consumers in the long run. In current scenario, customer is the king and business depends on consumer rather than product. The use of internet reduces the time and money involved in interacting with the consumers, permitting adoption of customer relationship marketing.

### b. Identifying Strategic Marketing Capabilities

After analyzing opportunities and threats of environment, the next step is to assess the strengths and weakness of organization with respect to all resources. The steps of identification of strategic marketing capabilities of the organization are as under:-

1. Internal Analysis ,
2. Competitive Advantage, and
3. Market Selection

### c. Strategic Marketing Decisions

Strategic marketing decisions concerning the following are made after identifying strategic marketing capabilities:

1. **Product:** To satisfy consumers, strategic product decisions provide suitable product offering. The most important strategic product decisions are regarding the basic product, branding, packaging and positioning.
2. **Pricing:** Pricing also play a major role in gaining competitive advantage. Competitively low price offer and positioning call for low pricing strategies. There are different pricing strategies which are used in corporate namely cost plus pricing target pricing, competition pricing, value pricing.
3. **Promotion:** Promotion is an important part in corporate world which performs the task of informing, persuading, countering competition and building a favorable usage. Personal selling, advertising, sales promotion and direct marketing are tools of promotion.
4. **Distribution:** Distribution is a key function of competitive strength in business environment. Customer's expectation is product availability, convenience, time and distance in aspects of distribution. A strong distribution channel provides great advantage to this function. Choosing an appropriate distribution channel create a great impact on other strategic decisions in marketing.

### d. Managing Strategic Marketing Efforts

There are two stages of Management of strategic marketing efforts:-

1. **Organization and Implementation:** The strategic marketing efforts have to be organized and coordinated throughout the enterprise to be effective; marketing should not be left to the marketing department. A successful strategic marketing depends on implementation of the strategic marketing decisions. Some important things should be considered namely nature of activities, their location and timing. Before Implementation some points should be considered namely strategy structure fit, necessary skills and resources, proper deployment of people and resources focus on critical elements, and right values.
2. **Strategic Marketing Control:** Control is based on feedback about the implementation of strategic marketing decisions. The gap between deliberated strategy and noticed strategy shows gaps in implementation. Control is helpful to ensure that the deployed strategy is responsive to the changing environment. The strategic marketing control needs the analysis of marketing activities in diverse areas so as to match resources with opportunities.

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## A STUDY ON IMPACT OF ACCESSIBILITY FACTORS ON CUSTOMER SATISFACTION OF MOBILE BANKING USERS DURING THE COVID – 19 PANDEMIC IN MUMBAI

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### ABSTRACT

*The COVID-19 pandemic has affected not only people but also each business sector including banks. The bank customers prefer to evade branch visits due to the fear of getting infected. The advancement in ICT has helped banks to provide customers with internet or mobile banking options to execute their banking requirements. The aim of the research paper is to study the impact of accessibility factors on customer satisfaction of mobile banking users during COVID-19 pandemic in Mumbai. A review of various factors affecting mobile banking user's satisfaction was conducted. Based on the review of literature, certain factors were selected. Primary data were collected from 134 respondents through structured questionnaire and its validity and reliability was checked. The factor analysis was done on the variables to form a common component. The relationship of the factors was then analysed on the customer satisfaction using the Spearman's correlation. An academic research study helps in suggesting appropriate factors for customer satisfaction in using mobile banking applications.*

*Keywords – Mobile Banking, Customer Satisfaction and COVID-19 Pandemic*

### INTRODUCTION

The Janta Curfew announced by PM Narendra Modi on March 22, 2020 followed by the complete lock down from March 23, 2020 has affected not only the human beings but also has made a huge impact on the entire economy. India is not the only victim country due to COVID 19 pandemic. All countries in the entire world have been affected irrespective of whether it is developed or a developing country. It has affected each and every sector of the economy, but those which were based on digital technology have experienced a boom in their performance. The work from home culture that is adopted by various companies that are technology driven has determined that this is the best way of working that has helped them cut a huge amount of their fixed cost.

Even the banking sector has been affected by this pandemic. The way people used to make their banking transactions earlier have now changed during this pandemic. There has been an increase in number of people adopting digital mode of fulfilling their banking requirements. They have started using more of internet banking, mobile wallets, mobile banking, UPI mode, etc. to furnish their banking requirement simply to avoid branch visits to secure themselves from coming in contact of any corona-affected person. The COVID pandemic has given a boost to the digital mode of banking and even most of the banks have tried taking advantage of this. Banks have also tried to creating awareness by promoting their Internet and mobile banking modes so that more of the customers start adopting it. The bank employees also found it difficult to manage the crowd due to cut in the strength of employees working. So the bank employees were also seen encouraging customers to use mobile banking application instead of visiting the branches.

The growth in the volume of mobile banking transactions for the selected renowned banks from public, private and foreign categories can be verified in Table 1. The data represent the volume of transactions completed using the Mobile Banking Applications of respective banks from March 2020, which is the month when the lockdown began in India up to December 2020. Each bank in each month shows a rise in the volume of transactions completed compared to the previous month.

Banks Name	Volume of Transactions completed using Mobile Banking									
	Mar-20	Apr-20	May-20	Jun-20	Jul-20	Aug-20	Sep-20	Oct-20	Nov-20	Dec-20
AXIS BANK LTD	13765 8301	11635 3675	26946 3941	26795 4268	29640 5538	37393 4646	29663 4072	37148 5531	42048 3683	37959 6749
Bandhan Bank	36900 6	24090 3	37443 4	46352 5	50888 2	52488 8	58860 3	62126 7	59058 2	63498 5
BANK OF BARODA	10951 408	77229 23	94859 63	10491 456	10555 623	97232 148	10173 6086	10876 8207	12077 6095	12830 8332
Bank of India	69785 214	53527 881	72321 358	79726 612	88400 061	10143 2906	10910 9993	13835 353	13903 235	14902 554

Bank of Maharashtra	22818 190	17874 791	22483 703	25416 832	28735 031	13447 868	36116 256	38997 729	40777 237	45169 819
Canara Bank	40741 375	33718 490	55797 121	61905 707	87243 800	80113 189	87442 080	96336 156	99474 388	11874 2849
CITI BANK	18981 61	14601 33	15559 48	14698 03	16239 73	16818 57	16583 57	18016 41	17115 05	17749 18
DBS BANK LIMITED	66110 15	41923 88	52484 59	56795 91	62657 47	71551 19	78772 06	88838 05	89438 33	92368 83
HDFC BANK LTD.	12051 9634	86337 417	10775 1623	12073 8696	13444 9785	15021 4245	16183 4586	18808 6944	18542 2399	20760 1205
HSBC	13790 11	92790 4	11813 84	12229 19	13626 09	15625 67	15904 99	18123 56	18800 46	20378 56
ICICI BANK LTD	10096 4675	72125 221	90421 717	10064 8178	11170 8701	12372 7284	13145 6145	14248 2233	15350 4960	16527 4962
IDBI LTD.	18822 087	14920 083	18046 619	20184 132	22968 895	25724 727	27504 563	31897 945	31587 592	34728 752
IDFC Bank Ltd.	68420 27	44835 41	58207 06	71887 09	86738 88	90227 13	10398 809	12214 517	12507 820	14029 687
India Post Payments Bank Limited	21397 11	20911 92	28890 95	28114 19	32389 39	14280 3	38508 32	27544 345	38522 01	53910 58
Indian Bank	24043 763	44299 609	38525 252	43158 333	48682 116	54028 613	60677 031	65462 528	70763 959	71825 949
INDUSIND BANK LTD	11636 237	86563 70	94140 22	10657 747	12491 244	13639 404	14667 017	18216 971	18388 261	20519 724
KOTAK MAHINDRA BANK LTD	46373 021	31933 117	39033 490	44461 520	48983 937	54892 642	62308 230	70200 370	74327 784	81332 508
Paytm Payments Bank Limited	81872 981	65256 605	10175 3349	77726 260	90763 319	10143 6321	11329 5723	11543 5438	13958 2425	13110 5952
STATE BANK OF INDIA	32243 2111	28796 3313	35294 2737	37254 9921	42460 7423	41582 1473	47068 0603	56115 5680	57604 3168	56956 8726
YES BANK LIMITED	44553 67	42597 01	68751 38	86602 48	90455 73	11290 968	14703 096	19858 752	23124 295	26002 623

(Source: RBI - Data Release)

**Table 1: Volume of Transactions completed using Mobile Banking between March, 2020 to December, 2020**

Customers can access their accounts, check their balances, make check book requests, make the transfer payments, etc. through mobile banking applications. They are deprived only of cash deposits or withdrawals for which there is no alternative yet than branch visit. However now it is observed that each store, vendor or service provider has started using Mobile wallets encouraging cashless transactions to overcome the shortage of cash with customers. Mobile Banking applications built by banks help customers have a 24\*7 access to their account and undergo any digital transaction anytime. Such acceptance of digital mode of banking transactions not only helps reduce the physical handling of cash but also curtails the use paper, which is equally risky during such a pandemic.

The pandemic and the lock down has made the people helpless and has left no option for them to adopt digital mode in various fields may it be insurance sector, banking sector, education, etc.

## REVIEW OF LITERATURE

Wang (2003), in the research has determined that along with perceived ease of use and perceived usefulness were the factors that encouraged users to adopt internet banking were. The results of the study demonstrated that perceived credibility has also emerged as an important determinant for the acceptance of internet banking.

Kumbhar, Vijay (2011), in the research determined that cost effectiveness, ease in use, efficiency of banks to handle problems, security concern and the promptness in responding were the factors that had a major impact on customer satisfaction in using the electronic banking services.

G. Parimalarani (2020), in the study analysed the level of satisfaction among customers in using mobile banking and ATM services. The study also revealed a positive relationship between digital banking services and customer satisfaction during lockdown due to the COVID – 19 pandemic.

Jindal M., Sharma (2020), in the study tried assessing the impact of online banking to control the spread of COVID – 19. It was determined that online banking played a significant role during the pandemic period to protect the people. It was revealed in the study that people felt safe from the virus while making the payment of their daily utilities through mobile banking wallets.

### OBJECTIVE OF THE STUDY

The current study identifies the relationship that exists between the usage of mobile banking application and accessibility factors. Various parameters fulfil the features of accessibility that is used to determine their effect on mobile banking usage by the customers during the COVID-19 pandemic.

### HYPOTHESIS

H0 – There is no significant relationship between accessibility factors on customer satisfaction of mobile banking user during COVID – 19 pandemic.

### RESEARCH METHODOLOGY

To achieve the objective of the research, the researcher has used primary and secondary data. The primary data were collected through the convenience sampling method using a structured questionnaire distributed through Google forms. The secondary data were gathered through sources that included books, RBI Reports and press releases, journals, internet, etc. The data were collected from 144 respondents who were customers of certain banks. Of these 134 forms were duly filled and were considered suitable for the research analysis. The reliability test was conducted on the Data collected were then analyzed using cross tabulation, percentages and statistical tool like Spearman's Correlation Test using SPSS software.

### DATA ANALYSIS AND INTERPRETATION

The primary data for the study are collected from 144 responses and out of which 134 responses were found valid and usable for the research.

Mobile Banking Users			Educational Status				Total
			Post Graduate / Masters	Graduate	Upto HSC	Upto SSC or below	
No	Male	Count	27	19	1	-	47
		% within Educational Status	48.20%	46.30%	50.00%	-	47.50%
	Female	Count	29	22	1	-	52
		% within Educational Status	51.80%	53.70%	50.00%	-	52.50%
Yes	Male	Count	9	8	1	2	20
		% within Educational Status	50.00%	66.70%	50.00%	66.70%	57.10%
	Female	Count	9	4	1	1	15
		% within Educational Status	50.00%	33.30%	50.00%	33.30%	42.90%
Total	Male	Count	36	27	2	2	67
		% within Educational Status	48.60%	50.90%	50.00%	66.70%	50.00%
	Female	Count	38	26	2	1	67
		% within Educational Status	51.40%	49.10%	50.00%	33.30%	50.00%

(Source: Primary Data)

**Table 2: Mobile Banking User's categorized based on Gender and Educational Status**

A total of 13 questions were asked through the questionnaire on a likert scale of ie Highly Preferred, Preferred and Least Preferred. A reliability test is conducted to test the reliability of the thirteen factors. The Cronbach's Alpha value calculated is 0.879, which is greater than 0.7, which determines the reliability of the thirteen variables in the component.

#### Reliability Statistics

Cronbach's Alpha	No of Items
.879	13

(Source: Primary Data)

**Table 3: Reliability Test Results**

On conducting Factor Analysis, 3 components were formed. The response to the variable Eliminates risk of carrying cash was excluded as it alone formed the third component. The first eight variables mainly focussed on the accessibility of the mobile banking application whereas the last four variables were concerned about the security aspect. Since the study determined the relationship between the accessibility factors on customer satisfaction, only the accessibility factor component was considered for further research.

A reliability test was again conducted on the eight factors where the Cronbach's Alpha value was 0.92, which is greater than 0.7.

#### Correlations

			Satisfaction Level	Accessibility Factors
Spearman's rho	Satisfaction Level	Correlation Coefficient	1.000	.228*
		Sig. (2-tailed)	.	.024
		N	98	98
	Accessibility Factors	Correlation Coefficient	.228*	1.000
		Sig. (2-tailed)	.024	.
		N	98	98

\*. Correlation is significant at the 0.05 level (2-tailed)

**Table 4: Spearman's Correlation Test Results**

The correlation between component Accessibility Factor and customer satisfaction was analysed using Spearman's Correlation as both variables were non-parametric. The significance value is 0.024, which is less than 0.05 indicates the existence of a significant relationship between Accessibility Factors and Customer Satisfaction. The null hypothesis was thus rejected.

#### MAJOR FINDING

1. The Gender of the respondents had no major impact on the mobile banking usage. Almost equal proportion of respondents used mobile applications for their banking requirements.
2. Almost 80% of the respondents were satisfied with the mobile banking applications for their banking requirements.
3. The factors save branch visit time, fearless banking during a pandemic and no contact with COVID affected people were factors that showed a significant relationship with the level of satisfaction.
4. Access at any time and from any place also showed a relationship to the satisfaction of using mobile banking.
5. Mobile banking showed a greater significance in fulfilling the banking requirement during the COVID-19 pandemic.

#### CONCLUSION

Mobile banking was found to be a most suitable replacement during the pandemic period. Respondents preferred to use mobile banking applications than visiting bank branches or ATM. The Accessibility Factors have a significant relationship on the customer satisfaction of mobile banking users. Respondents found

themselves secured during the pandemic period as they could avoid visiting the branches or ATM's thus managing to prevent coming in contact with unknown COVID affected person and keeping themselves safe. The study determines that Mobile Banking Application has been a suitable alternative for fulfilling the financial transactions during the COVID-19 pandemic and lockdown.

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**TOXICOLOGICAL BIOASSAY OF BRINJAL SHOOT AND FRUIT BORER *L. ORBONALIS* AGAINST CHLORANTRANILIPROLE UNDER LABORATORY CONDITION**

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**ABSTRACT**

The commercial losses of Brinjal fruits were highest due to Brinjal shoot and fruit borer hence the present study on susceptibility of sixth generation of Brinjal Shoot and fruit borer *L. orbonalis* against Chlorantraniliprole under laboratory condition is best approach for reducing losses was carried out at Insect Toxicology Laboratory, Dr. PDKV, Akola. The objectives of this study was rearing and assessment of chlorantraniliprole susceptibility to *L. orbonalis* a major pest of brinjal. Chemical insecticides have been the main control tools used against *L. orbonalis*, but declining efficacy has been attributed to the development of insecticide resistance. In the present study the susceptibility level was study to know the resistant against Chlorantraniliprole in future for the eco-friendly management of Brinjal shoot and fruit borer for reduce down the post harvest losses and residue problem

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**INTRODUCTION**

Brinjal or eggplant (*Solanum melongena* L.) is an important solanaceous vegetable. It grows in sub-tropics and tropics. Brinjal is one of the most wide spread, popular and major vegetable crops grown throughout in India. It is a major staple vegetable grown commercially through the year in India. (Anonymous, 2010). India is a major brinjal producing country after China (Anonymous, 2012). In India the highest area covered in West Bengal, Odisha and Andhra Pradesh and Maharashtra State (Anonymous, 2014).

