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MULTIDISCIPLINARY NATIONAL LEVEL STUDENT RESEARCH E-CONFERENCE 2022

"ECONOMIC, ECOLOGICAL AND ENTREPRENEURIAL INNOVATIONS AND DEVELOPMENT IN POST PANDEMIC ERA: ISSUES, CHALLENGES AND PROSPECTS"

Monday, 31st January, 2022

Organised by

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ABOUT THE COLLEGE

Bunts Sangha, Mumbai was established in 1927 as a Charitable Trust and devoted itself to the cause of education, health care, and social reforms of downtrodden and underprivileged sections of people. The Sangha has been in the service of people for almost ten decades. During the last decade, more emphasis was given to the education of the masses.

Bunts Sangha's S.M. Shetty College of Science, Commerce and Management Studies was established in 2008 by Bunts Sangha, Mumbai. The college is permanently affiliated to University of Mumbai. Bunts Sangha's S.M. Shetty College of Science, Commerce and Management Studies is committed to the promotion and propagation of quality education with excellence. Currently the college offers B.Com, B.B.I., B.A.F., B.M.S., BAMMC, B.Sc.IT, M.Com (Advanced Accountancy), M.Com (Business Management), and M.Sc.IT Programmes with about 2550 students on roll. College has approved Ph.D. Centre in Commerce leading to Ph. D degree. College looks forward eagerly to a continuing and creative engagement in the field of education with the challenges of time. It has been accredited by NAAC with 'A' grade, IMC RBNQ Certificate of Merit 2019 and also ISO 21001:2018 certified.

ABOUT THE DEPARTMENT OF COMMERCE

The Department of Commerce and Allied Subjects was established in the year 2009 with the objective of imparting the curriculum to the students in the most efficient way and to enhance the teaching learning process through various curricular, co-curricular activities and curriculum supplementing soft skill courses. The Department has taken a pivotal role in conducting certificate courses in Financial Markets, Equity and Advance Equity research and Basics of Banking and; organizing Student Research Conventions every year along with many career guidance and expert guidance sessions.

ABOUT THE NSS UNIT

The NSS Unit of Bunts Sangha's S.M.Shetty College, Powai consist of 2 units of 150 volunteers. Volunteers must complete 120 hours at University level, College level and at adopted area. Volunteers must also complete 7 Days Residential Camp in one of the adopted Village. The NSS Unit conducts various activities such as Blood Donation drive, Swatch Bharat Abhiyan, Theme based activities at college level and so on. Our NSS unit has focused on Health, Education & Women Empowerment related activities. Our NSS unit is having Red Ribbon Club. More than 46 NSS Volunteers has been actively involved in RRC activities. RRC members planned to conduct various programs on creating awareness on HIV/AIDS

ABOUT THE CONFERENCE

Covid-19 and the subsequent Lockdown have dented the Indian and Global Economy and affected various industries. Due to which, many businesses are struggling to survive. While some industries have recorded sizeable growth and are likely to expand once the pandemic subsides, others continue to struggle and bounce back once the crisis ends. The aim of this conference is to explore the dynamics of Covid-19 pandemic on the world economy at large and Indian Economy in particular.

Post pandemic behavior across all sectors and segments has been significant and the measures undertaken by various authorities are noteworthy. With the shutdown of physical schools, colleges and educational institutions, virtual classrooms and digital education have swiftly become the new norm. Where Physical and Mental Wellbeing had a significant mark, e-commerce was also booming despite of all pandemic disruptions, also witnessing a shift in the payment preferences from cash to cashless. Gradual shift of consumers to the new normal in their professional and personal lives has also opened new opportunities for multiple industries. It will be important to see how these transformations play out for the current systems, infrastructure and the wider population, as the economy gradually returns to normalcy with the easing of lockdown.Governments and the Central Bank have reacted to the crisis with large-scale fiscal and monetary stimulus packages, while businesses are increasingly turning to digital solutions to combat the pandemic's long-term lockdowns, travel restrictions, and social isolation.

There is an urgent need to revisit the economic, ecological, and entrepreneurial disruptions that have occurred in the post pandemic era, its issues, challenges and future prospects. Discovering and Exhibiting innovations and developments that have been adopted, due to the revolutionary changes brought in by the Pandemic is need of the hour. This is the central purpose of our National Conference.

KEYNOTE ADDRESS

Dear Participants and Readers,

I am extremely delighted to give the keynote address on the occasion of **National level e-Conference on "Economic, Ecological and Entrepreneurial Innovations and Development in Post Pandemic Era: Issues, Challenges & Prospects"** organized by **Department of Commerce and Allied Subjects** in collaboration with**NSS UNIT** of**Bunts Sangha's S M Shetty College of Science, Commerce & Management Studies** on **31st January, 2022**

The Covid-19 posed a situation which took people all over the world by a storm. The righttechnique and tools to cope with the pandemic were not available and with lockdowns imposed all over the world, the economy of various countries contracted. India too, was affected by thePandemic. The people, economy and development suffered in India due to the pandemic. The Government took various measures to revive the situation and did a commendable job in keep things under control.

The Indian economy suffered during the pandemic.

From April to June 2020, GDP dropped by a massive 24.4%. Further from July to Sept 2020, the economy further contracted by 7.4 %. The GDP started to grow in the third and fourth quarter of 2021 i.e. from Oct to March by 0.5% and 1% respectively. However that was not enough to revive the economy. There was an overall contraction of the economy by 7.3% for Financial Year 2020-21. Various businesses had to close down as they did not have enough sales, whereas others which were functioning, decided to work with limited manpower. This resulted in the unemployment rate going up drastically and the livelihood of millions of people was affected. Various sectors have been affected due to the pandemic and continue to be affected post pandemic also. The sectors severely affected are:

Tourism, hospitality, aviation, real estate and construction to name a few. The restrictions are coming down and business is on its way to revival. However the economy will require some time to recover completely.

The ecological environment of India was also affected during the pandemic. Due to thelockdown the quality of air and water had improved as people were not moving outdoors. However once the restrictions started to ease, there is a sharp deterioration in the quality of air. This is so evident in the metro cities of India. Air pollution is a very big problem in Delhi. The Government is taking various steps to resolve it, however it is not an easy problem to solve. Mumbai is also witnessing a fall in the quality of air. Clean drinking water is a problem that India has in various states, whereas in other states there is always water shortage.

The Indian people definitely need to learn how to manage disasters. Something that the pandemic has taught the country is that it needs to enhance disaster management skills of people. Work in this sphere needs to be done by Government and Private sector in coordination. If a disaster happens in the future the country and its people must be in a position to tackle it in a better way. Work on urban planning should be taken more seriously in order to conserve the environment and make it more sustainable.

One of the most aspiring qualities of Indian people is that they are very innovative and havegood entrepreneurship skills. Though the pandemic changed the business situation, entrepreneurs continued to innovate and come out with products that would cater to the new normal situation. Innovations and startups were seen in various products being available to tackle the pandemic from face masks to sanitizers to online education etc.

The pandemic has taught various lessons to the Indian business, they are:

- ❖ Technology plays a critical role in business and it cannot be ignored. Technology helps the business to adapt to the changing needs of the economy with ease.

- ❖ Entrepreneurs should work on products which help to improve the lives of people. This focal point must always be kept in mind.

- ❖ Need to protect the environment in every possible way. Business processes should be environmental friendly.

- ❖ Working from home, can be exercised as an option to increase productivity and reduce travelling time of the employees.

- ❖ Virtual meetings allow you to connect with people across the globe.

- ❖ Growing skills, Re-skilling, Up skilling of employees is important to create sustainable business.

- ❖ Hygiene, cleanliness and health are terms which are very important for a consumer when they avail products /services.

There are two sides of a coin, with every negative there is a positive. The pandemic did throw a lot of challenges to the people of India. However with every challenge there is an opportunity to innovate and think out of the box. That is what the Indian entrepreneur needs to do. They need to think of providing solutions to the problems people face keep the environment in mind. People should resume normal buying behavior and the economy will gradually grow, resulting in the growth of the people and the country.

I am overwhelmed with the high number of quality research papers received and tested on plagiarism norms for the virtual conference and each paper contributors evaluated through their presentations in technical sessions by expert resource persons .

I wish to place on record the support and motivation provided by the Institutes management trust members especially the presence of Chairman of the trust Shri B R Shetty, Vice Chairman, Secretary and Treasurer. Earnest thankful to Principal of the Institute - Dr. Sridhara Shetty for his valuable guidance and support in the entire organization of the e-conference. The pillar team of the events grand success goes to the entire organizing team members, convener of the event Dr. Vijay Vishwakarma and other team members.

Sincerely Wishing & Congratulating the entire Team for their tireless efforts

Thanking you all

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Research Papers

PRIVACY: IS IT A THREAT TO CYBER SECURITY?

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ABSTRACT
In trending digital world, every individual is much concern about their online activity and thereby the privacy related to it. Privacy is considered as one of the important factor when it comes a talk of security. The following survey paper aims to understand and highlight the importance of privacy in cyber security. It gives a compelling argument for both ends and tries to find a balanced view between the two. To achieve the objective we have conducted a survey that showcases major view of people on privacy.

Keywords: Privacy, online, anonymity, cyber, security, information, data.

I. INTRODUCTION

As the dawn of the new era dominated by the internet approaches us, no matter how hard we try it is impossible to not have an online presence. From our passports, and various other government documents to simple transactions or for using any of the messaging services, digitization is leading the way. However, in recent times people are getting more and more concerned about information leaks and data manipulation. The term "Privacy Threat" has gained a lot of prevalence in the world around us. Getting tracked on the internet is something that has been a major cause of concern for many, which has led to a global need for anonymity on the internet. While anonymity can be a boon for some, it comes with its risks. The following paper aims to highlight those risks and tries to assess if there is a way to provide both privacy as well as security to the user or an organization.

II. PERSPECTIVE VIEW OF PRIVACY

Privacy is one of the most difficult to define human rights as it cannot be restricted to one particular definition. The definition may vary according to the context and environment. Privacy has often been used along with Data Protection, which relates privacy with the management of personal information. In simple terms, it can be said that privacy protection is to what extent society or others can intrude into a person's individual affairs [1]. In the context of the internet and Cyber World Privacy can refer to information privacy and privacy of communications.

TYPES OF PRIVACY:

Information Privacy: Privacy protection for personal data such as credit information, medical records, social security numbers, contact numbers, etc. [1]

Privacy of Communications: Security and privacy of our conversations, mail, email, phone calls, etc. [1].

III. Being anonymous online or online anonymity

In colloquial terms, online anonymity applies to any interaction a user has on the internet that protects his or her identity from being shared with another user or third party. Anonymity can have different levels as well [3].

Cyber Security: Cyber Security is the use of technology to protect systems, networks, programs, and the user from cyber-attacks. Cyber Security may also include protection from Cybercrime such as extortion, harassment, fraud, defamation, etc. [4].

Privacy and Online Anonymity

Privacy and Anonymity are terms that are often co-related. These terms differ in terms of actual application and are used interchangeably. Anonymity means that your identity is not revealed however, your activity is visible to everyone. Privacy means to keep your identity public but your activity is kept a secret [5]. To understand this better let's consider an example.

Imagine a class of a certain number of students. Each student has been given a code secretly and the results of their examination are sent using that code. The teacher herself is not aware of which code belongs to which student nor have the students informed each other about their respective codes. When the results arrive, the teacher sees that 10 codes have got an F or they have failed the examination and the results are put up on the notice board. Since the notice is publicly posted everyone knows 10 students have failed. However, no one knows who those 10 students are. This is anonymity.

Now let's say that a student named M is very popular in his class. He sees the results and realizes that he has failed the examination. M wants to avoid getting punished and does not want to reveal to anyone his results out of shame. Everyone knows M but no one is aware that he has failed. This is privacy.

The government and various organizations that have been set up by them for protecting us from people like M. To achieve this, they use various methods such as wiretapping, tracking, monitoring our online activity, monitoring our social profiles, and private searches (legally or illegally). Some people might say, "I have nothing to hide as I am not committing any crime or act of treason." Others might think that these people don't realize the actual implication and extent of this and how it may take away some of their civil rights [5]. However, even if you have nothing to hide internet privacy is crucial especially in the times, we are living in. Let us explore further for the reason.

IV. NEED OF CRUCIALITY IN INTERNET PRIVACY

Let's go back to our dear friend M again. M has been having some trouble with one of his professors. The professor is constantly abusive, unprofessional towards the entire class. One of the students of the class wants to file a complaint against the professor. Now when you want to report this to the higher authorities of the school administration you would not want your identity to be revealed. Because the professor if he has not been removed, might fail you in your terms or give you a bad report.

Applying this concept to an entire country and its government. Is there any way to assess whether they are using their powers correctly? If we want to protest, report an injustice, use social media to spread awareness about our problem, raise our voices when they abuse their powers can we do it without being labeled as anti-national [5]?

Considering all these factors helps us to conclude. If we are being constantly monitored and any organization can peep into our lives as per their will and wish. We may lose our freedom of speech. Sensitive information of our businesses, our private conversations might also come under constant surveillance.

The companies which provide a majority of the online services like search engines, emails, social media sites, chat applications are available for free. These services use user data, search history, transaction history, keywords in chats, etc. to present the user with advertisements to make money. Understandably, they make use of these advertisements to support their infrastructure. The problem is that they don't provide the user an alternative to keep their data at all. Which is a cause of concern as many users would be willing to pay to keep their data secure and untouched by any third person.

V. DANGERS OF ONLINE ANONYMITY AND PRIVACY

While it is true that online privacy is crucial it comes with its own set of dangers as well. One of the main dangers is that it can lead to online abuse [6]. For anyone who uses social media extensively knows what can happen if people can completely hide their identity. The ones who may not be able to criticize you in person will use this to post harsh comments on your profile and make abusive and negative comments under their anonymous identity. It can lead to online fraud. Impostors and conmen will abuse this privilege to commit fraudulent acts and businesses could end up trading illegal goods such as alcohol, weapons, drugs, etc. [6]. A good example of this is the Silk Road [8]. Which was an online black market on the darknet. After a lot of investigation and findings, the authorities were able to arrest the operators of the Silk Road in 2013. Another problem is that there will be fewer consequences to the people who make rape threats or otherwise act illegally online in comparison to what would happen if they did those things in person or the real world as we call it [6].

VI. SURVEY

We conducted a survey in which over 75 individuals took part. The main goal of this survey was to know what people think about privacy and data sharing. The survey was shared amongst students of multiple fields including computer science students, professors, IT professionals, and engineers as well as professionals of other fields. To maintain a unique response criterion, the email ids were used as the primary key.