Brinjal shoot and fruit borer (*Leucinodes orbonalis*. G) BSFB comes under family Pyralidae and order Lepidoptera. It is major pest which consumes maximum insecticides for management. BSFB is a oligophagous i.e. feeding on one family plants, but almost it is monophagous i.e. feeding principally on eggplant. The damage of BSFB starts from seedling stage and continues till fruit harvest (Butani and Jotwani, 1984).

The introduction of new insecticide followed by the development of resistance to that molecule is an established fact due to indiscriminate use of that particular molecule. This is because of selection pressure on that particular pest population. Bangladesh is top in use of insecticides on Brinjal against said pest. (Haider, *et.al.*, 2012).

According to Botre, 2012 farmers are applying diamide insecticides frequently for the management of BSFB. The exclusive, use of the new diamide insecticides on *L. orbonalis* has rapidly selected for resistance in this species, and this research focuses on the diamide susceptible strains. So that it could be bench mark in future to monitor the resistant problem due to use of diamide.

High levels of resistance against chlorantraniliprole in *Spodoptera litura* (Lai et al. 2011) have been reported. The risk of development of resistance in *L. orbonalis* to chlorantraniliprole is notably high because growers are making indiscriminate use of this molecule in brinjal cropping system.

However, it is showed from the review of literature that there is no report on the susceptibility of chlorantraniliprole against BSFB. Hence the present study was plan to see the susceptibility.

**METHODOLOGY**

The primary purposes of present investigation were to assess the level of resistance to chlorantraniliprole in *Leucinodes orbonalis*. The study was carried out under laboratory condition. For fulfilling the given objectives. The rearing of *Leucinodes orbonalis* was done on hygienic potato as natural diet.

**REARING AND ADVANCEMENT OF RESISTANT POPULATION.**

*Leucinodes orbonalis* Guenee (Lepidoptera: Pyralidae) larvae were collected from unsprayed fields of brinjal. Field collected populations were reared on disinfected potato using standard rearing techniques in laboratory (Fartode, 2012). The pupae were collected from the bottom of tub. Adult were reared in mating or oviposition chambers. Eggs laid by the adult in moth chamber on cloth. The neonates were collected by small brush and release on fresh potato. This F1 was reared to develop the homogenous population up to 4<sup>th</sup> generation. On 5<sup>th</sup> generation the insecticides doses were applied. Continuous colonies of *Leucinodes orbonalis* were reared in the laboratory under controlled conditions of temperature 25°C ± 2°C, 75 ± 5 per cent relative humidity and photoperiod of 13 hrs light : 11 hrs dark. The insecticide solution required for log dose assays were prepared

using the formulated grade insecticides. The distilled water used for dilution of formulation grade insecticide. The adult diet was prepared as per given by Salunke, 2011.

#### BIOASSAY FOR SELECTION OF CHLORANTRANILIPROLE SUSCEPTIBLE STRAIN

Brinjal fruit slice/disc dip method of bioassay was adopted in the present study (Botre, 2012). Brinjal slices were first cut into 1cm thickness by stainless steel knife. Slices were cut and then dipped in a test solution for few seconds. The slices were placed over blotting paper for removing excess solution of insecticide at room temperature. Ten first instar larvae were released on each disc in an individual petriplate where in blotting paper was placed at the bottom. Three replications were used for each concentration. The bioassay was conducted at room temperature. Similarly ten larvae were released on brinjal disc dipped in distilled water only, which was treated as control. The homogeneous susceptible population of *L. orbonalis* was put under insecticide bioassay.

#### ANALYSIS OF DATA

The corrected mortality percentage data obtained were subjected to probit analysis using computer software.

$$Y = \bar{Y} + b(X - \bar{X})$$

Where,  $\bar{Y}$  – Probit equation

$\bar{X}$  – Log concentrations

$b$  – Slope of regression line

#### RESULT AND DISCUSSION:

Present investigations were carried out to study the susceptibility to chlorantraniliprole Data generated during the period of investigation and discussion pertaining to it is presented here.

#### LOG DOSE PROBIT ASSAYS

The log dose probit assay were carried out to determine the median lethal concentration of chlorantraniliprole for *L. orbonalis* under laboratory condition. For determining  $LC_{50}$  value the homogeneous  $F_5$  population was subjected to log dose probit (LDP) assay by disc dip method of chlorantraniliprole against larvae of *L. orbonalis*. The methods of calculation of Finney, (1971) and Abbot, (1925) were used.

**Table 1. Toxicity of chlorantraniliprole to homogeneous population of *L. orbonalis* ( $F_6$  generation)**

Selected generation	LC50 (ppm) (95%FL)	LC90 (ppm) (95%FL)	Slope (+SE)	Chi. Square	Regression equation	Resistance ratio
G <sub>5</sub>	0.003 (0.001-0.006)	0.040 (0.016- 0.855)	1.173 +0.349	1.525	Y=7.927+1.17X	-

Log dose probit assays are based on toxicological valuations by subjecting insect populations to serial dilutions of insecticides to determine a dose-mortality regression response. Five concentrations of the toxicant were tested on each population. The dose response was determined as  $LD_{10}$ ,  $LD_{50}$ ,  $LD_{90}$ ,  $LD_{99}$  etc from the regression equation. The  $LD_{50}$  represents the dose that kills 50 percent of the test population.

Log dose probit assays were carried out to determine the median lethal concentration of chlorantraniliprole against *L. orbonalis* strains, collected from untreated population.

The data presented in the Table 1 indicated that  $LC_{50}$  value of 0.003 ppm were observed for chlorantraniliprole, against *L. orbonalis* larvae of  $F_5$  generation.

However, the  $LC_{95}$  value of chlorantraniliprole were 0.04 ppm with fiducial limits of 0.001 to 0.006, chi-square value was 1.53 with slope of 1.173(+0.35).

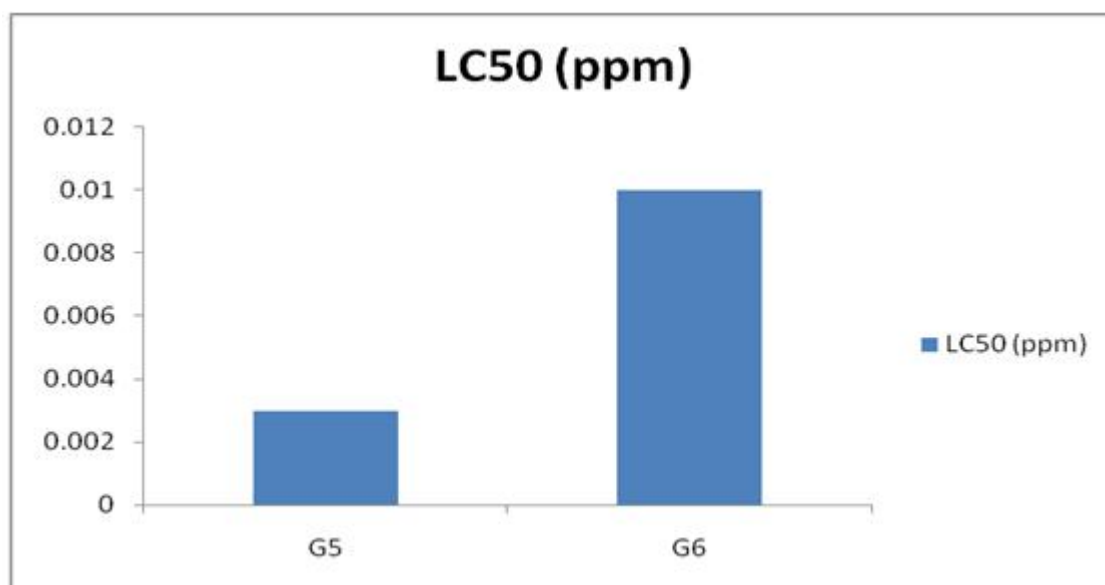
**Table 2. Toxicity of chlorantraniliprole to homogeneous population of *L. orbonalis* ( $F_6$  generation)**

Selected generation	LC50 (ppm) (95%FL)	LC90 (ppm) (95%FL)	Slope (+SE)	Chi. Square	Regression equation	Resistance ratio
G <sub>6</sub>	0.010 (0.007-0.021)	0.039 (0.019-2.091)	2.168 +0.800	0.461	Y=9.34+2.16X	3.33

Thus, the above results table 2 indicated that *L. orbonalis* under selection pressure of chlorantraniliprole showed higher degree of resistance. Indiscriminate use of insecticides, multiple generations of *L. orbonalis* per annum and year round availability of host crop have contributed to the development of resistance *L. orbonalis* against

almost all groups of insecticides. The same findings are reported by Shah et al. (2012) which confirmed the present findings. As per fig 1 it could be revealed that the LC<sub>50</sub> values go on increasing under insecticide pressure.

**Fig 1 LC<sub>50</sub> of Susceptible G5 and G6 generation.**



Same trend was reported by Chowdary et al. (2011) in the laboratory experiment on baseline susceptibility of *Spodoptera litura* to rynaxypyr. Susceptibility index worked out for F<sub>1</sub> and F<sub>6</sub> generations revealed that, susceptibility of *Spodoptera litura* increased after six generations in insecticide free exposure and susceptibility index for LC<sub>50</sub> was 1.5.

The occurrence of insecticide resistance is a major risk to the sustainability of integrated pest management (IPM) for *L. orbonalis*. Effective resistance management strategies could slow the development of resistance only if implemented in a timely manner. The information on existing levels of resistance to chlorantraniliprole is an important factor in developing successful resistance management strategies for *L. orbonalis*. All of the populations of *L. orbonalis* tested and reared in this study, which are in accordance with the results of Lai et al. (2011), Sial et al. (2011) and Emmanouil et al. (2014).

In conclusion, we have identified that in *L. orbonalis* population have capacity to develop the resistant against chlorantraniliprole in coming future. This work provides the basis for understanding of insecticides resistance in BSFB. In future farmer could reduce down the pesticide pressure. The mankind would get the pesticide free vegetables like brinjal.

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**IMPACT OF VIRTUAL CURRENCY ON INDIAN ECONOMY**

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**ABSTRACT**

*Virtual currency is a type of unregulated digital currency that is only available in electronic form. It is stored and transacted only through designated software, mobile or computer applications, or through dedicated digital wallets, and the transactions occur over the internet through secure, dedicated networks. Virtual currency is considered to be a subset of the digital currency group, which also includes cryptocurrencies, which exist within the block chain network. Examples include Bitcoin, Lite coin, and XRP. Virtual currency can be either centralized or decentralized. Back in 2018, the Reserve Bank of India (RBI) banned banks from dealing with cryptocurrencies. Naturally, interest in Bitcoin and the like plummeted. But in 2020, the country's Supreme Court knocked down the law. This resulted in renewed interest in crypto.*

*Keywords: Bitcoins, History, Types*

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**1. INTRODUCTION**

Virtual currencies are typically issued by private issuers and used among specific virtual communities. The security of the software and networks that virtual currencies stand on is a critical concern.

The traditional regulated currencies are backed by sovereign debts (fiat currency) or hard assets such as gold. In contrast, virtual currencies are not backed with no intrinsic value. The value of a virtual currency is mainly driven by the sentiment of traders. As a result of its unregulated nature, a virtual currency can experience extensive price fluctuations.

Prime Minister Narendra Modi's government has a comfortable majority in parliament. By most accounts, it can do pretty much whatever it wants. And banning any involvement in cryptocurrency is high on the list.

The bill, titled The Cryptocurrency and Regulation of Official Digital Currency Bill, 2021 would ostensibly turn 8 million Indian citizens into criminals. As it currently stands, possession, mining, trading and transferring any crypto assets would be illegal. And while a prison sentence isn't the penalty this time, anyone engaging in crypto-related activities would face steep fines.

If enacted, the new law would be one of the strictest anti-cryptocurrency policies in the world. By contrast, in China mining and trading crypto have been banned. But simple possession has not.

**2. OBJECTIVE OF THE STUDY**

A. The impact of virtual Currency on Indian Economy

B. The impact of virtual Currency on Indian Investors

**3. HISTORY OF CRYPTO CURRENCY**

The first block chain-based cryptocurrency was Bitcoin, which still remains the most popular and most valuable. Today, there are thousands of alternate cryptocurrencies with various functions and specifications. Some of these are clones or forks of Bitcoin, while others are new currencies that were built from scratch.

Bitcoin was launched in 2009 by an individual or group known by the pseudonym "Satoshi Nakamoto." As of March 2021, there were over 18.6 million bitcoins in circulation with a total market cap of around \$927 billion.<sup>2</sup>

Some of the competing cryptocurrencies spawned by Bitcoin's success, known as "altcoins," include Litecoin, Peercoin, and Namecoin, as well as Ethereum, Cardano, and EOS. Today, the aggregate value of all the cryptocurrencies in existence is around \$1.5 trillion—Bitcoin currently represents more than 60% of the total value.

**4. ADVANTAGES AND DISADVANTAGES OF CRYPTOCURRENCY****Advantages of Cryptocurrency:**

- 1. Protection from inflation** – Inflation has caused many currencies to get their value declined with time. Almost every cryptocurrency, at the time of its launch, is released with a fixed amount. The source code specifies the amount of any coin; like, there are only 21 million Bitcoins released in the world. So, as the demand increases, its value will increase which will keep up with the market and, in the long run, prevent inflation.

2. **Self-governed and managed** – Governance and maintenance of any currency is a major factor for its development. The cryptocurrency transactions are stored by developers/miners on their hardware, and they get the transaction fee as a reward for doing so. Since the miners are getting paid for it, they keep transaction records accurate and up-to-date, keeping the integrity of the cryptocurrency and the records decentralized.
3. **Secure and private** – Privacy and security have always been a major concern for cryptocurrencies. The blockchain ledger is based on different mathematical puzzles, which are hard to decode. This makes a cryptocurrency more secure than ordinary electronic transactions. Cryptocurrencies, for better security and privacy, use pseudonyms that are unconnected to any user, account or stored data that could be linked to a profile.
4. **Currency exchanges can be done easily** – Cryptocurrency can be bought using many currencies like the US dollar, European euro, British pound, Indian rupee or Japanese yen. With the help of different cryptocurrency wallets and exchanges, one currency can be converted into the other by trading in cryptocurrency, across different wallets, and with minimal transaction fees.
5. **Decentralized** – A major pro of cryptocurrency is that they are mainly decentralized. A lot of cryptocurrencies are controlled by the developers using it and the people who have a significant amount of the coin, or by an organization to develop it before it is released into the market. The decentralization helps keep the currency monopoly free and in check so that no one organization can determine the flow and the value of the coin, which, in turn, will keep it stable and secure, unlike fiat currencies which are controlled by the government.
6. **Cost-effective mode of transaction** – One of the major uses of cryptocurrencies is to send money across borders. With the help of cryptocurrency, the transaction fees paid by a user is reduced to a negligible or zero amount. It does so by eliminating the need for third parties, like VISA or PayPal, to verify a transaction. This removes the need to pay any extra transaction fees.
7. **A fast way to transfer funds** – Cryptocurrencies have always kept itself as an optimal solution for transactions. Transactions, whether international or domestic in cryptocurrencies, are lightning-fast. This is because the verification requires very little time to process as there are very few barriers to cross.