Survey Graphs
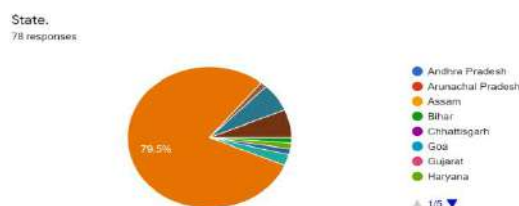
Figure 6.A: Survey question about the state they belong to.

How much importance do you give to privacy?

How much importance do you give to privacy? (1 being least and 5 being the utmost)
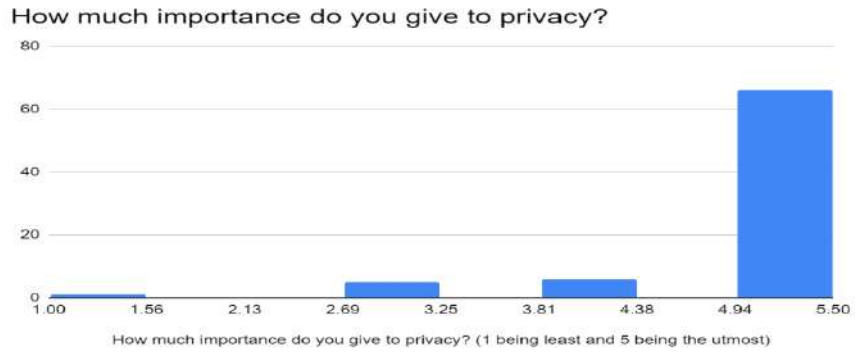
Figure 6.B: Importance to Privacy

How much importance do you give to Cyber Security?
78 responses
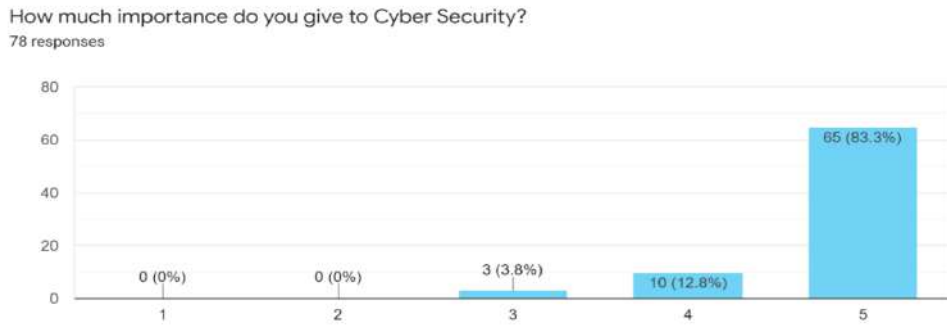
Figure 6.C: Importance to Cyber Security

Is it right for the social media services or chat services to display personalized advertisements based on your conversations, search history, voice notes, etc.?
78 responses
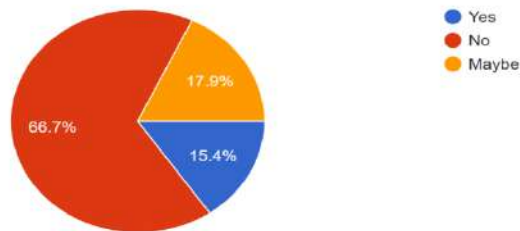
Figure 6.D: Organizations monitoring data for advertisements.

Is it right for the Cyber Crime department to monitor your online activity and location for the purpose of security?
78 responses
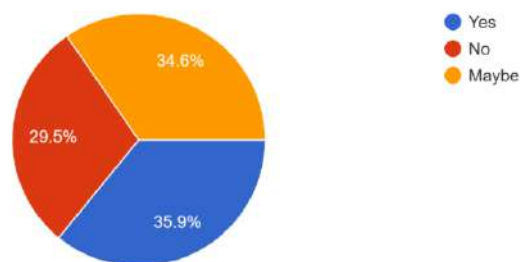
Figure 6.E: Monitoring by the Cyber Crime Department

If there is an allegation made against you and you've been asked to show all your online activity on the grounds of a legal warrant would you be willing to comply with the authorities?
78 responses
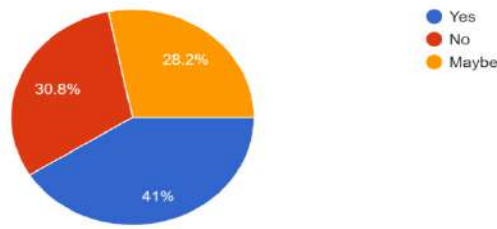
Figure 6.F: On being asked to share their activity for an investigation.

Do you think being anonymous online can be a threat to cyber security and give rise to more crimes via the internet?
78 responses
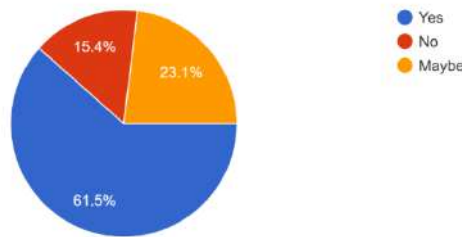
Figure 6.G: Anonymity can be a threat

As advertisements are an essential way through which the companies and developers support themselves. Would you rather have advertisements on regional basis or on the basis of your online activity?
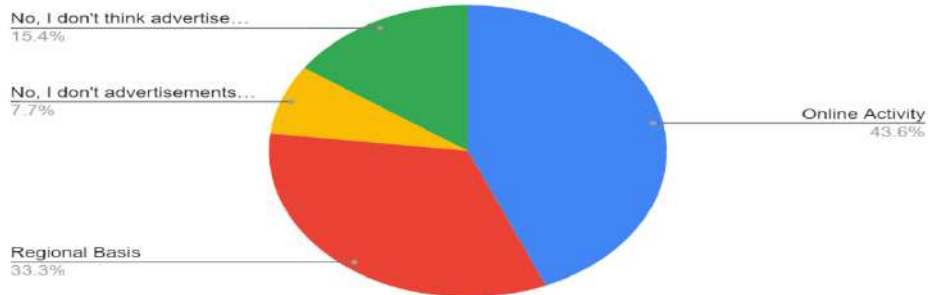
Figure 6.H: View on Advertisements and online activity.

As the number of cyber crimes or crimes via the internet is increasing it has become essential to monitor online activity. Therefore, would you rather have the cyber cell be able track you all the time whenever they want or only when they have a proper warrant?
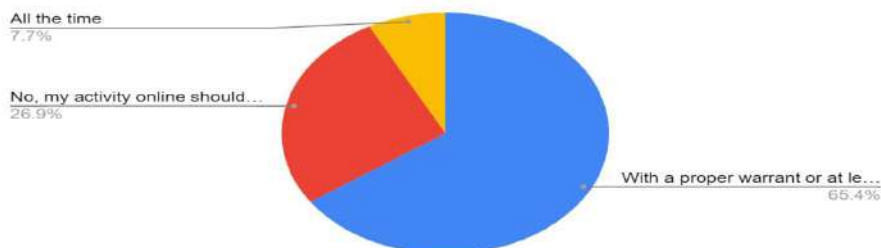
Figure 6.I: Being monitored by law enforcement.

(These were the options given 1. All the time 2. With a proper warrant or at least through prior intimidation 3. No, my activity online should only be accessible by me)
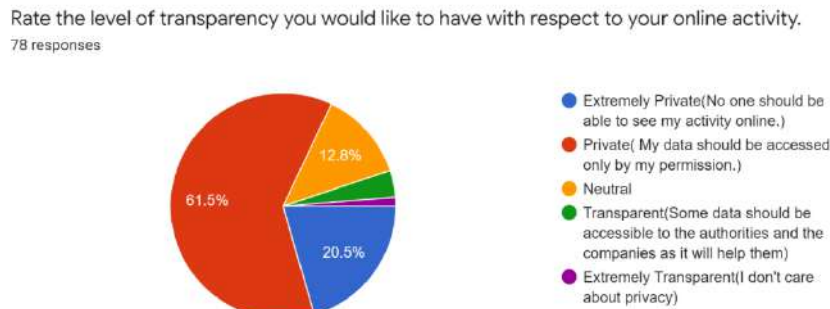
Figure 6.J: Level of transparency concerning their data. (3.8% percent said transparent and 1.3% said extremely transparent.)

Comments made by the participants of the survey:
A few selective comments made by the participants have been given below.

A. Privacy to data is important for everyone. Some people don't want to compromise their privacy on online media as there are cyber threats and scams. We should be well aware of what we are doing in the digital world.

B. As per me, cyber security is quite important but talking about being our online activity accessed continuously without intimidating before or something like that you strongly disagree**.**

C. Accessing other's online data or online activities should only be done with the respective user's consent and should not be used for any other negative activities, apart from what is mentioned in the terms and conditions.

D. Privacy does not exist in cyberspace. The various websites that offer varied services to their consumers fail to protect their data time and again.

E. People's phones should only be breached to collect info when required & necessary by the respective intelligence or law enforcers protecting their land & mass.

RESULTS

As it is evident from the various arguments presented above and the survey conducted privacy is extremely important for many but even more important than that is cyber security (figures 6.B and 6.C). The survey also showed the same. According to the Article 12 of the Universal Declaration of Human Rights Act, 1948, which state as follows: "No one shall be subjected to arbitrary interference with his privacy, family, home or correspondence, nor to attack upon his honor and reputation." right to privacy is a basic human right [11].

From figure 6.D and 6.H we can argue that the people are less likely or do not want to share their data with major corporates or organization which is providing them the service. This goes to show that these organizations should work on a more privacy-oriented model which will cater to the privacy need of the users. At the very least they should have a premium service option that will not record or steal user data. We can safely assume that people are willing to cooperate with law enforcement and the cybercrime department if they are under any investigation. The maximum number of participants of the survey are willing to share their online activity provided they permit it or they are given a prior intimation before they are marked for surveillance.

From figure 6.G most of the people who took the survey believe that being anonymous online can prove to be a threat to cyber security.

DISCUSSION

It would not wrong to say that privacy comes under a very gray area of study when spoken by keeping cyber security in mind. There is compelling evidence that dictates that law enforcement and cyber cell agencies are often able to stop crime before it takes place because they search for keywords in emails, monitor your social profiles, and keep an eye on your searches [7]. To some extent, this is where even people in our survey are ready to compromise. However, there needs to be a limit and that limit has to be defined. In the name of security, if everything we do online is scrutinized constantly, we may lose our freedom of speech, our chats might be leaked and sensitive data of business could be compromised. Whereas when it comes to the service providers or organizations which provide you with web services, search engines, chat applications, social sites,

etc. They must provide an alternative to the user which keeps the user data to the user itself and no one else can access it. They must implement security systems to avoid data leaks and data breaches. Even as users we must be aware of what we post online. We must learn to control how much access we give to others about our data. To do this, there are simple steps that we can do to ensure our privacy at our level. Read the terms and conditions of an app or service before accepting it. Do not give unnecessary access to applications that may not need that access, like giving location access to social sites. These apps can function without accessing your location. So, there is no harm in not permitting them to access. Do not register on unknown sites or sites that seem to be dangerous or unauthorized. Make your transaction only through secured payment gateways. These are the basic steps. Do not save your credit card, debit card, UPI details on your browser, or any application for future use. There are many other ways we can control our privacy on our end.

CONCLUSION

In this paper, an elaborative argument was made considering both the good and bad aspects of online privacy. As mentioned in this paper, it's difficult to draw a decisive line between user privacy and security. The key is to find the balance and only monitor what is extremely essential. It is difficult to set the standards, yet it is essential to do so to protect human rights. We need to do whatever is in our power to stop our data from being compromised. As the new age is dawning, we can hope for better rules and better services that ensure that our data is not leaked.

ACKNOWLEDGMENT

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PEOPLE'S PERCEPTION ON DEPRESSION IN WOMEN DURING COVID-19

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ABSTRACT
The covid-19 pandemic has had a massive impact on women's mental health. Therefore, monitoring and oversight of women's intellectual fitness all through crises such as a pandemic is a need. The purpose of this study is to investigate the existing research works and findings of the superiority of pressure, anxiety, and depression in women at some stage in the covid-19 pandemic.

Keywords: Women, Covid-19, Depression

INTRODUCTION
Covid-19 had hit the world in March 2020 it became a global pandemic, it has affected socio-economic, and political lifestyles all over the globe. Special reference to India, it turned out that many of the women had been facing numerous troubles with their mental health. We don't deny the fact that men didn't face problems during the pandemic but women had lots of responsibilities to fulfill and that is why it was faced by them a lot. Covid-19 took a toll on women's life completely, especially where health is concerned. The covid-19 pandemic has affected women more profoundly than men in several areas, both at the workplace and at home with an increased workload due to lockdown and quarantine measures and also fulfilling the family needs. Among the women, they were productive and domestic.

According to (Maryam Aldossari, 2020) women keep shouldering a majority of home tasks and childcare responsibilities notwithstanding improved women's participation in complete-time paid employment. Societal gender expectations, wherein home responsibilities are nonetheless visible because the number one maintenance of women, create extreme pressures on working women to stabilize domestic and work commitments. Talking about the working women, workplace burnout was expected as work overload due to this they experienced emotional and physical exhaustion, anxiety, and unproductiveness.

The census shows us that women have gone through a lot of problems. Still to understand in a better way we need to understand people's perspectives on Depression in women during Covid 19.

OBJECTIVES
The objectives for the research are as follows:

1. To understand the perspective of people towards depression in women 2. To comprehend why depression took place

3. To perceive what measures were taken and how they can be prevented

RESEARCH METHODOLOGY
In the research both primary as well as secondary data collection methods were employed for the data collection. The qualitative data technique was used.

A well-structured questionnaire was prepared which had open-ended as well as closed-ended questions.

To check the questionnaire's result 10 samples were collected as a pilot study, after that changes were made in the questionnaire. Apart from the questionnaire review of the literature was also done on pandemics, depression, and women.

The questionnaire was administered by 133 respondents. Data from various magazines and journals were also used for the research.

LITERATURE REVIEW
According to (Tom Farrell, 2020) survey revealed that there was a high ratio of anxiety and depression symptoms seen in women during the pandemic and was not related due to their workload. Symptoms that can be seen in women during depression are anxiety, apathy, insomnia, mood swings, sadness, and many more. The impact of social isolation and loneliness along with the worries about risks of the infection spreading and its economic fallout would have an effect on the mental health of the population. Indeed, increased mental health morbidity including anxiety and depression, for the same has been reported previously with fears arising from the SARS outbreak. According to (Wijngaarden-Cremers, 2020) the economic crisis is gradually increasing and as a result, mental health issues are likely to grow rapidly. It is also reported that more than one-half of women

are in denial for treatment of depression while 41% take depression as an embarrassment or shame to go for treatment. According to (Albert) the female: male ratio of global disability from major depression remained unchanged at 1.7:1. Although differences in socioeconomic factors, including abuse, education, and income, may impact the higher rate of depression in women.