#### **Disadvantages of Cryptocurrency:**

1. **Can be used for illegal transactions** – Since the privacy and security of cryptocurrency transactions are high, it's hard for the government to track down any user by their wallet address or keep tabs on their data. Bitcoin has been used as a mode of exchanging money in a lot of illegal deals in the past, such as buying drugs on the dark web. Cryptocurrencies are also used by some to convert their illicitly obtained money through a clean intermediary, to hide its source.
2. **Data losses can cause financial losses** – The developers wanted to create virtually untraceable source code, strong hacking defenses, and impenetrable authentication protocols. This would make it safer to put money in cryptocurrencies than physical cash or bank vaults. But if any user loses the private key to their wallet, there's no getting it back. The wallet will remain locked away along with the number of coins inside it. This will result in the financial loss of the user.
3. **Decentralized but still operated by some organization** – The cryptocurrencies are known for its feature of being decentralized. But, the flow and amount of some currencies in the market are still controlled by their creators and some organizations. These holders can manipulate the coin for large swings in its price. Even hugely traded coins are susceptible to these manipulations like Bitcoin, whose value doubled several times in 2017.

**Some coins not available in other fiat currencies** – Some cryptocurrencies can only be traded in one or a few fiat currencies. This forces the user to convert these currencies into one of the major currencies, like Bitcoin or Ethereum first and then through other exchanges, to their desired currency. This applies to only a few cryptocurrencies. By doing this, the extra transaction fees are added in the process, costing unnecessary money.

4. **Adverse Effects of mining on the environment** – Mining cryptocurrencies require a lot of computational power and electricity input, making it highly energy-intensive. The biggest culprit in this is Bitcoin. Mining Bitcoin requires advanced computers and a lot of energy. It cannot be done on ordinary computers. Major Bitcoin miners are in countries like China that use coal to produce electricity. This has increased China's carbon footprint tremendously.

5. **Susceptible to hacks** – Although cryptocurrencies are very secure, exchanges are not that secure. Most exchanges store the wallet data of users to operate their user ID properly. This data can be stolen by hackers, giving them access to a lot of accounts.

After getting access, these hackers can easily transfer funds from those accounts. Some exchanges, like Bitfinex or Mt Gox, have been hacked in the past years and Bitcoin has been stolen in thousands and millions of US dollars. Most exchanges are highly secure nowadays, but there is always a potential for another hack.

6. **No refund or cancellation policy** – If there is a dispute between concerning parties, or if someone mistakenly sends funds to a wrong wallet address, the coin cannot be retrieved by the sender. This can be used by many people to cheat others out of their money. Since there are no refunds, one can easily be created for a transaction whose product or services they never received.

## 7. TYPES OF CRYPTOCURRENCY

original and first form of cryptocurrency was called Bitcoins, after which other forms like; Ethereum, Litecoin, Dark coin, dash, and the likes were brought on stream.

BITCOIN hit the market first in 2009 and has been flooding the business world ever since. The drastic rise in bitcoin was so much that its value went from \$1000 to over \$19,000 in 2017 alone. This is the first and most popular of all forms of cryptocurrency.

ETHEREAL is another form of cryptocurrency that kick-started in 2015. Its uniqueness is that it allows for smart contracts and DApps usage without any glitch or scam. Not to omit that it regulates interaction from third parties, and it does not give downtime.

LITECOIN, another form of cryptocurrency, started in 2011 and rose to be the silver to bitcoin's gold. This is because it is very similar to bitcoin, only that it has a faster transaction rate.

## 8. TOP 7 CRYPTO EXCHANGES IN INDIA TO BUY BITCOINS, ALTCOINS

Bitcoin is gathering popularity in India because of its legal status. However, there are still many websites providing bitcoins and altcoins trading services, but only a few websites are listed are the most trustworthy category in terms of their ease of use and popularity. Cryptocurrency exchanges work in a similar way to the stock market where an investor can buy, sell or hold the cryptocurrencies

1. **WAZIRX** is India's most successful crypto exchange, which started trading on 8 March and aims to become India's most trustworthy cryptocurrency exchange. The platform provides its customers with peer-to-peer transaction capabilities and manages a technology that is capable of processing millions of transactions and can scale up the framework to satisfy rising demands. WazirX provides a smooth and efficient trading experience across all platforms-web, Android & iOS mobile, Windows, and Mac applications. The exchange has an innovative KYC system in which identity verification takes place within a few hours of registration.
2. **BUYUCOIN** BuyUcoin is another pioneer in the crypto-currency market in India. It provides a convenient and trustworthy forum for several cryptocurrencies such as Bitcoin, Ethereum, Ethereum Classic, List, NEM, Civic, Litecoin, Bitcoin Cash, and many others to purchase, exchange. The functionality of periodic transactions has now been introduced to Buy You Coin so that users can participate in crypto as a SIP. To stop the risk of a blanket ban on cryptos in India, BuyUcoin has created and proposed a "sandbox" system to monitor cryptocurrencies in India. To have unhackable protection, the platform stores 95% of your funds offline.
3. **COINDCX** It was launched on April 7, 2018, with the goal of offering a user-friendly experience where users can access a wide variety of financial products and services enabled by industry-leading security and insurance protection processes. Other than bank transfers, different payment strategies such as UPI and IMPS are also approved
4. **BITBNS** Bitbns is a peer-peer (P2P) sharing site to offer and take bitcoins. The P2P model allows users to purchase and sell cryptocurrency without the intervention of a third party. Bitbns lets you automate your orders with advanced tools & features. With 98+ cryptocurrencies currently listed, Bitbns allows users to purchase and sell cryptocurrencies at the best available rates and provides ease of trading like no other cryptocurrency exchange.
5. **ZEBPAY** Zebpay is the business of cryptocurrencies since the year 2014, reaching great heights of over 3 million customers and \$2 billion in fiat transactions. It offers to buy Bitcoin and a range of Altcoins

instantly with guaranteed execution and minimal slippage. Robust security mechanisms include controls to block all outgoing transactions with the Disable Outgoing Transactions feature.

6. **COINSWITCH KUBER** is a stable and user-friendly crypto trading site for users in India. Its users can access the combined liquidity of India's leading cryptocurrency exchanges to get the best offer and trade instantaneously after finishing KYC/AML procedures. CoinSwitch Kuber software is the best cryptocurrency exchange for Indians, offering a smooth user experience with a clear user interface. The platform is ideal for beginners as well as daily doers.
7. **GIOTTUS** Giottus Cold wallets are protected by 100% cyber-theft insurance. They have also collaborated with the global custodial service pioneer, Bitgo, to provide insurance coverage for your savings. It provides 24 x 7 free instant deposit & withdrawal of Rupees processed within 10 seconds. You only need to register and get a chance to win up to 10,000 Matic Tokens for free.

## 9. RESEARCH METHODOLOGY

Secondary Method: Data for research obtain from different websites , E- Publication and E-journal

For determining % changes in one year Following Formula has been use

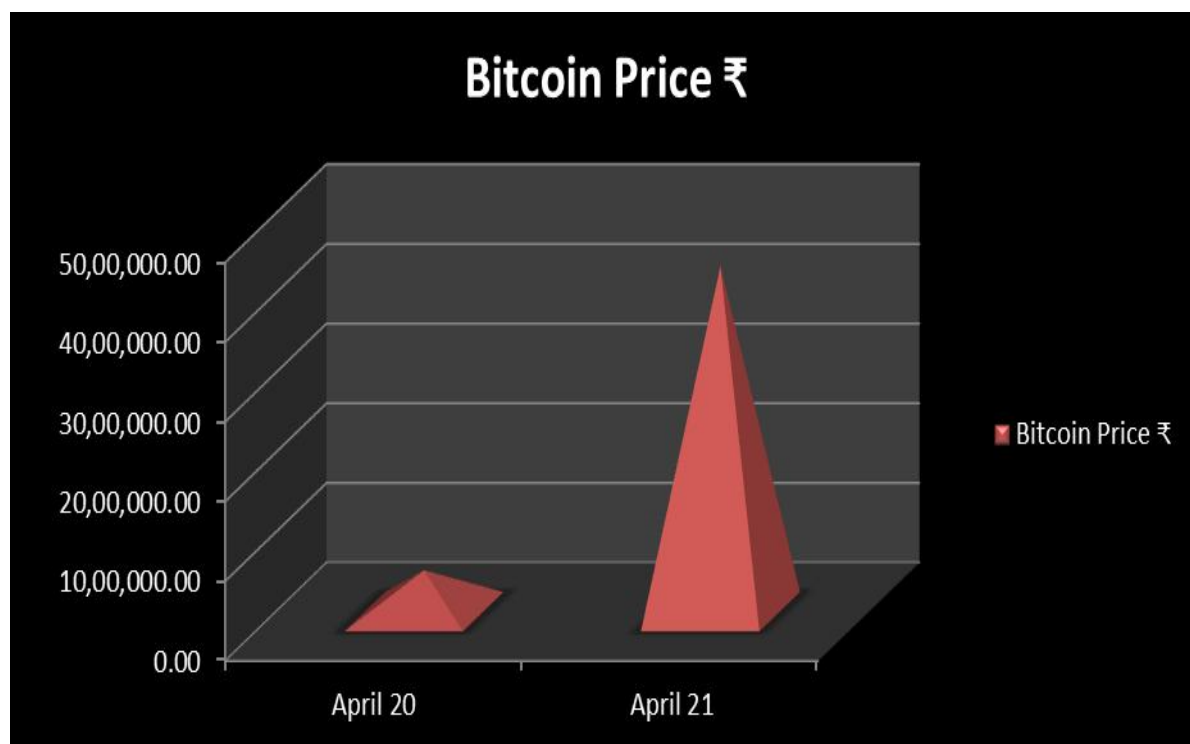
Closing value at the April 2021 – opening value at the April 2020

Opening Value of April 2020

## 10. DATA ANALYSIS

### A. Price of one BITCOIN change in one year

Period	1 Bitcoin Price Indian ₹
<b>Apr-21</b>	43,36,104.50
<b>Apr-20</b>	5,21,860.13



Price of one Bitcoin on April 2020 Was ₹ 5,21,860.13 which was increase in the year April 21 which ₹ 43,36,104.50 which means the investor who invested in 1 Bitcoin his wealth was increase by ₹ 38,14,244.37 it shows the wealth was increase by 731 % in one year span of time

### B. Price of one ETHEREAL change in one year

Period	1 ETHEREAL Price in Indian ₹
<b>Apr-20</b>	11,719.92
<b>Apr-21</b>	1,72,475.95



Price of one ETHEREAL on April 2020 Was ₹ 11,719.92 which was increase in the year April 21 which ₹ 1,72,475.95 which means the investor who invested in 1 ETHEREAL his wealth was increase by ₹ 1,60,756 .30 it shows the wealth was increase by 1372 % in period of 1 year

## 11. FINDING

### A. Impact on Indian Economy :-

- Most important event on the Bitcoin network calendar this year, is set to impact the industry in the long run as the world anticipates this major development.
- It must be noted that the Reserve Bank of India (RBI) had banned banks from processing transactions relating to cryptocurrency in 2018. However, the Supreme Court, vide judgment dated March 4, 2020, lifted the ban. Since then, cryptocurrency has been operating in the country.
- Bitcoin trading volume April 2020 ₹ 25,91,23,32,33,184 to April 2021 ₹ 53,74,13,02,57,920 in India
- Covid-19 has had a devastating impact on our economy leaving the majority of once-thriving industries in shambles. Crypto, on the contrary, has been generating jobs across a variety of functions in India and abroad.

### B. Impact on Indian Investors:-

- Most people know about cryptocurrency by now, and the idea of it is appreciated by ordinary people, investors, companies, and banks. Many are taking advantage of cryptocurrency
- Another point of Bitcoin trading is that it does not require any third party to interfere. There is no need for a bank or any commanding body to trade Bitcoins. Additionally, the transaction cost is much cheaper as there is no third person involved.
- The transaction done with software like crypto bots is as easy as just using the internet to surf, which is done over social media. It takes no time and no additional work to make money. A Bitcoin transaction is secure, and if we see the latent harm or the benefits of the crypto revolution could have

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**A STUDY ON DIGITAL BANKING**

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**ABSTRACT**

*Online banking system can be considered as the one of the great tool supporting many customers as well as banks and financial institutions to make many bank activities through online. Every day banks need to perform many activities related to users which needs huge infrastructure with more staff members etc. But the online banking system allows the banks to perform these activities in a simpler way without involving the employees for example consider online banking, mobile banking and ATM banking. But banking system needs to be more secure and reliable because each and every task performed is related to customer's money. Especially authentication and validation of user access is the major task in the banking systems.*

**Keywords**

- *It provides the ability for users to access financial data through desktops, mobile services and ATM services.*
  - *Smarter*
  - *Faster*
  - *Fully interactive*
  - *Extensively offered and spread services through any online channel*
  - *Affiliates, SEO, SEM, Social media, Tracking and data crunching etc.*
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**INTRODUCTION**

Digital Transformation is far beyond just moving from traditional banking to a digital world. It is a vital change in how banks and other financial institutions learn about, interact with and satisfy customers. An efficacious Digital Transformation begins with an understanding of digital customer behavior, preferences, choices, likes, dislikes, stated as well as unstated needs, aspirations etc.. And this transformation leads to the major changes in the organizations, from product-centric to customer view.

**OBJECTIVE OF STUDY**

- Develop consumer-centered business models, including a digital experience that differentiates them from the competition and that addresses new purchasing behaviors.
- Optimize distribution. The user's experience needs to be increasingly multi-channel, especially when it comes to online, mobile, and social media.
- Simplify processes and transactions. Rather than simply moving off-line processes on-line, they need to be re-thought from a 100% digital perspective.
- Obtain relevant information. Gaining the capability and the tools required to obtain relevant information from Big Data will be a clear competitive advantage.
- Innovate proactively. This may be one of the most profound changes to company culture in this industry: a transition to proactive innovation that seeks and favors change.
- Invest in security for verifying user identity and for making data and transactions secure.

**RESEARCH METHODOLOGY****➤ PRIMARY data**

- **Interview (digital banking is benefited or not??)**

**BY AN ACCOUNTANT**

Started using digital banking, to pay the electricity bill had to stand in for at least 1 hour then his turn would come and many a times they had server failures and what not, or if had college then his mother would go but still she have to wait, used to get angry because many people would ask him that they have office would he allow to go him/her ahead? Why is he/she was standing here for fun and is he a free person? So as grown up he/she told clearly at his home, either go digital or waste or time, he/she is not going to waste my time in

queue, so everyone agreed and they started everything from utility to phone bills, grocery to pay either by Net-Banking or Debit Cards. They charge a minor rupee or two on the transaction but it is affordable then to spend on the petrol and then waste time in the queue. Now he/she will come to bank why we need cash we all have major expenses on utility bills, phone, grocery, apparels, etc., if we pay it online then the need for cash gets eliminated, why panic was created on the day of Demonetization because we don't want to change and pay for our own benefits. He/she sees many people who will send their old parents or grandparents to stand in queue, we call ourselves educated and civilized, and does a civilized person do such things?