It is also seen that the services provided to the women by the government i.e free counseling for mental health was not known to many as a result they had to face the problems all by themselves and were not able to communicate. With the help of the survey, it was also seen that women choose not to go -to the therapist for their mental illness because of fear of being judged. About 84.6% of people were not aware of KIRAN (a government free counselling center started for women during a pandemic) Government has set up a toll-free number (1800- 599-0019) to encourage people to reach out for mental health help.

According to (Agarwal, 2020) It offered mental health rehabilitation services such as early screening, first-aid, psychological support and many other services. It also provides first stage counseling, advice, and also refers counselors for the same. The helpline is available in 13 languages, it is operated by 75 professionals from 25 helpline centers. Of these, eight are national institutes, 14 are composite regional mental health centers and three are regional centers.

ANALYSIS:

The questionnaire was filled by males (20.3%) and females (79.9%). The finding is of the research are as follows:

Is long working hours one of the reasons for depression among women?
133 responses
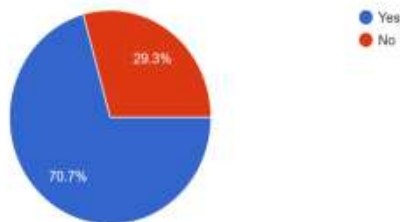
Did you know 38% of women suffered from mental health problems during Covid-19
129 responses
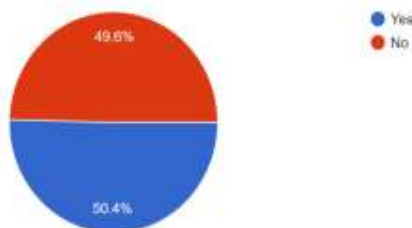
It was also witnessed by the counselors that anxiety-related problems like OCD (Obsessive Compulsive Disorders) have been increased. About 20-25% increase was seen since SARS CoV break out.

Is long working hours one of the reasons for depression among women?
133 responses
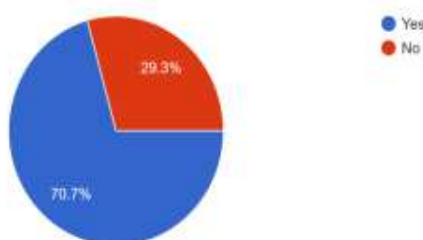
Are you aware about KIRAN a government free counseling center started for women in pandemic?
133 responses

- Yes
- No

84.2%

15.8%
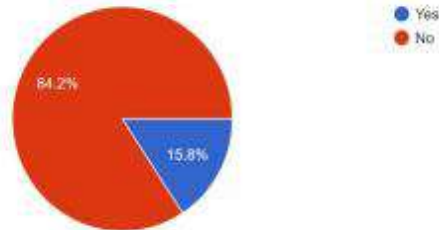
Do you think women suffering from depression felt the need to go to a therapist but chose not to due to fear of being judged?
133 responses

- Yes
- No
- Maybe

39.1%

9%

51.9%
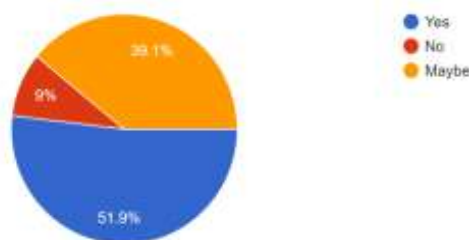
CONCLUSION

Covid-19 was a global pandemic. Due to the mental stress, it was very expected that people may experience anxiety, depression, or other mental illness. Mental illness is underdiagnosed by doctors. Much less than 1/2 of those who meet diagnostic criteria for mental issues are diagnosed via medical doctors. Around one in seven human beings are experiencing mental illness around the world. Approximately one in eight girls are maximum possible to revel in despair for their entire lifetime. It is rightly said in (Mental Health America, 2022) that depression can occur to any woman irrespective of age, race, or financial background.

Many people in our society have a negative belief when it comes to mental illness. Especially when it comes to women's mental health. Speaking of depression, it is almost twice more likely to affect women than men. Everyone has their own way to fight depression. When the survey was carried out it was seen that people experiencing depression had a unique way to fight through it. One of the respondents reported that they felt really good after meeting their old friends, while others kept themselves busy by cooking, painting, listening to their favorite music, reading books, and playing with their pets. One of the respondents also informed them that they had called the Vandrevala Foundation to seek help.

As shown in the senses there were only 15.8% of people that were aware of Kiran Organization which was shocking as in the metropolitan city like Mumbai, where most of the people are working and educated are expected to be aware of such initiative by the government. We hope that in the future women will seek the help of psychiatrists/counselors when experiencing depression or any other mental illness without fear of being judged and as a supportive society we won't judge them rather will support them and help them to realize they are not alone in this battle.

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AN EVALUATIVE STUDY OF SIP AS AN INVESTMENT AVENUE

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ABSTRACT

SIP (Systematic Investment Plan) is a segment of mutual fund where investor can invest fixed amount of money on regular intervals. Before mutual fund was an area of Investment Avenue for top investors for tax planning but after introduction of SIP the common people also can invest their money with shortest of Rs.500 per month. Based on analysis conducted the most of investor belong to group of 18 to 50 and where investors from 18 to 30 prefer little risky instrument and new investor from this age group mostly join SIP as an investment avenue. 30 to 50 prefer little safer investment avenue and we can SIP among these group too but above 50 we can see their investment avenue being mostly lying in less risky in nature. From this researcher concludes that SIP as an investment avenue is most cost efficient, better returns, less risky in nature and best for those investor who are new to this and can take a step in creation of investment. Researcher suggest that the mutual fund companies should conduct frequent sessions with those participants who are yet to invest and confused about investing, investor should also know what are their limit before jumping into any investment avenue with proper knowledge and little research.

Keywords: SIP, Mutual Funds, Returns, Risk.

INTRODUCTION

SIP (Systematic Investment Plan) is a type of investment method offered by Mutual Funds where the individual investor can invest a fixed amount of money in Mutual Funds on regular intervals like once a month or once a quarter depending upon preference. As per new regulations the initial amount for investment can be set to as low as Rs. 500 a month. The SIP function is very similar to recurring deposits in bank where you have the option to FD with monthly installments and once it hits maturity you are able to withdraw the whole with interest earned.

This type of Investment has gained lot of attention by Indian Mutual Fund Investors as it helps individual to invest in a disciplined manner without caring about market volatility, fluctuations and timings of market. Under this type of investment early bird gets lots of benefits compared to late comers, which simply means investor needs to start investing early to maximize his gains.

Types of SIPs

1. **Regular SIP**: Regular SIP is most common and simplest form of investment stratagem, under this investment investor sets a fixed amount of money at regular intervals. The SIP frequency can range from monthly, once in two months, quarterly, or half yearly, furthermore there are daily and weekly interval SIPs as well. However, one major drawback which makes it not highly recommended is the amount of investment cannot be changed during the tenure of the investment, For e.g. If the amount 500 has been set at the start of SIP form 6 years during these 6 year the amount to paid will constant i.e., 500.