#### **BODY OF THE RESEARCH PAPER**

➤ **Secondary data** Digital Banking could be concluded to include all sorts of online/internet transactions made for different purposes. These may include booking movie tickets online, making an online purchase, using e-commerce websites to do transactions online while buying any product, also using of the services related to online solution by a bank internet banking services to make payments via transfers like NEFT transfers etc. So in a nut shell internet banking is use like transfers from one account to another. While Digital Banking is the use of extensively offered and spread services through any online channel. Even the usage of credit cards in the App Store of iOS is called Digital Banking. Technology has made World a better place, but we should change our attitude and be adaptive to the World. It is not easy in today's time to carry so much cash but we can keep a single card inside pocket and even if it is stolen or lost it can be blocked just with a single click or even a miss call to a prescribed bank toll free number, after some verification card is blocked in seconds. Whenever we do recharge it is always a odd figure ₹99, ₹149, ₹153, ₹179, etc, do retailer give us back the rupee, we didn't even ask or many feel ashamed to ask, just assume the total figure he/she would be getting at the end of month or year, it's all unaccounted money, those who are against the online system fear that there business will be closed down soon, many frauds takes place in ticketing in railways and airways, but now people have slowly started to know about the games of mediators, why they are failing because no one loves to get looted unnecessarily, we have started booking tickets for travels, movies, etc. It has slowed down the pressure and much more is needed to do because only a few do online transactions and many have to follow the same. Soon the need of bank branches will get eliminated, it is up to us to change now or get forcefully changed by the system, the later you will not love. SO ACT NOW! In India, initially a beginning was made in internet banking only in some big cities which was just in rudimentary stage. After getting initial success, the internet banking facility is gradually being expanded in all cities and towns to make the system popular. The banking industry in India is also facing unprecedented competition from non-traditional banking institutions which are now a day's offering banking and financial services over the Internet. The deregulation of the banking industry along with emergence of new technologies is enabling the new competitors in the banking sector to enter the financial services market quite efficiently and quickly. Banks have benefitted in several ways by adopting newer technologies. E-banking has resulted in reducing costs drastically and has helped generate revenue through various channels. As per last available information, the cost of a bank transaction on Branch Banking is estimated to be in a range of Rs.70 to Rs.75 while it is around Rs.15 to Rs.16 on ATM, Rs.2 or less on Online Banking and Rs.1 or less on Mobile Banking. The number of customer base has also increased because of the convenience in 'Anywhere Banking'. Digitization has reduced human error. It is possible to access and analyze the data anytime enabling a strong reporting system. the digital world is presenting some of the greatest challenges ever to traditional banks. Some will seize the opportunity to transform and thrive, while others will struggle to evolve and be left to engage with an ever diminishing number of non-digital customers. Since most of us are busy in our day to day lives, we don't even get quality time to spend with our dear and close ones. In such a scenario, standing in long queues for simply requesting financial transaction, turns out nothing less than a headache. Thus, to stay away from such irritations, the concept of online banking was conceived. This has reduced the time to process banking transactions and has helped to save customers time. Thus, have a look at our write-up on how the internet banking has influenced our society Through internet banking, fund transfer for both national and international

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has become faster and convenient. Nowadays, you can transfer your money within short time efficiently. You can carry out stock trading and other investments and also manage several accounts easily. All these factors have created online banking ideal for all those who make number of financial transactions every day.

**CONCLUSION:**

Digital banking is all about doing every single banking activity from your palm top without having to exert a single step, sifting through a single document or meeting those boring faces, in short time.

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**SOCIAL INNOVATION ECOSYSTEM-THE OUTLOOK FOR FUTURE OF INDIA**

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**ABSTRACT**

*This study aims to contribute towards the role of Social Innovation Ecosystem (SIE) in promoting, co-creating, and sustaining society with emphasis on cross-sectoral collaboration. The research focuses on new combinations or hybrids of pre-existing elements, rather than being wholly new in themselves. Some of the most effective methods for cultivating social innovation starts from the presumption that people can do self-assessment of issues in their lives. Blended financial structures, legal framework, organizations, governance, networks, markets, institutions, community groups and cross-sector collaborations are the actors for the social innovation ecosystem. These are the main elements for promoting changes in development patterns, and building solutions that can address the complexity of contemporary public problems. This article reflects on common features and differences between social innovation and other forms of innovation, and the resulting requirements for a Social Innovation Ecosystem (SIE). To address establishment of SIE it necessitates- a mode of governance that integrates actors from civil, social, economic and academic fields that can act as intermediaries that accelerate social innovation activities. Systemic thinking approach that could be helpful to align the function and responsibilities towards social innovation. It presents an analysis of the history, the idea and the process, paving the way for social innovation to play an increasingly significant role in society. Co-development of a collaborative platform, the research observes actors, their interactions and practices, to understand the favourable support of the network towards public and democratic experimentation that promotes a sustainable development sphere in the social ecosystem.*

**KEYWORDS** *Social Innovation technopoles, blended finance, co-creating, Integration of Pre-existing resources, Internal collaboration, Value Chain, Incubation, catalyst of change, changemakers, Sustainable business, Sustainable development*

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**INTRODUCTION**

The Social Innovation Ecosystem (SIE) is a dynamic new model between people within the community that improves relationships, capabilities, and use of resources through talk, trust, collaboration, experiment, and interconnected growth.

Social innovations Ecosystem is new social practices that aim to meet social needs in a better way with pre-existing existing solutions, resulting from various aspects and a variety of actors like research institutions, companies and independent organizations, working conditions, education, community development or health. Blended finance projects can focus on core social and environmental issues in national and international value chains. It creates mutually beneficial arrangements that reduces the risk to achieve more sustainable value chain transformations. Thus help to attain the goal of extending and strengthening society. SIE includes the social processes of innovation, like open source methods and techniques and also the innovations which have a social purpose—like activism, virtual volunteering, microcredit, or distance learning.

Generally the focus of humans with respect to creation lies on ‘new ideas that work’. This differentiates innovation from improvement, leading to a radical change and not an incremental change and thus overlooks the diligence of implementation and diffusion that makes promising ideas useful.

Social innovation refers to new ideas that act as a catalyst in meeting social goals with wide boundaries ranging from partnerships to new ways of using mobile devices, new lifestyles to new products and services.

The innovation should be a minimum of “new” to the beneficiaries it targets, but it does not need to be the new planet.

The government, non- profit sector, profit sector or spaces between these as ecosystem can effectively play a significant role for social innovation.

An ecosystems approach provides a framework for both understanding all the interactions and resources relating to actors involved in social innovation work at a given time, and to identify what changes come about so as to create a field that is ‘more than the sum of its parts’.

The Social Innovation Ecosystem includes sophisticated program integration and leadership development, while key representatives from the community work together to problem solve for the future.

### **REVIEW OF LITERATURE**

Social enterprises are agents trying to bring changes in the lower beneficiaries with a key change in the dual bottom line to create social and economic value by delivering livelihood opportunities and putting them into practice which involves cutting across organisational, sectoral or disciplinary boundaries.

Historically, the most far-reaching movements of change, such as feminism or environmentalism, involved millions of people and had dozens of intellectual and organisational leaders, many of whom had the humility to realise that they were often as much following, and channelling changes in public consciousness as they were directing them.

Environmentalism, for instance, grew from many various sources including: movements for shielding forests and landscapes; scientifically inspired movements to guard biodiversity; more politicised movements to counter the pollution of massive companies or gain redress for his or her victims; environmentalism has spawned an enormous range of social innovations from urban recycling to community owned wind farms, alternative business culture of organic food, household composting, local government. Such movements have also emphasised empowerment – enabling people to solve their own problems.

Innovation Process of ideation, design, delivery, and review, also the mixing of personal capital, with public and philanthropic support can be processed with following mentioned methods or examples- The open university, health care distance learning and traffic calming, Community-Centered Planning, Charter Schools, Emissions Trading, Microfinance, Supported Employment, Online volunteering, Responsible Research and Innovation, Open source innovation, Vocal for Local, Eco-friendly business ideas PHOOL company in Kanpur, Uttar Pradesh- Incense sticks made of floral waste, Combating problem of floral wastes, Rotting flowers affect the water quality and destroy the fragile ecosystem, Complex adaptive systems, Mahindra Research Valley and many other ways.

Mahindra Research Valley is a centre of creativity and innovation where design and R&D facilities are integrated. It proactively pursues activities in areas like environment-friendly advanced propulsion systems, embedded systems, infotonics, artificial intelligence, mechatronics and advanced telematics.

The Gujarat government has started a completely unique emissions trading programme aimed to cut particulate air pollution and facilitate robust economic growth. Under the programme, the government sets a cap on emissions and allows industries to buy and sell permits to remain below the cap. Being the first market-based approach to regulating pollution emissions in India, it is expected to slash air pollution at lower costs for both the government and industry, and provide best practices for replicating trading schemes to other emissions.

Wipro converting its offices in Pune to quarantine facilities, was a bold step to fight the pandemic. A Frontier Market, sells solar lamps to rural Rajasthan through its networked women called 'Sahelis', are now deploying field staff to deliver essential goods to each household just like an Amazon delivery service.

The Amazon Mentor Connect programme, the aim is to make a network to assist startups unlock their potential by providing them with the proper mentoring which will help them generate profits in business, avoid loopholes, learn from experienced leaders, open doors to new opportunities and help them unlock infinite possibilities for a Digital India. Also, certain private universities willingly take up projects with large foundations to create a social connection.

This kind of ecosystem is possible in India due to the investments made by the various investors, accelerators and incubators. Apart from financial help, they also provide services like technical support to assist these start-ups grow with initiatives from the govt also.

Systems change itself has become an increasingly integral approach within the social innovation field as practitioners and enablers have moved on from supporting individual innovations to recognising that to have impact at scale within complex systems requires simultaneous support to multiple and inter-connected innovations.

India has a large startup ecosystem that is key to disruptive innovation and accelerating India's progress towards an Atmanirbhar Bharat.

### OBJECTIVE OF STUDY

- The innovation should be a minimum of new to the beneficiaries it targets, but it does not need to be the new planet.
- To examine how social innovation happens in NGOs, the general public sector, movements, networks and markets.
- The growing importance of social innovation and the way to improve societal capacities and probabilities of latest ideas to resolve their problems.
- To study systematic initiatives to tap pre-existing resources in every society and show the sensible ways to accelerate towards sustainable society.

### RESEARCH PROBLEM OF STUDY

- To give an insight that people are competent interpreters and solvers of problems in their own lives and can create a sustainable society.
- To highlight the importance of interconnectedness between personal development and social development with new patterns and possibilities for innovation with pre-existing resources.
- To create awareness that the government is the biggest source for replication.

### RESEARCH METHODOLOGY

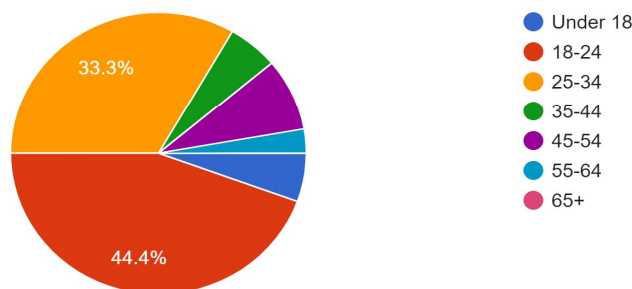
**Primary Data:** To get the data from people, Google Forms was used as a survey method. The survey is designed with structured questionnaires and the results include data from India with a sample size of 36 responses.

**Secondary Data:** The research is purely based on Secondary Data. The data is collected from articles, journals, web sources, E-Newspaper, Magazine.

### DATA ANALYSIS:

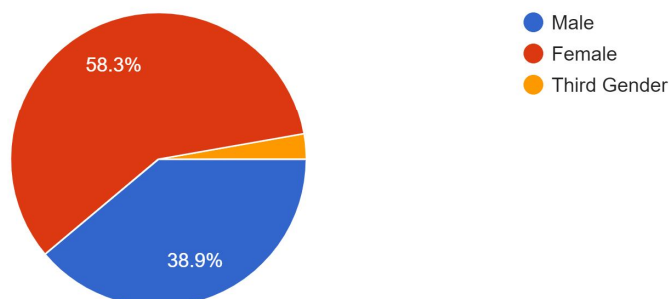
What is your Age Group?

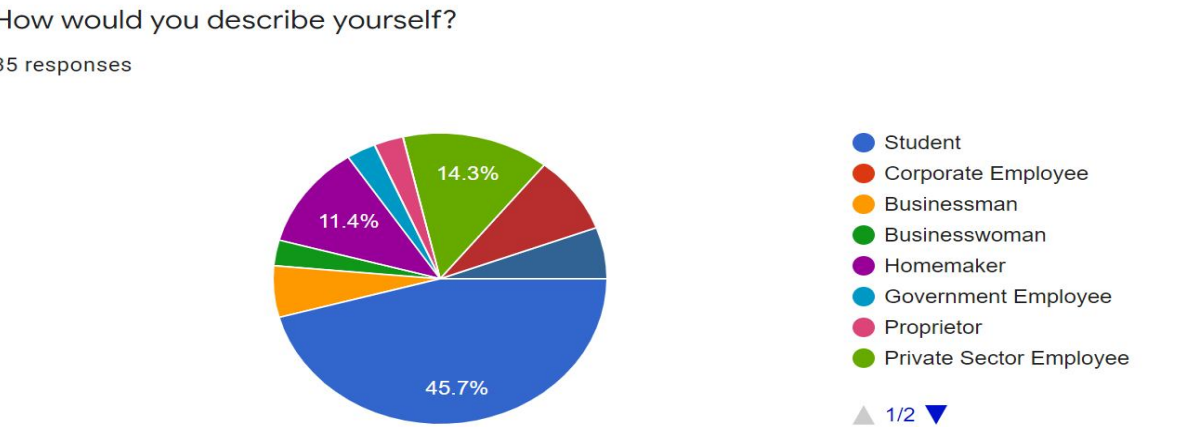
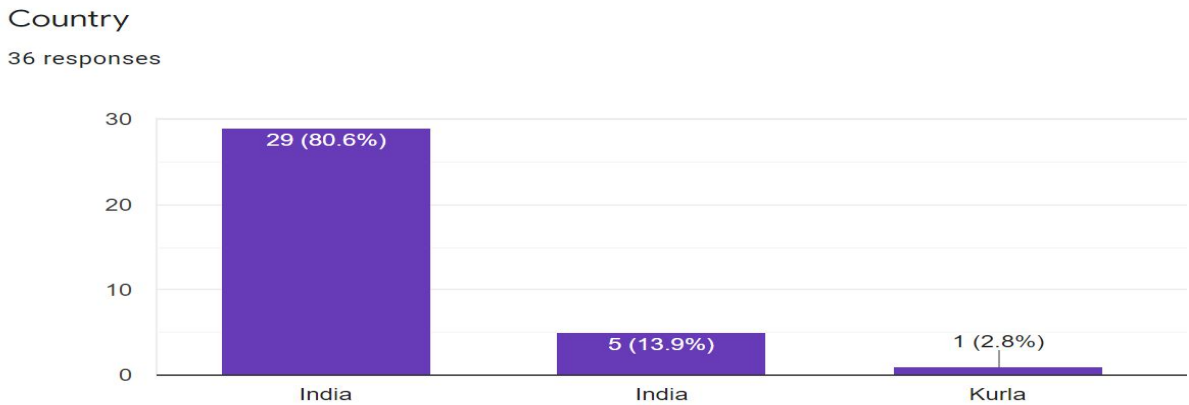
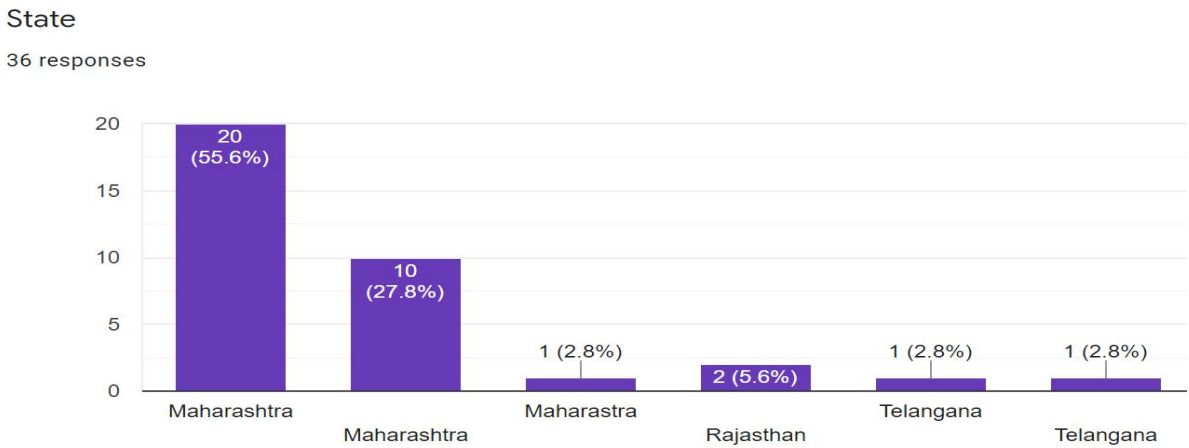
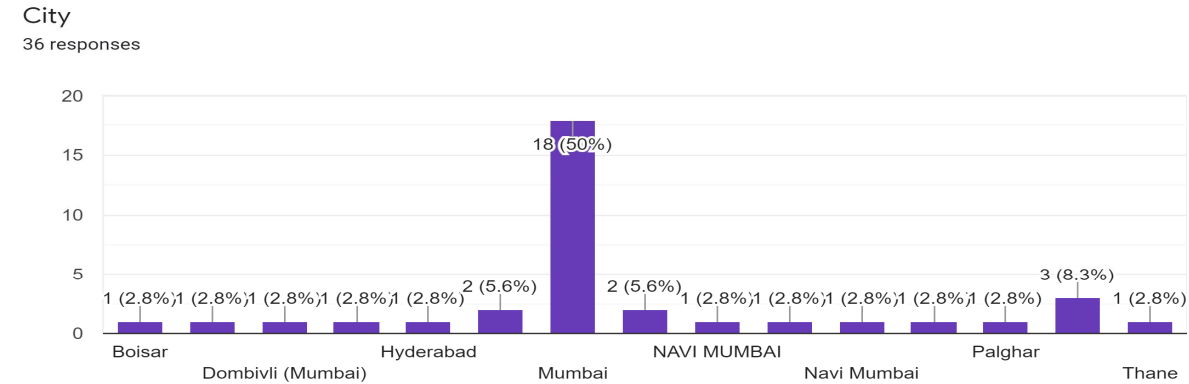
36 responses