2. **Top-up SIP**: Top up SIP or Set up SIP it allows the investor to change the amount of investment periodically, many assets management provides this service to investor as it helps them to the get recurring investment and helps them create their fund size greater with the power of compounding. So mainly many investors look for those funds management company providing this facility. Under step up the investor have the option to step up their investment in multiples of Rs. 500 for e.g., If a person has been investing 10,000 in a mutual fund and if he opts for step up SIP scheme by 1,000 then next month 11000 will be deducted and so on

3. **Flexible SIP**: Under this type of SIP the investor is given flexibility to alter their investment amount it is also known as Flexi SIP or Flex SIP. Here one can intimate the fund house about change is investment amount but he has to do so a week before deduction for its applicability. This can be used based on financial condition of investor or market condition. When market is bearish, they can invest more amount and when its bullish they can reduce the investment amount

4. **Perpetual SIP**: While filling for SIP the investor needs to mention the time period of SIP if nothing is mentioned then the SIP becomes Perpetual SIP. Under circumstances of when the investors tenure of SIP is

about to end and if he wishes to continue further without withdrawing then it will keep on continuing until the investor wishes to not carry it any further.

5. **Trigger SIP**: This mainly used by sound investor who knows well around about it. Under this type of SIP, it is very important to know when to take buy and sell positions, here investor set their purchase date and redeem date for the event of any favorable conditions like good market event, or an index level, Nav of fund, Capital appreciation or depreciation. So, this type of investment need knack of all in and out and very good experience with such dealing.

6. **SIP with Insurance**: Here few assets management company offer insurance against the holdings for the funds of longer holding. The initial cover is ten times the first SIP and it keeps on increasing with time. This feature is only available for Equity mutual Funds and this is a form of add on and doesn't impact anyway on SIP

7. **Multi SIP**: It allows investor to start the investment in various scheme fund provided by fund house via single instrument which helps investors to diversify their portfolio. Furthermore, it reduces the number of paper work as under single form and payment instruction they can get started.

Calculation of SIP
The calculation of SIP return can be done with the help of SIP calculator. It is an online tool that helps to calculate the return investor would gain on SIP investments. It can also help with deciding the initial value of investment for sum of amount predetermined under set tenure. It provides a roadmap to achieve your financial goals.

SIP calculator generally has three input boxes

1. **Monthly Invest amount**

2. **Investment Period**

3. **Expected Annual Returns**

For you to know your returns on investment you have to enter monthly investment amount you wish to enter, then set an investment period and based on your preference select the expected rate of returns which calculator will automatically give out your desired amount of return or earnings at the end of tenure. Here monthly investment amount has the minimum amount limit set to 500 and maximum any amount of your preference. In Investment period it is generally suggested to keep more than 5 years for good returns and lastly rate of interest maximum set is 15 percent as most of fund companies have their return range between 10 to 15 percent only and this value is basically provided by fund companies based on their past performances.

Assuming an investor wish to invest 15000 per month for 12 years and the expected rate of return is 10 percent so you need to input these values accordingly in above mentioned boxes and calculator gives investor the total accumulation of funds.

Under this case investor's invested amount results to 21, 60,000 and accumulated funds amount to 41, 81,123 almost resulting investor double returns

LITERATURE REVIEW
Anand Ladah CFA, CA, CFP, LL. B, 11 April 2021, shares his view on SIP investment and its suitability to which group of people it suits, he compared sip with bamboo tree where the normal bamboo takes 5 years and 3 months where bamboo tree height is stunted even at the end of 5 years with height of 2 ft approximately, where it tries to grow it, root making it stronger and in last three month the bamboo reaches its height to full similarly in SIP its building its fund which is compared with roots and returns which is received after 5 years is compared with height of bamboo tree. The suitability of SIP is to those investors who are ready to wait for over 6 years minimum.

Pozen, Robert C., Hamacher, Theresa, (author), mentioned in their book about ethics of funds, alternatives for mutual funds prospectus issued details and types of prospectuses given. They have thoroughly mentioned all the expenses incurred for managing of funds and also stock research done for fund management and detailed explanation of equity fund, bond funds, money market funds and trading based fund management.

RESEARCH METHODOLOGY:
OBJECTIVES
1. To Study SIP as an investment avenue in India.

2. To analyze preference and awareness of investors in SIP.

3. To have a comparative analysis of SIP with other Mutual Funds investing options.

4. To analyze the overall performance of SIP as an investment alternative.

5. To offer suggestion to the industry based on study of SIP as an investment.

SCOPE OF STUDY
1. The types of schemes available under SIP.

2. SIP and its increasing popularity.

3. The views of people on mutual funds after introduction of SIP.

4. Risks under SIP.

5. How long does the SIP takes to give good return.

6. Mutual Funds schemes and its benefits.

7. Comparison between 2 top Indian Mutual Fund Companies and their comparison

LIMITATIONS
1. The sample size collection cannot be collected aggregately due to vast population size.

2. Data collection of single type of Mutual fund scheme is not possible due to vast number of preferences on investment and their risk suitability, so categorization on individual basis is difficult

3. The analysis can be vague due limited number of responses and it may differ slightly from previous research done.

4. There have been many changes since post covid and similarly subject perception towards Mutual funds compared to pre covid and this might cause huge shift of behavior change related to investment in mutual fund if cross checked with previous statistics before covid era.

SIGNIFICANCE
1. The study is important to group of investors who are yet to invest in any sort of Investment Avenue.

2. The study will help new investor to understand the functioning of SIP in Mutual fund in simple language.

3. This study will be helpful for asset Management Company to understand the investor awareness and which target of group should they approach with related schemes.

4. This study can be new door towards various investment options available in the market.

SAMPLE SIZE
The primary data was collected through Google form which contains 12 questions for evaluative study of SIP, total 100 people has responded. The questions were related to Percentage of savings, Percentage of investments, Investment Avenue preferred, Knowledge about Mutual Fund and SIP.

DATA COLLECTION
Researcher has referred certain sites, news article, magazines, books, for the collection of secondary data was collected through google forms.

Data analysis: Analysis is done using Tables, pie charts and Graphs.

Data Analysis, Interpretation and Presentation:
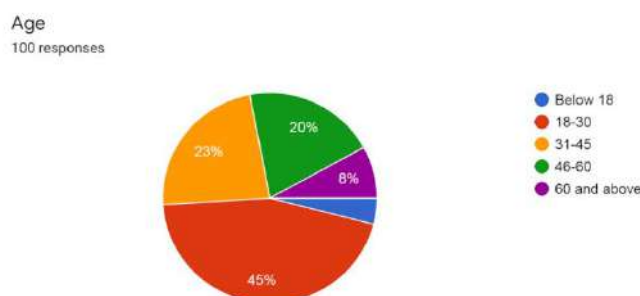
The age of respondent who are inclined towards investment with proper access to technical support fall in range from 18 – 30, 31-45. The age group of 46-60, have average access to it. Lastly 60 and above and below 18 are lowest among all.

Occupation
100 responses
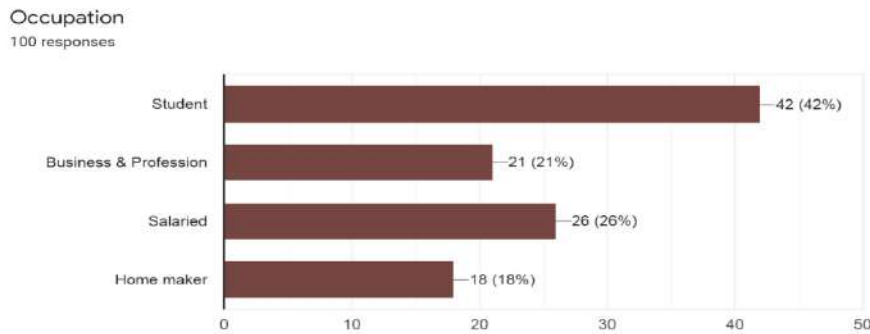
My respondent mostly belongs to group students second being salaried third occupied by business and profession and lastly home maker. Out of 100, 42 being student, 26 being salaried, 21 being business and profession and lastly 18 being homemaker.