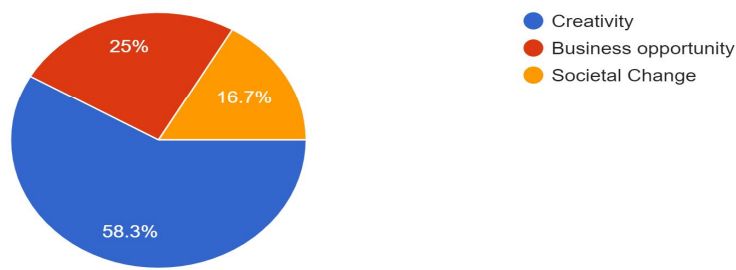
Gender

36 responses

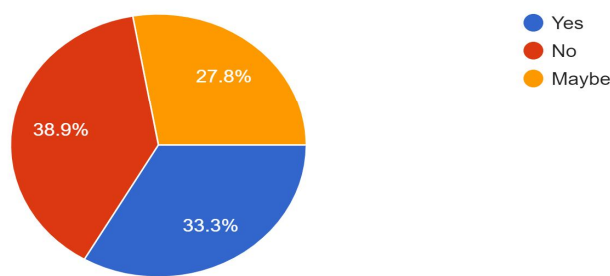




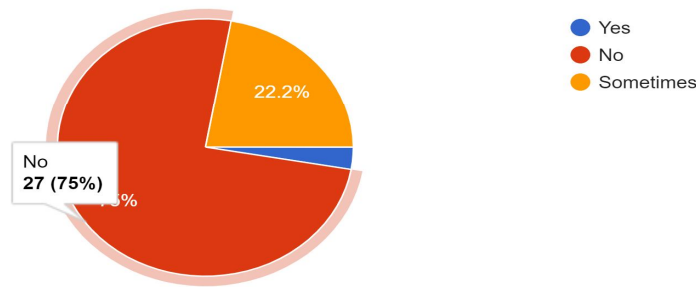
What is Innovation for you?  
36 responses



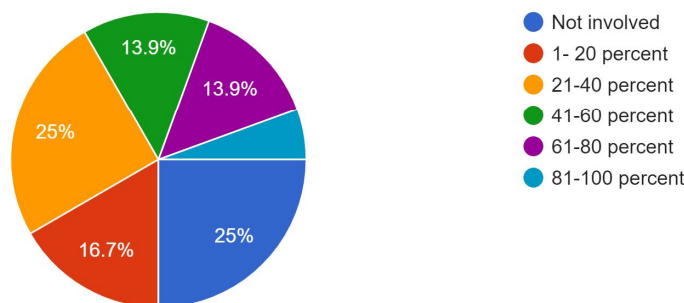
Are you aware of Social Innovation Ecosystem?  
36 responses



Have you been involved in any Social Innovation Ecosystem?  
36 responses

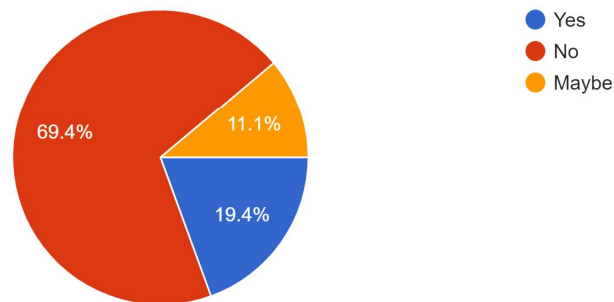


To what level are you active for social contribution towards social change?  
36 responses



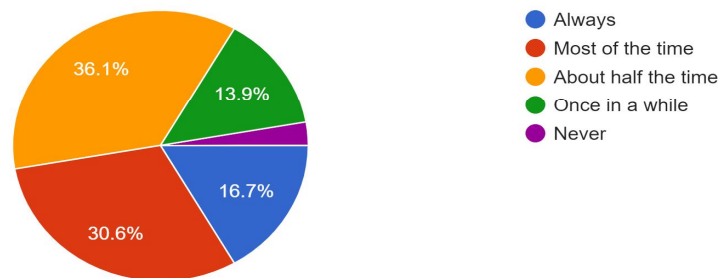
Are you aware of any policies or schemes for Social Innovation Ecosystem?

36 responses



How well do you support governments new policies and schemes?

36 responses



### SIGNIFICANCE OF STUDY

Social Innovation Ecosystem focuses on new work and new forms of cooperation especially on those that work towards the attainment of a sustainable society with emphasis on cross-sectoral collaboration, Awareness of power dynamics and help in communication where language is a barrier.

This method emphasizes the significant/crucial role played by the inter-collaborators in any innovation process- Institutions, Government, Media, that establishes linkage between power, capital, people, and longevity of ideas- who equivalently deserve acknowledgment/credits as much as activists, designers, community groups, creators and idea generators.



Social Innovation Ecosystem (SIE) Technopoles

**SCOPE OF STUDY**

Building a Social Innovation Ecosystem can take place within government; the for-profit sector, the non-profit sector, or in the spaces between them.

Use of new technologies, organizational models, financing models & world views support to create new models & opportunities for a sustainable society.

**LIMITATIONS OF STUDY**

- Little is known about the Social Innovation Ecosystem compared to the vast amount of research into innovation in business and science.
- There is a remarkable dearth of focussed research, analysis, data sets, knowledge of concepts, in-depth histories, comparative research of how social innovation ecosystem functions or can be supported.

**CONCLUSIONS**

- It is possible to provide more accurate analysis and descriptions of how new models, programmes and organisations emerge and spread, how they are crystallised and concentrated in a model that amplifies our expectation.
- Anyone wanting to achieve a social change also needs to contemplate how they think change happens, who can influence eagerness in society, what can circumvent barriers and what might be the realistic time frame for change. New ideas that can meet the unmet needs to build a sound Social Innovation Ecosystem are all around us.
- A successful organisation needs to simultaneously focus on existing activities and support the emerging ones which have more radical possibilities and transform them as the mainstream activities of the future.
- System change has become an integral approach as enablers, supporters, practitioners are supporting simultaneous multiple and inter-collaborator innovation which focuses on larger impacts rather than focussing only on individual innovations.

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**JOIN HANDS TO BREAK THE CHAIN OF POVERTY, UNEMPLOYMENT AND TO EMPOWER YOURSELF THROUGH SELF HELP GROUPS (SHGS)**

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**ABSTRACT**

*The main objective of any Government is to put all efforts to improve the socio-economic conditions of its citizens. Keeping this objective in mind India Government, after Independence adopted Five Year Plans and every Plan had some new Scheme or Yojana to improve socio-economic conditions of people, ultimately all efforts will take India closer to the dream of becoming a developed nation.*

*The Reserve Bank of India and Government of India have taken a number of initiatives, from time to time, such as nationalisation of banks in the year 1969, simplification of rules and procedures in obtaining loans, rate of interest on favourable terms for the weaker section of the society and so on.*

*The loan requirements of the poor are – frequent, small and for a short period of time.*

*Keeping all three points into considerations, the Micro Finance (MF) movement in India began with the introduction of the Self-Help Group- Bank Linkage Programme (SHG-BLP) in 1992.*

*At present, there are two main models for the supply of micro finance in India are prevailing:*

- *Self Help Group - Bank Linkage Programme (SHG-BLP)*
- *Micro Finance Institutions (MFIs)*

*Micro finance refers to a number of financial services such as deposits, loans, and insurance services extended to socially and economically disadvantaged segments of society.*

*In India the microfinance scene is dominated by Self Help Group (SHGs)-Bank Linkage Programme.*

*This paper is an attempt to find out how SHG members can smoothly deal with their financial problems and with the available funds how they can make themselves self-employed and are ready to face any difficult situations arising in their families.*

*Key Terms: Micro-finance, Self-help group and Banks.*

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**INTRODUCTION**

Poverty is one of the chronic problems of India. To remove it completely from its roots is not only a very difficult task but impossible for any Government. But all possible efforts are made to break this vicious circle of poverty, with the weapon of micro finance.

General understanding about micro finance is making financial service accessible to the poor, and eventually bringing them into the mainstream of the formal financial sector which has been also considered as the most effective way to eradicate poverty.

The term micro finance as we know it today originated with the establishment of the Grameen Bank in Bangladesh by Dr. Muhammad Yunus in 1976. Dr. Yunus, economic professor in Chittagong University in Bangladesh, and the Nobel Peace Prize Winner (2006) had faith that if small loans are made available to large number of populations it could help in self-employment and poverty reduction to the greater extent. Dr. Yunus has found microfinance as an effective instrument to overcome poverty among the people. He believed that poor themselves can fight against poverty through micro finance.

At present, there are two main models for the supply of micro finance in India are prevailing:

- *Self Help Group - Bank Linkage Programme (SHG-BLP)*
- *Micro Finance Institutions (MFIs)*

The SHG Bank Linkage Programme was formally launched in the year 1992 as a lead programme by National Bank for Agriculture and Rural Development (NABARD) and rightly supported by Reserve Bank of India (RBI) through its policy support.

SHG-Bank Linkage Programme operates under three different models: MODEL I - Self Help Groups formed and financed by banks.

MODEL II - Self Help Groups formed by NGOs and formal organisations but directly financed by the banks.

MODEL III - Self Help Groups financed by banks using NGOs and other agencies as financial intermediaries.

The microfinance model which was initiated by Bangladesh Grameen Bank and is being used by some Micro financial institutions in India.

Micro Finance is a mechanism and powerful instrument for lessening poverty in the economy.

In India, micro finance is dominated by Self Help Groups Bank Linkage Program (SHG-BLP).

The purpose of SHG-BLP is to provide finance to the poor at a rate which is cost-effective.

As all the members are from the same economic background, they understand problems of each other in a better way and due to this payment default is less and all the members try to pay interest on loans or repay the loans as per the terms and condition at which it was sanctioned to them.

Micro finance helped women in contributing to their household incomes by pursuing activities like tailoring, embroidery, dairy, agriculture, running small tea shops, grocery shops, selling vegetables, running poli bhaji kendras, making cakes, running beauty parlours and so on.

Those women who are the part of SHGs are contributing to the income of the family. They play a very important role in taking very important family decisions like children's education, marriages, purchase of any fixed assets. Micro finance through self-help groups gives courage and self-confidence to women for taking necessary and correct decisions, which also help them to get self-employed and come out of the vicious circle of poverty.

#### **OBJECTIVES OF THE STUDY**

- To study the concept of SHG, its formation and functioning.
- To evaluate the role of SHGs in improving the socio-economic conditions of weaker sections of the society.

#### **LITERATURE REVIEW**

Tamil Nadu Corporation for Development of Women Ltd. (TNCDW) on their credit guidelines for self-help groups explain the meaning of SHG as a small rural poor economically homogeneous affinity group, voluntary formed to save and contribute to a common fund, lends to its members as per group decisions and work together for social and economic uplift of their families and community.

Lalitha Shiva Kumar: It was noted that the small savings of rural women are able to generate the necessary resources that can wean people from exploitative lenders, rely on savings and voluntary savings habits are the key to economic progress. It was also shown that poor people can save considerably with the efforts of the group. Promotion of self-help groups has the potential to bring women into the mainstream of economic development paving the way for sustainable development.

Lalitha and Nagarajan: They studied Self Help Groups of Dindigul, Madurai and Chennai districts in Tamil Nadu and concluded that the organization of women as self-help groups has sown the seeds for economic and social empowerment of women. Participation in group activities, image of himself leading change and organizational and collective, improves access to information and action skills, expands their knowledge about the availability of resources and develops the qualities of leadership. The culture of active participation in the group leads to an improvement of the political acumen which in turn will strengthen and support the overall process of empowerment.

**Data Collection:** The group under study selected from the list of Self-help groups provided by Bank of Maharashtra, Dombivali East, branch. Taking into consideration the present spread of covid-19, only one group selected as it is located in a nearby area.

Secondary data collected from articles and various websites.

Limitations of the study

Due to pandemic the study is restricted to only one self help group.

Bank Manager provided list of ten SHGs which are in near by vicinity, but some phone numbers found not in use, some people were avoiding to meet personally and share their experience.

**Need and Importance of Self-Help Groups (SHGs)**

The very existence of self-help groups is of great importance to make the population who live below the poverty line, hopeful and self-sufficient. SHGs facilitate them to increase their income, improve their standard of living and status in society. It acts as a catalyst to bring this sector of society into the mainstream. Ultimately, the whole nation collects its advantages and it results into development.

**CONCEPT OF SELF-HELP GROUP**

Self-Help Group is a group in which around 10-20 members mainly women from the same or nearby locality belonging to same or low economic stratum come together with the main aim to help each other.

NGOs or Government agencies also help in formation of such Self-Help Groups.

All group members have to pool together their savings, with the help of that savings fund that is generated and it is utilized in a very fair manner by sanctioning loans to group members at low rates of interest compared to prevailing rate of interest in the market. The loan is sanctioned to members on the basis of priority.

At the end of the year benefit is divided among the group members, which is made from all the group transactions (mainly interest on loans and penalties)

The group meets at regular intervals to raise funds and grant/sanction loans to group members at low rate of interest compared to on the priority basis. The place of meeting is unanimously decided.

Meeting should be short and the time at which is scheduled should be convenient for all the members to attend so as to serve the purpose of the meeting

The existence of self-help groups is of great importance for the population who live below the poverty line, as being the member of SHG they are hopeful and self-sufficient.

**MAIN FEATURES OF SELF-HELP GROUP**

- One SHG mainly has 10-20 members of similar economic and social status.
- Usually, they create a common fund by contributing their small savings on a regular basis.
- It promotes goals such as improving the economic conditions, funding for the development and protection from exploitation.
- They make and follow proper rules for smooth function of group activities, by conducting regular meetings in which each member contributes its share and loan applications are considered.
- The savings of the members remain with a bank on behalf of the authorized representative who manages the bank account. The bank deposit is used to give loans to the members for different purposes, at an interest rate which is decided by the group members from time to time in their meetings.
- Mainly members frequently borrow, a small amount and for a short period of time.

**Case Study: Hari Om Bachat Gat**

Mrs. Meenakashi Chalak

‘Hari Om Bachat Gat’ was formed in the year 2012 by Mrs. Meenakashi Chalak, all members of this bachat gat are from Davadi, Dombivali East. There are 15 members in this group from the start of this bachat gat. This group is linked with Bank of Maharashtra, MIDC Branch, Dombivali- East. Each member contributes Rs.500 per month and a total amount  $15 \times 500 = \text{Rs.}7,500$  deposited in the bank by 15th of each month. The group is eligible for a loan of Rs.1,00,000 from the bank, as informed by Mrs.Chalak. Due to the current situation of

pandemic many of the group members are finding it difficult to contribute 500/- so they are requesting to reduce the contribution till the situation comes back to normal.

The group generally meets after a gap of 6 weeks. They keep proper records of all

meetings, and accounting is done for members' contribution, loans sanctioned, loans reimbursed; penalties charged if any due to default in payment.

The group members are very much satisfied with the working of the group and there is good bonding between all the members.

One group member was able to do her daughter's marriage with the help of a loan borrowed from the group and another member purchased a small house.

Mrs. Chalak was doing embroidery work but due to her eye problems she switched to the vegetable business.

She narrated that in the year 2017 her husband was hospitalized due to severe health issues and she can pay all the hospital bills with the help of the amount borrowed from the group funds, which she repaid without default.

The group members can avail the loan at 2% interest rate which is less than the market rate prevailing in that area is between 3%-4%.

The group members are engaged in different activities, like selling earnings, selling vegetables, doing embroidery work etc.

After communicating with Mrs.Chalak and other group members, it could be concluded that SHG gives confidence to members to face any adverse situation and challenges of life with courage.

### **CONCLUSION**

It is fact that there is significant growth in the banking network, but then also a large Indian population remains outside the formal banking sector.

To bring the majority of people under the umbrella of a formal banking network and to achieve the objective of financial inclusion, SHG-Bank Linkage Program is considered much suitable to our country.

The model of SHG-Bank Linkage Program is very successful and extensively accepted in our country.

A pilot project on this model was initiated by National Bank for Agriculture and Rural Development (NABARD) in 1992, and today it is very successful in providing finance to weaker sections of the society.

Micro finance refers to small savings, credit and insurance services extended to the socially and economically deprived section of the society.

Micro finance through Self- help groups have been able to mobilize small savings, either weekly or monthly basis to people who are not expected to have any savings. They were able to recycle effectively the resources generated among members to meet the emerging credit needs of the group members.

To conclude it can be said that there is a need for a new empowerment vision for micro-finance which places the empowerment vision firmly in the context of micro and macro level strategies to attain the objectives of women empowerment, gender equality in rights, power and resources. This will enable financial service providers of different types to assess precisely what contribution their programme can make, what the gaps are and how these gaps can be addressed either through changes within the programme itself or collaboration with other agencies.

Future scope- the study can be done at very large scale taking all SHGs under KDMC or SHGs linked with Nationalised Banks, or other banks in Kalyan -Dombivali.

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**COVID 19: PROSPECTS AND CHALLENGES IN EDUCATION SECTOR**

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**ABSTRACT**

*The Pandemic proved to be a curse as well as a boon for the Education Sector. Teaching without physical and personal contacts has brought in front many challenges for the teachers as well as students. Although the education sector has found its path and settled with the technological teachings yet the absence of Direct Teachings is felt. The power of a pen and paper has been passed on to the keypad and a camera. The impact of Covid on the education sector is seen in its dependency on technology and with the growing time. In this study, the prospects and challenges in the education sector influenced by Covid will be highlighted.*

**KEYWORDS:** Online Education, Covid – 19, Challenges

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**I. INTRODUCTION**

The Novel Coronavirus (Covid 19) has given birth to a new normal and initialized an idea of social distancing. In this period of change, technology has been proved to help to cope up with this era and did not allow activities to stop; be it shopping or studying. (Adedoyin et al 2020). The whole education purpose of teachings, examinations, study materials etc. have been on Online platforms now. Migration of the method from offline to online has also brought in front many challenges. This study will discuss the prospects and challenges of online teachings of undergraduate students

**II. OBJECTIVES:**

1. To analyse the problems faced by the students in online education
2. To enlist certain negative impacts of COVID-19 and to suggest some effective solutions for continuing education during the pandemic situation.
3. To highlight various positive impacts of COVID-19 on education.
4. To study various measures taken by the institutes sector during this pandemic.

**III. LIMITATIONS:**

1. The study is restricted to the students who reside in the region of Mumbai suburbs only.
2. The number of students taken for this study may show a very small sample out of the whole population. Therefore, the result fetched out of such a small number of samples may or may not apply to the whole population.

**IV. RESEARCH METHODOLOGY:**

**Primary Data:** To get the data from students the survey method was used. The data has been collected from 360 respondents (students of UG & PG) by using a convenience random sampling method to fetch the results from the students in Mumbai with the help of a structured questionnaire.

**Secondary Data:** The data has been collected from research articles, journals, writ-up theses and web sources.

**Research Design:** The present study is analytical and descriptive. The study highlights the awareness level and the usage of technology methods among the students. It also highlights the challenges faced by them.

**Hypothesis:** The following is the null Hypothesis set for the study:

1. There is no significant relationship between a student's lack of connectivity, Data speed and their area of residence.
2. There is no significant relationship between time spent in a day for online class and health of the students.

**Sampling Plan:**

- 1) **Sample Unit:** Students from Mumbai
- 2) **Sample Size:** 360

3) **Sample Selection:** Convenience Random Sampling Method

4) **Sampling Techniques:** Non probability

5) **Sampling instruments:** Structured Questionnaire

6) **Tool for Analysis:** Chi square test and Percentage analysis

## V. REVIEW OF LITERATURE

**Adedoyin, O. B., & Soykan, E. (2020).**

Online education should be delivered using adequate planning and methods of instructions using theories and models, put the emergency covid migration of education from offline to online witnessed the absence of proper planning and development of teaching programmes. The global acceptance of online education will make the students used to the applications of technological devices for learning.

**Sun, L., Tang, Y., & Zuo, W. (2020)**

Online education was deeply studied and depicted that many students believe that teaching objectives are fully attained in online learning too. On the other hand, for many students online learning gave a relatively low atmosphere to focus due to less self-discipline and concentrations amid distractions due to improper and unstable network, noisy and disturbing background and also absence of proper equipment.

**Jena, P. K. (2020).**

The Pandemic seems to be existing for a longer period of time in future too, with this there is an urgent need to use the online platforms more efficiently and effectively. The Indian educational policies need to make availability of online education to the diverse backgrounds of the country including remote regions, marginalised and minority communities.

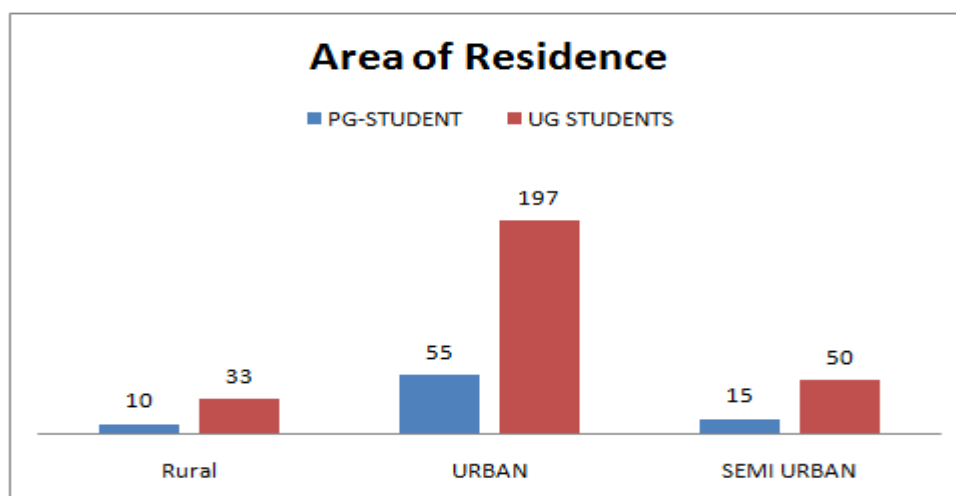
## VI. DATA ANALYSIS AND INTERPRETATION:

### 1. Number of Students (In terms of Gender and Class)

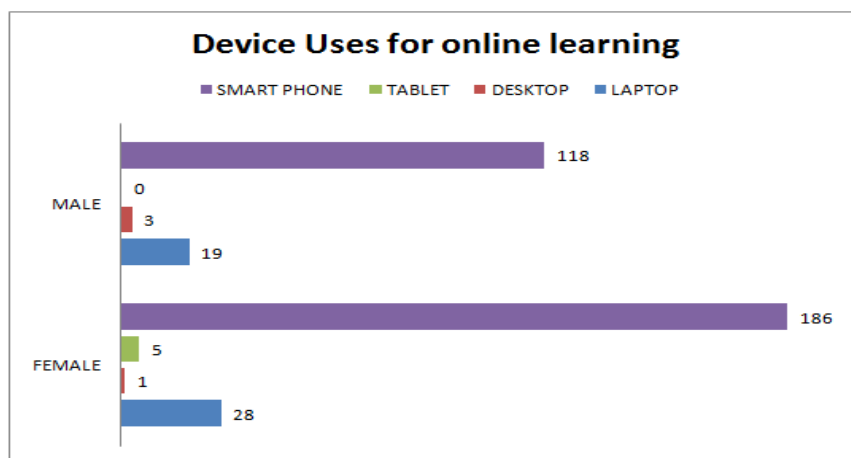
GENDER (TOTAL)	UG (%)	PG (%)
MALE (140)	109 (77.85%)	31 (22.14%)
FEMALE (220)	171 (77.72%)	49 (22.27%)

Out of 360 respondents, the total Female respondents are 220 which is 61.1% and rest 140 respondents are Males which is 38.9%. The Class level of the Undergraduate students among women is 77.85% and that of Males are 77.72%. That means around 22.14% of Females and 22.27% of Males are from Post graduate Level.

- Area of Residence:** The number of students belonging to Rural, Semi Urban and Urban areas are 43 (11.9%), 65 (18.1%) & 252 (70%) respectively. The students belonging to UG are more from Urban area: (197/360) i.e., 54.22%, Rural area: (33/360) i.e., 9.17% and Semi Urban areas: (50/360) i.e., 13.89% Hence number of students belonging to PG in Urban areas: (55/360) 15.27%; Rural areas: (10/360) 2.77% and Semi Urban areas: (15/360) 4.17%.

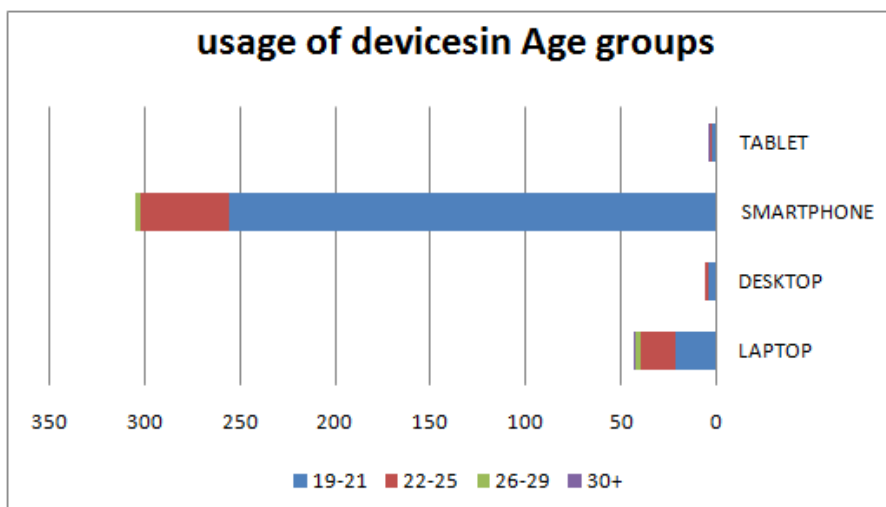


### 3. The usage of Devices such as smartphones, tablets, desktop and laptop among Male and female:



186 Females (51.67%) and 118 Males (32.78%) are currently using smartphones, and only 5 females (1.38%) are using Tablet no male is using a tablet.

### 4. The usage of devices such as smartphones, Tablet, Desktop and Laptop for different Age groups.



Students belonging to the age group of 19-21 years are more attractive towards the utilization of Smartphones (256/360) rather than using Tablets. The age group of 22-25 This group also shows the highest interest in using smartphones i.e., 47 / 360 and 18 respondents are attracted to Laptop as sources and only a few i.e., 3 respondents are using Tablet.

The People belonging to the age group of 26-29 years are also attracted to the usage of Laptop, desktop, smartphone and tablet, which is proportionately lesser than those people belonging to 19-21 years of age, i.e., 3, 0, 2 and 0 respectively.

### 5. The time spend in a day for online classes among UG students & PG students:



The time spent by students on their studies Under the category of UG and PG students. It can be seen that 127 UG students spent 4-6 hours which is higher than PG students that is only 1. Students spending less than 2 hours are 30 from PG and 26 from UG. There are only 4 PG students in the category of 6-8 hours.

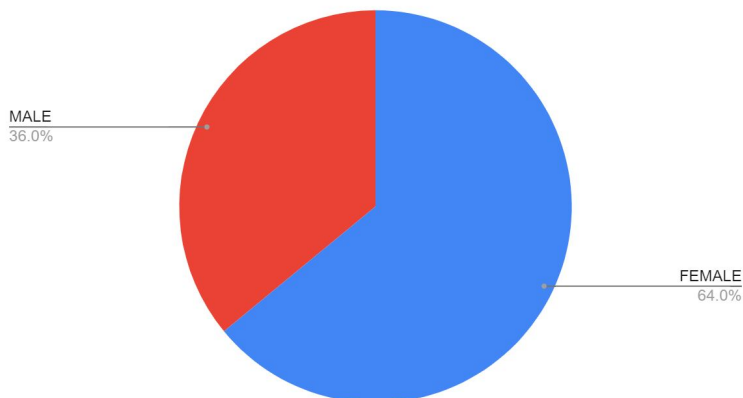
**6. Number of students face interruptions during online class due to lack of connectivity, data speed and limit:**

Interruption during online class due to	Always	Sometime	Never
Lack of connectivity	81	258	21
Data speed	83	195	82
Data limit	57	158	145

In this case 81 students Always face Connectivity problems (22.5%), whereas 258 students face connectivity issues Sometime (71.67%) and 21 students (5.83%) said they never faced connectivity errors. In the case of the Data limit, 82 students (82/360) answered that they never face data limit issues 83 Students face problems always and 195 face data limits always. for Data speed, 57, 158 & 145 students said they face problems always, sometimes & Never Respectively.