Annual Income in case of students please select parents/guardian
100 responses
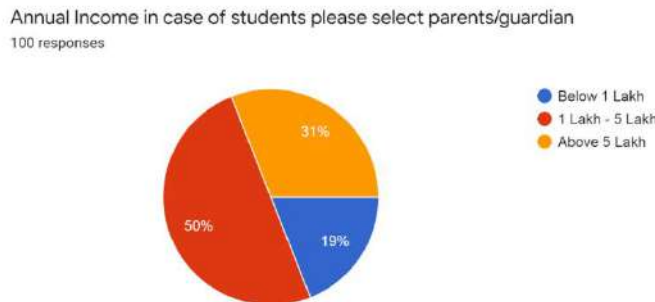
In the above graph it showing annual income of my respondent with most income lying between 1 lakh to 5 lakh having 50% of total. 31%is held by people with income of above 5 lakh and least being respondent below 1 lakh holding 19% of whole graph.

How much percentage do you save monthly
100 responses
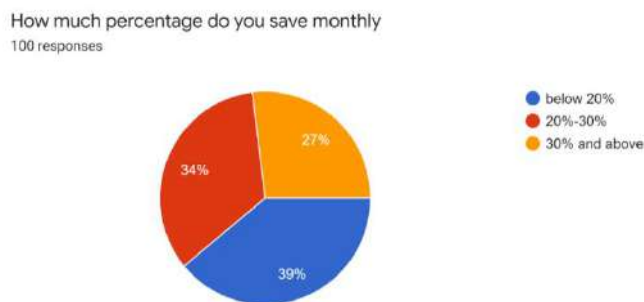
The following graph shows percentage of savings made of which below 20% is the most at 39% of the whole graph, 20%-30% being at 34% and lastly 30% and above being the least of all at 27%.

Out of your savings how much do you invest
100 responses

The above graph represents percentage of investment made out of savings 46% being below 30%, 41 to 50% holding 28% of graph, 30% and 40% being 16% and finally above 50% being only 10% out of 100.

The reason for investing
100 responses
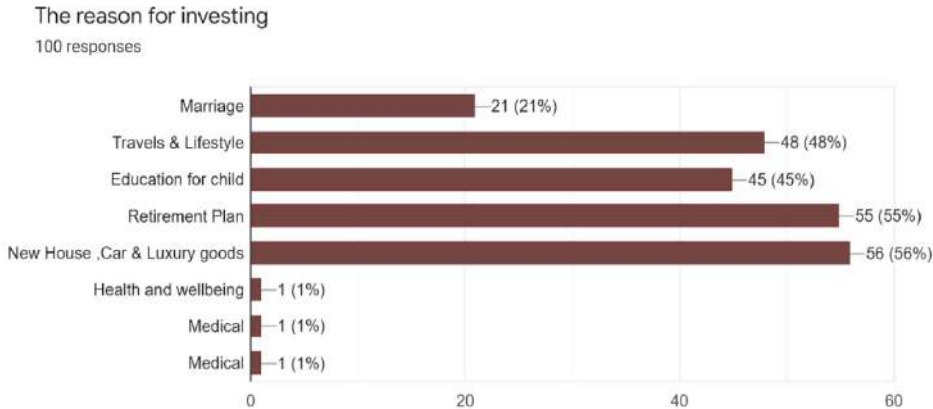
The above graph shows the preference for which they plan to invest where new house, Car & Luxury goods being up to 56%, Retirement plan having 55%, Travel & Lifestyle being 48%, Education for child at 45%, Marriage lying at 21% and lastly medical, Health and wellbeing at 3%.

Which type of investment is preferred by you
100 responses
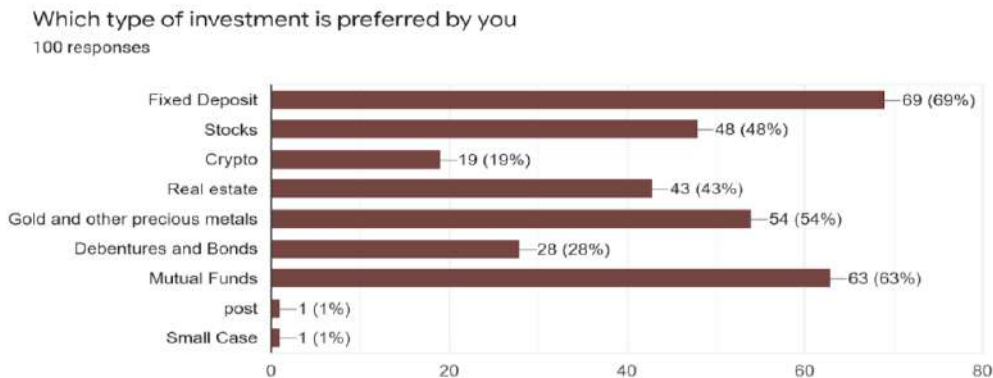
The above graph represents investment preference with fixed deposit at 69%, Mutual Fund being at 63%, gold and other precious metals being up to 54%, Stocks at 48%, Real Estate being at 43%, Crypto at 19% Post and small case being 1% each.

Have you ever heard of mutual fund and ever invested in them, If yes please select the reason why from below checkbox and if no please select reason for same
100 responses
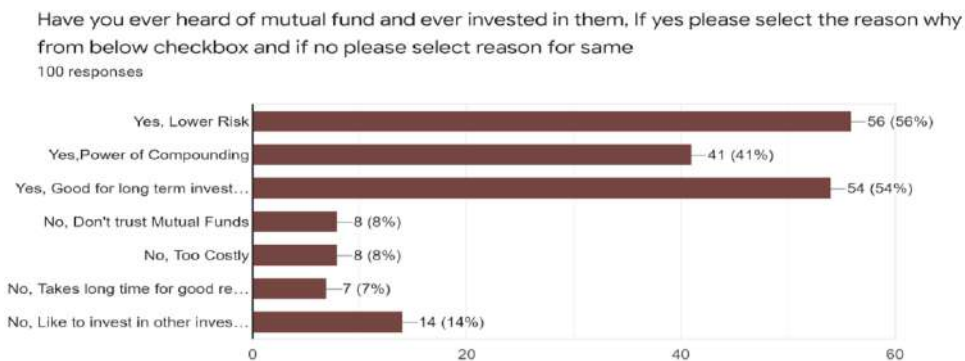
In above graph the most of poll is inclined towards yes where lower risk is a factor which has the 56% acceptance, 54% for good in long term investment, and 41% for power of compounding. Under No respondent poll is inclined to like to invest in other investment avenue at 14%, Not trusting Mutual fund and too costly both share 8% and finally takes long time for good return at 7%.