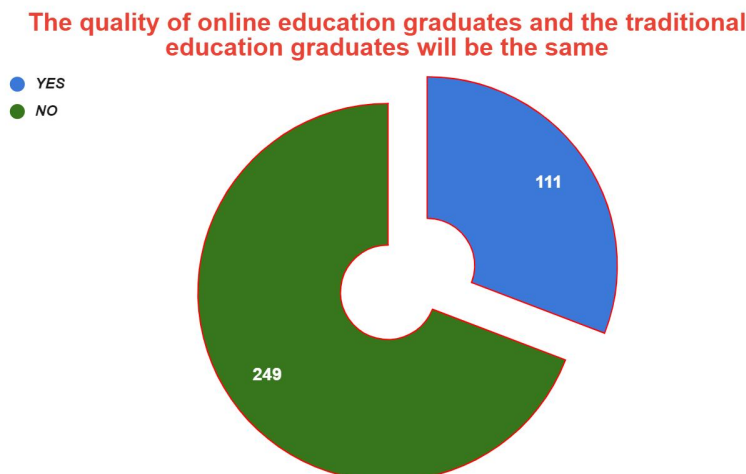
**7. Impact on Physical Health:**

IMPACT ON PHYSICAL HEALTH



228 /360 have experienced strain in eyes due to long hours of online classes & also experienced muscle pain due to wrong posture during online class i.e.; 63.33% of the students have faced the problem of their physical health and 36.67% of students don't have any health issues.

**8. The quality of online education graduates and the traditional education graduates will be the same: -**



249 students (69.16%) have replied yes but 111 students (30.84%) students don't agree with the same.

**VII. HYPOTHESIS TESTING:**

**1(a) There is no significant relationship between a student's lack of connectivity and their area of residence:**

Lack of connectivity/ Area of Residence	Rural	Suburban	Urban	Result (chi-square test)
Always	17	11	54	Calculated value= 13.67
Sometimes	21	52	184	Table value= 9.488
Never	5	2	14	Result= Significant

The above table suggests that there is a significant relationship between a student's lack of connectivity and their area of residence. Therefore, the null hypothesis is rejected.

**1(b) There is no significant relationship between a student's Data speed and their area of residence:**

Data Speed/ Area of Residence	Rural	Suburban	Urban	Result (chi-square test)
Always	19	10	48	Calculated value= 16.05
Sometimes	21	44	164	Table value= 9.488
Never	3	11	40	Result= Significant

The result mentioned suggests that there is a significant relationship between a student's Data speed and their area of residence. Hence, the null hypothesis is rejected.

**2(a) There is no significant relationship between time spent in a day for online class, and student's eye strain:**

Time Spent/Strain in Eyes	Yes	No	Result (chi-square test)
Less than 2 hours	33	22	Calculated value= 11.98
2 - 4 hours	103	56	Table value= 7.815
4 - 6 hours	102	26	Result= Significant
6 - 8 hours	15	3	

The above table suggests that there is a significant relationship between time spent in a day for online class, and student's eye strain. So, the null hypothesis is rejected.

**2(b) There is no significant relationship between time spent in a day for online class, and student's muscle pain:**

Time Spent/Muscle Pains	Yes	No	Result (chi-square test)
Less than 2 hours	35	20	Calculated value= 8.23
2 - 4 hours	108	51	Table value= 7.815
4 - 6 hours	103	25	Result= Significant
6 - 8 hours	13	4	

The above table suggests there is a significant relationship between time spent in a day for online class, and student's muscle pain. Hence, the null hypothesis is rejected.

**VIII.SUGGESTIONS:**

1. There should be proper Continuous Evaluation of internal and external components to maintain the quality of education where case study methods and open-ended questions should be included.
2. Recording of all the lectures should be done and provided to the students which will give them access to education even if they miss the class due to network connectivity issues.
3. Class timing should be kept between time gaps which will help to reduce eye strain due to continuing watching the lecture.
4. Telecom industries must implement schemes for students for unlimited internet or fast data which can help them overcome the hindrance to their online studies.

**IX. CONCLUSION**

COVID19 pandemic opened the door for using the technological instruments in education specially in higher education where students are mostly mature enough to use, adopt and understand the various Devices (Smartphones, Laptop, Tabs, Computer) and Applications for their learning work. Factors such as lack of connectivity, data speed, and data limit led to creating interruptions during the online studies of the students. Problems such as impact on physical health are seen among the students where strain in eyes, back ache, stiffness in shoulder, hand pain, headache, etc. are the most important to consider and proper preventive measures should be taken into consideration to get rid of all these problems.

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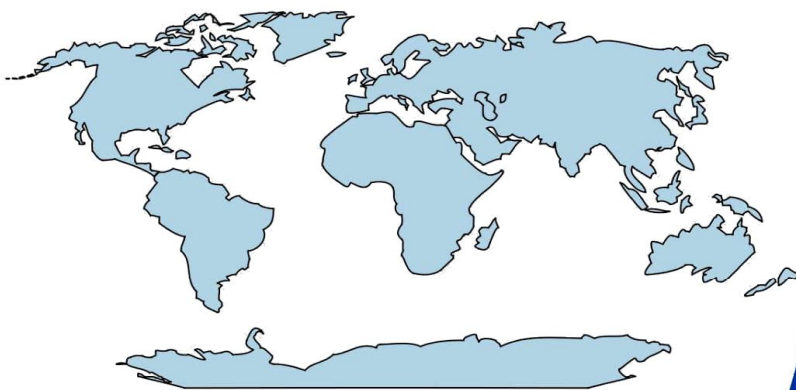
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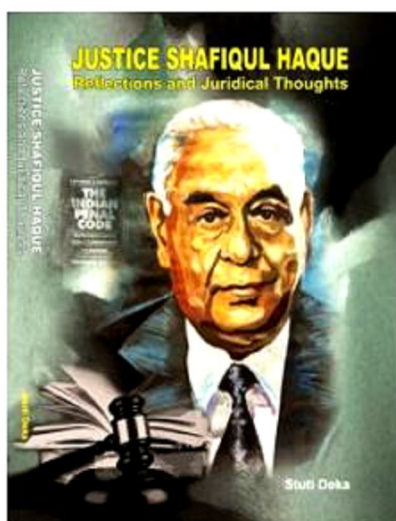


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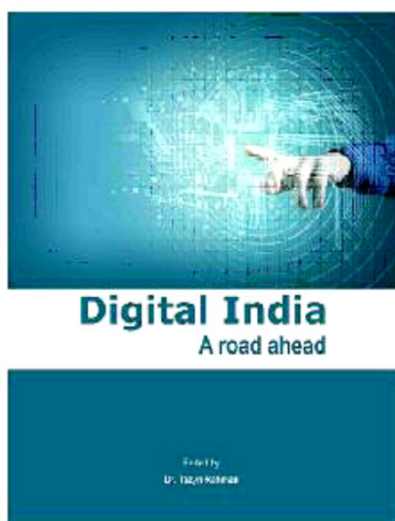
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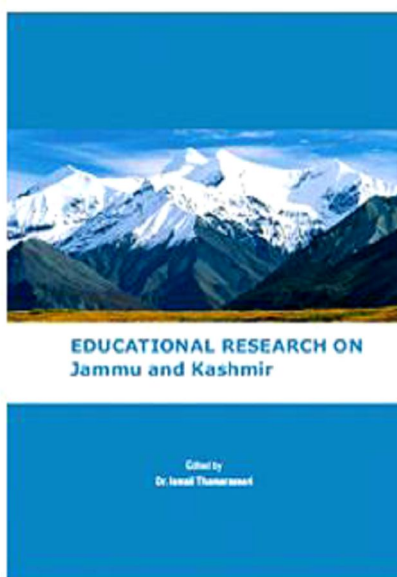
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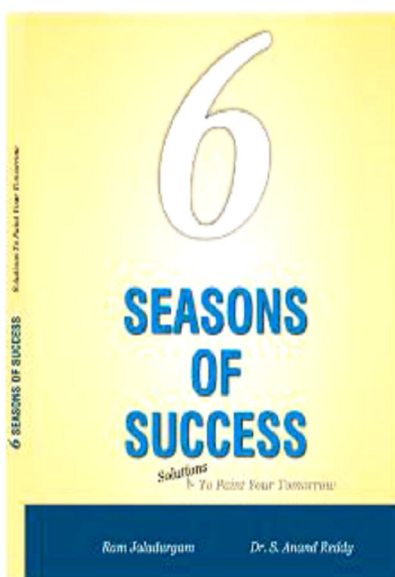
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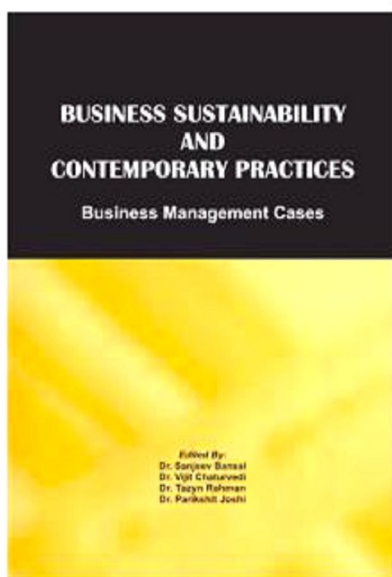
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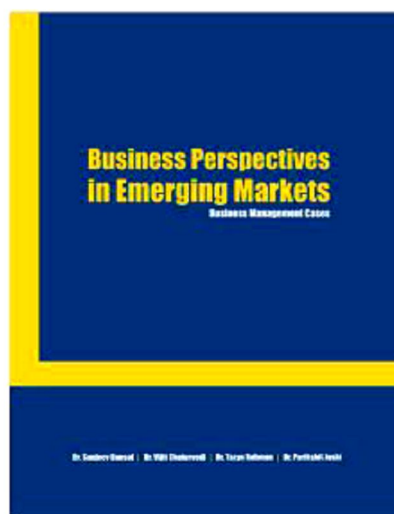
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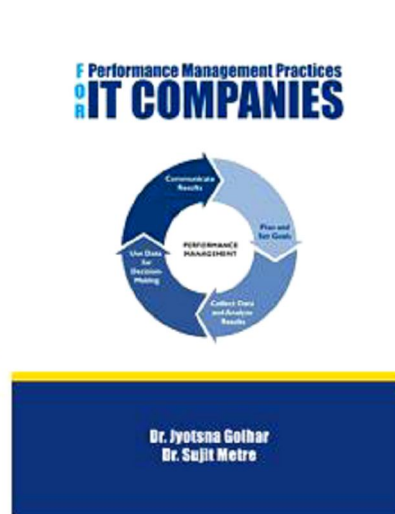
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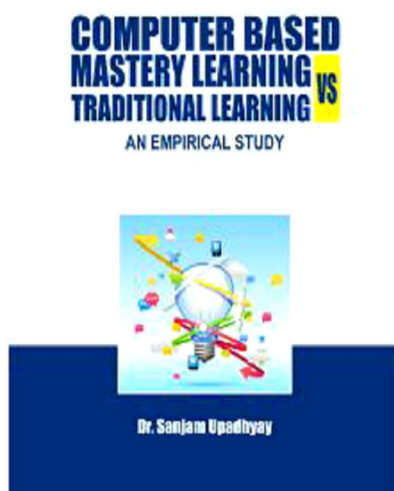
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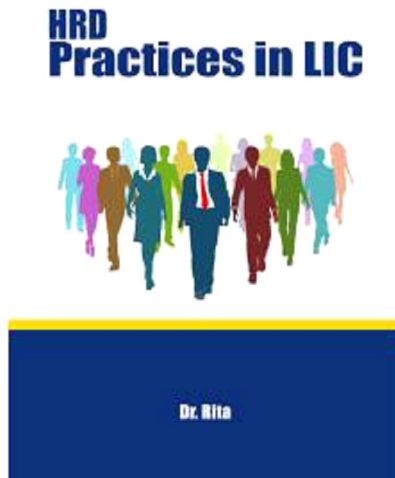
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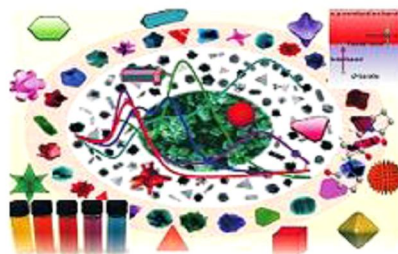
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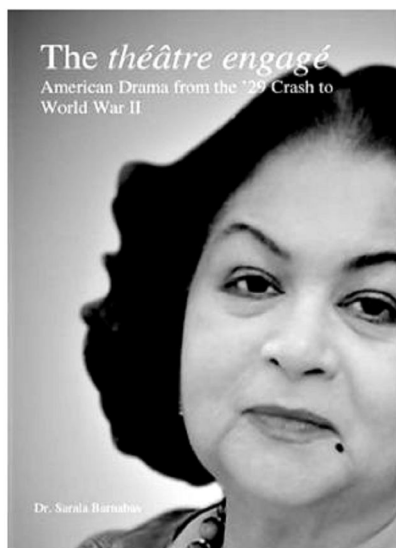
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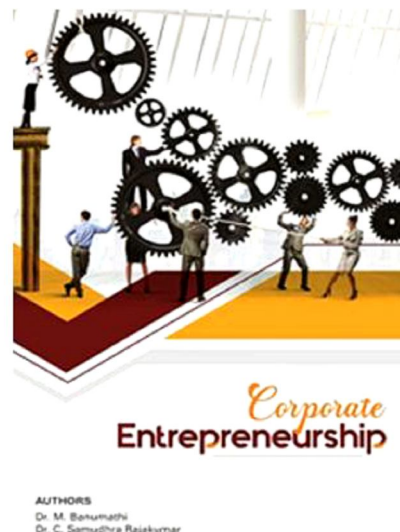
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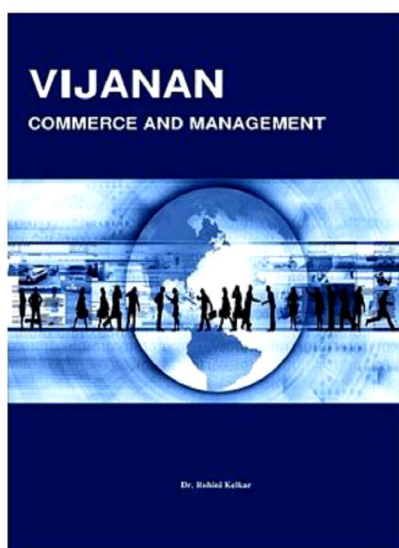
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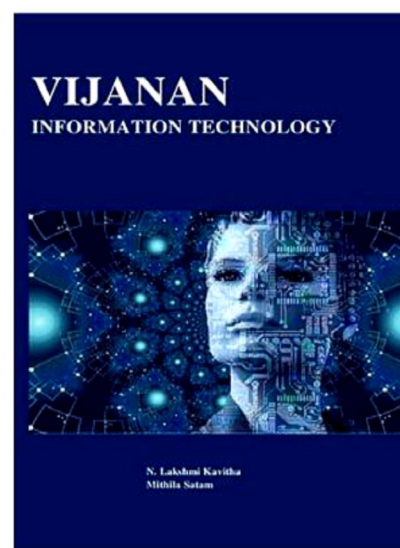
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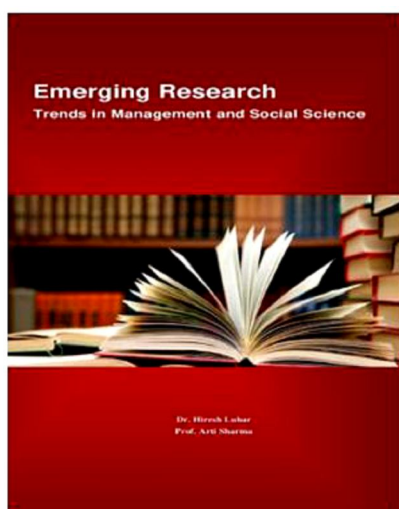
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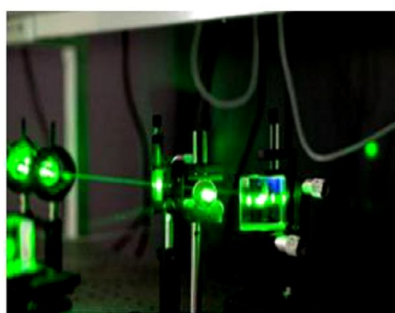


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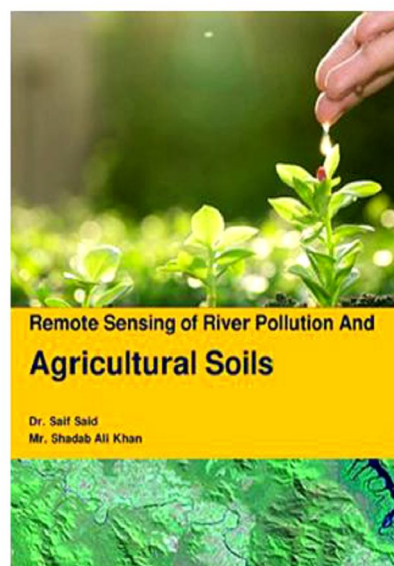
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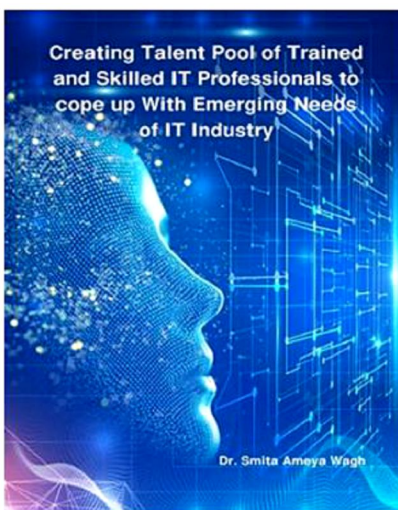
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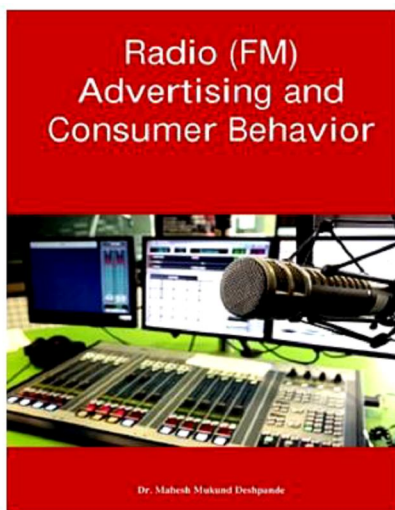
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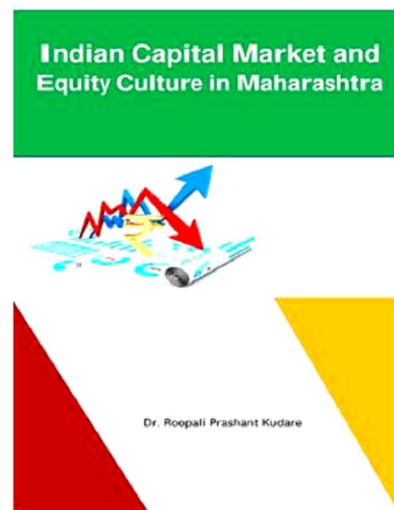
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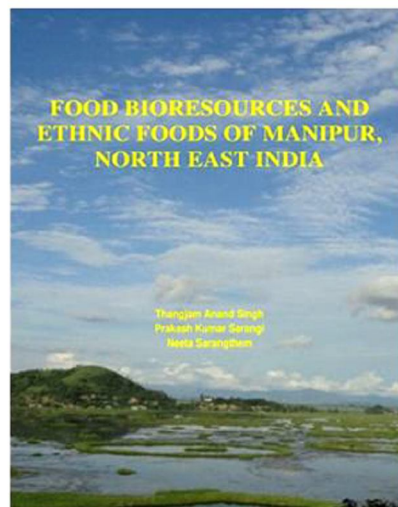
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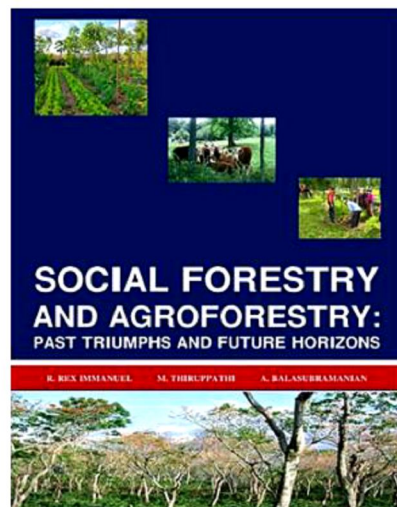
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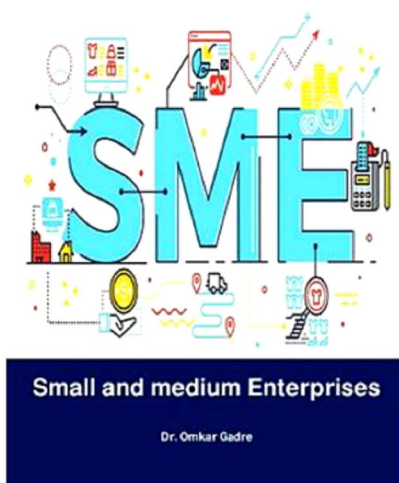
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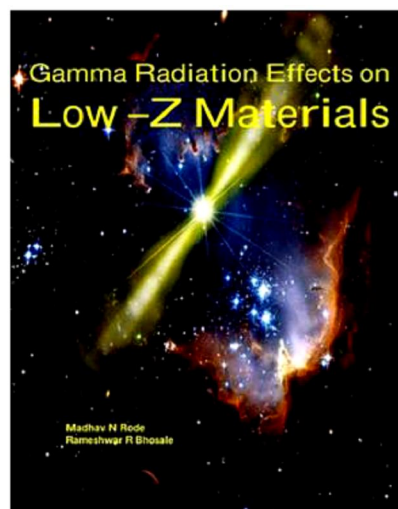
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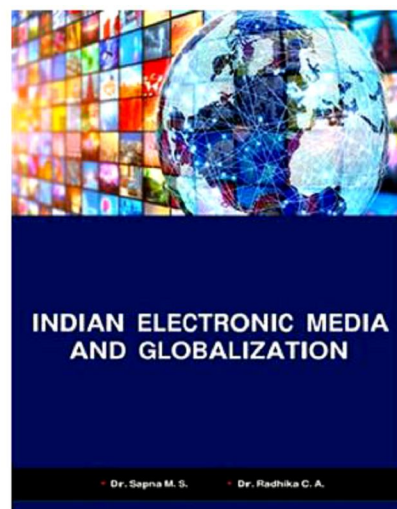
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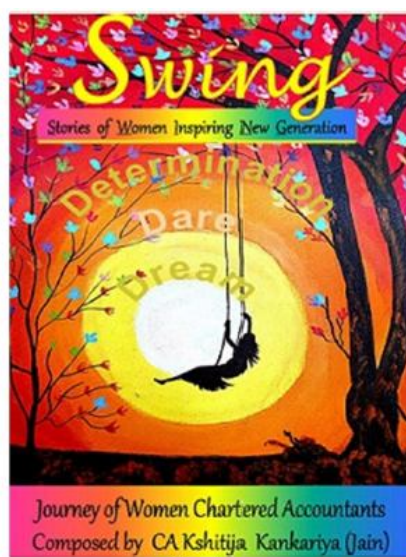
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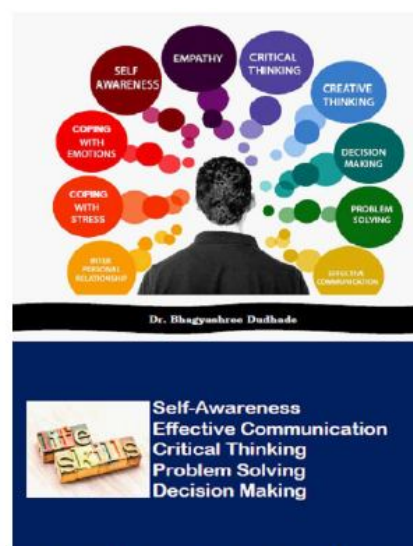


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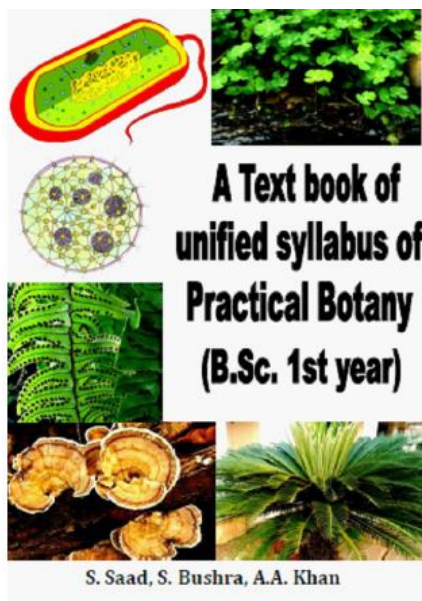
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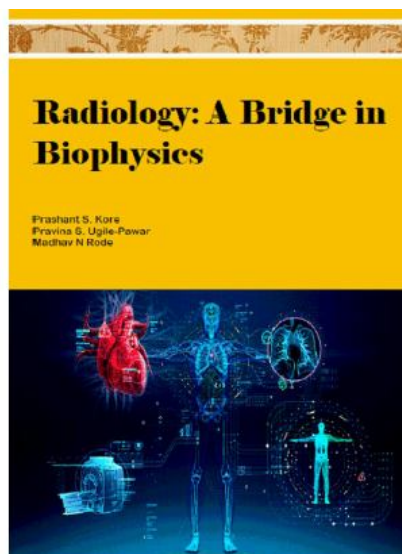
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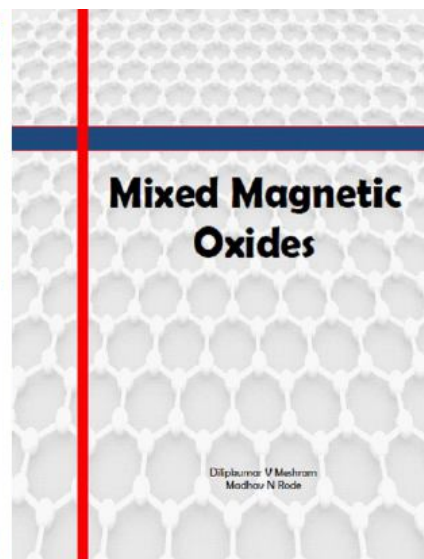
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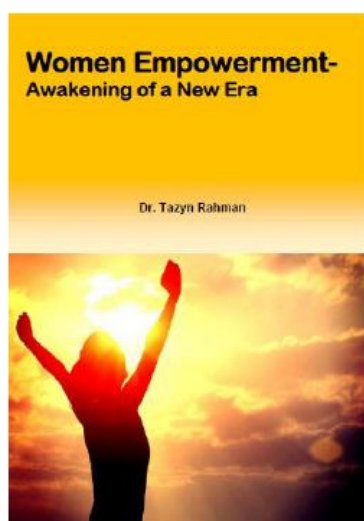


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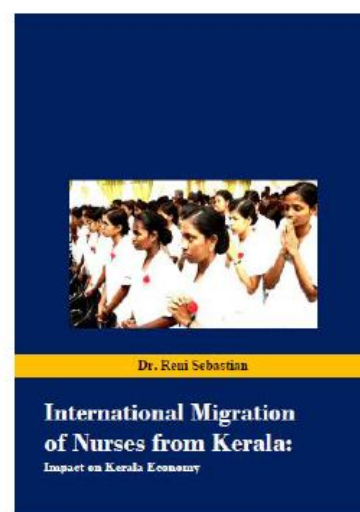


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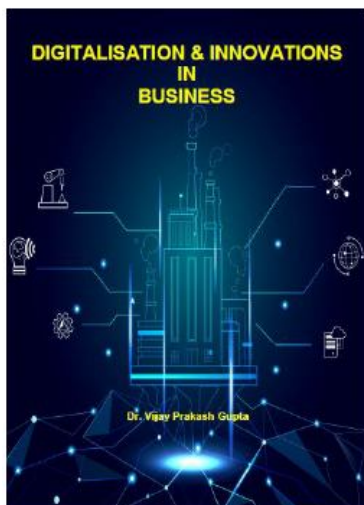


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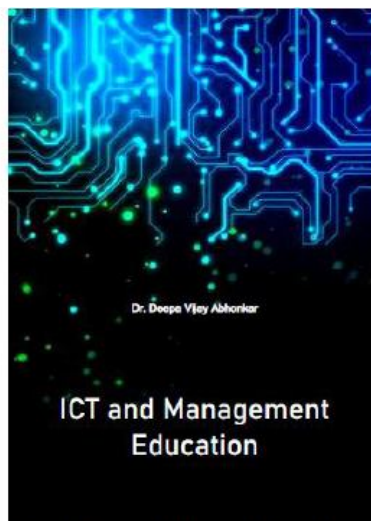
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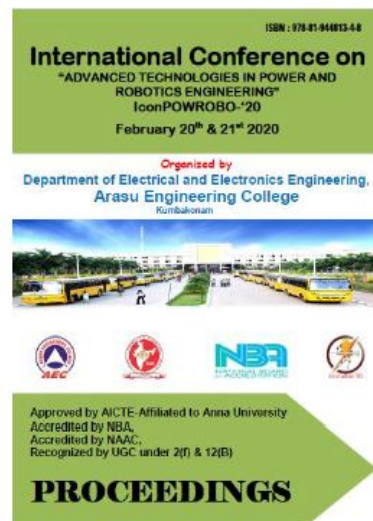
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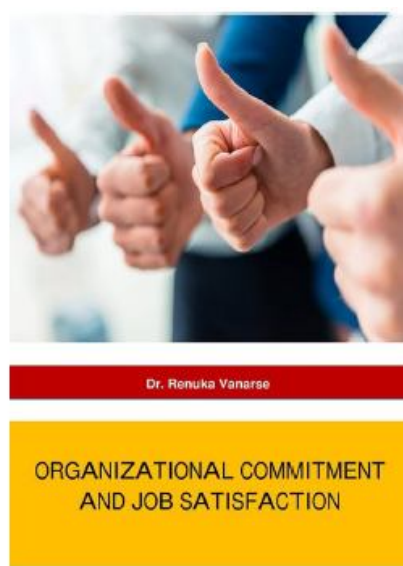
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