Ever heard of SIP Investment
100 responses
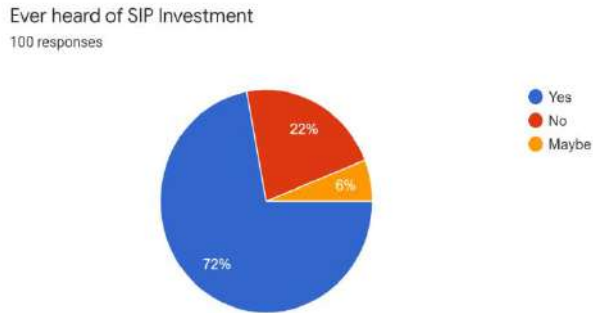
The most of respondent have answered yes for knowing SIP which is at 72%, no is at 22% and maybe lies in 6%.

If your answer for Knowing SIP investment was yes then What do you look in the fund before investing
81 responses
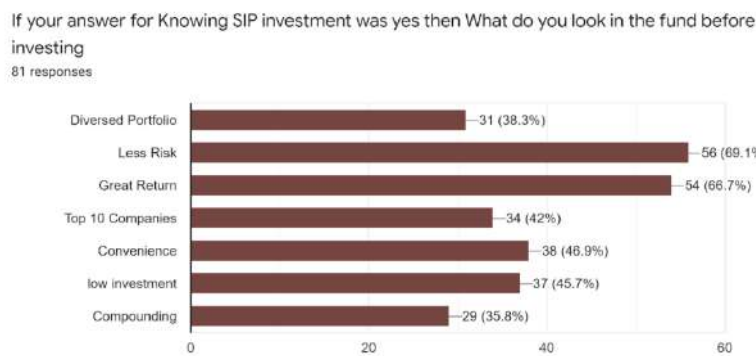
The above graph represents what does investor look in fund before investing where less risk has the most poll at 69.1%, Great Return at 66.7%, convenience being at 46.9%, Low investment lying at 45.7%, Top 10 companies at 42%, Diverse portfolio being at 38.3%, and compounding at 35.8%.

If your answer for knowing SIP investment was no then would you like to know scheme related to SIP and its benefits
56 responses
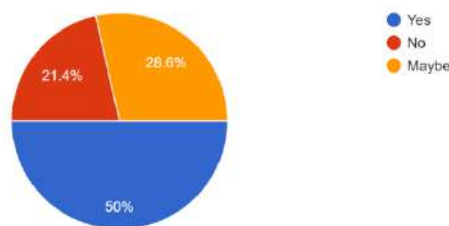
The graph shows knowing SIP investment was no then would you like to know scheme related to SIP and its benefits where 50% is in support yes, 28.6% prefer maybe and no at 21.4%.

Only for those who have invested in Mutual Fund please rate the satisfaction you got from this investment avenue where 3 being highest 2 being average and 1 being poor
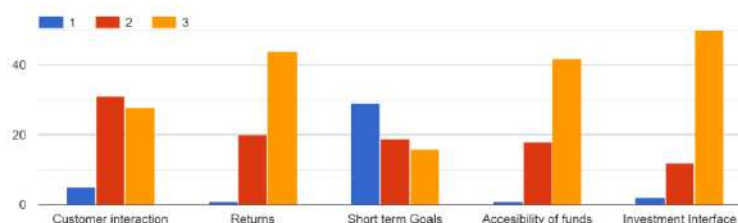
Above graph represents rating provided by respondent based on their satisfaction received after availing mutual fund service where customer interaction is rated average, returns are rated for highest, short-term goals falls under lowest rating, accessibility of funds and investment interface is at highest rating.

CONCLUSION

SIP as an investment avenue has gained a lot of popularity in India territory with successfully making a habit of investment for every individual who wish to invest but lacks the knowledge of market. The SIP is a tool introduced by Mutual fund focused specifically with group of low income also with its scheme starting from Rs. 500 per month with nominal interest rate added with compounding factor and fund managed by professional giving a taste of diversification in asset allocation. The investor who are about to invest in SIP should check beforehand all documents and scheme related to it and must know the types of SIPS available and select the most appropriate one according to their need only. Introduction of SIP as helped a lot to those group of income earner who can't afford lumpsum investment mainly focused for students, salaried, homemaker, and small enterprises, etc. Now in SIP the most important factor is time compared to money as investor who start early gains maximum benefit compared to late comers despite investing more money, similarly more you hold more you gain.

SUGGESTIONS

1. The mutual fund companies should conduct frequent sessions with those participants who are yet to invest and confused about investing.

2. The companies should mention the benefits associated with keeping long term investment and risk involved.

3. Asset Management companies should follow the policy of transparency while dealing with future investors and existing investors.

4. Updates regarding upcoming risk which can be avoided by investors should be informed to investors in advance.

5. Investors should consult their financial advisors before starting the investment.

6. Before going for SIP investment, it is necessary to check whether the type of SIP which has been selected falls under flexible SIP in nature which can change according to availability of finance backed by willingness to pay for it.

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COVID-19 AND BUSINESS TRANSFORMATION

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ABSTRACT

Business is as old as man himself .Business was just buying and selling activity but in this advance technology era business is not just bounded in buying walking activity especially after corona virus. Dynamic would be second name for business dynamic refer to continue change.when we use these two words simultaneously it is "Business Dynamic" something related to change in business. Year 2020-21was an unforgettable year for everyone2020-21 observed as massive shifting from traditional to online market. As many retailer are changing their business model and going online,as we are newly introduce with new family member of corona virus "Omiron' this my add some new business faces.

Quote: The best way to predict the future is to create it by Peter Druker.

Don't criticise what you can't understand by Bob Dylan.

Keywords: Business changes, lockdown dual effect, Inconsistancy, innovation.

INTRODUCTION:

Many activities are performed on the earth from birth to composing.

Eating, sleeping, walking, buying, bargaining, etc are our daily routine. Also one of the most important activity is business it is is not only about trade &commerce business is eeverywhere.

Business is what? just buying and selling of goods and services for profit motive No business has expand himself especially in 2020-21 let'see how!

Body:

Business is ralated to productoin and distribution of goodsd&services.Before e-commerce and advance technology business were limited in geographic area with limited customer But after e-commerce and technology business have reach globally. In India on 27 January2020 when we firstly know the word 'corona'This disease where spread like a forest fire so that the government has to announce lockdown this world has changed the lifethe style of the style of Indiansr we can say that lockdown play an important role for increasing online business activities let's elaborate theLet's elaborate this sentence during this crisis every industries try to Maximise their profit some businesses choose ethical way(customer satisfaction) some business choose unethical way(Low quality product at high price)This global crisis have the continue impact on economic. Start during this crisis customers behaviour were also changed. in 202year a arise in online shopping, focus on customer satisfaction(Customer will satisfy only when customer expectation and product performance match),Social welfare,growth in service sector, corporate social responsibilities was increased etc.

Questions you should ask yourself

1-Does technology and phones were invented to save our time?

2-Does business changes actually helpful for a middle class man?

3-Do I know disadvantages of modern technology?

Advantages of E-Commerce and Advance Technology:

1-Faster buying /selling activities

2-Available 24/7

3-More reach to customer there is no geographical limitations

4-Low operational cost and better quality of goods and services

5-No need of physical company setups

6-easy to start and shut down

Methodology:

Data and information is collect by secondary source.

CONCLUSION

Business changes an innovation bring Unbelievablevabl changes in this new dynamic world. these advancement is result of great imagination of experts.The pandemic acceleratedExisting trends in remote work ,e -commerce and automation with up to 25% more workers than previously estimated potentially needed to switch occupations play play.

Albert Einstein once said Logic will get you from A to B imagination will take you everywhere.

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- Book: Johnson,Mascarenhas,Chatterjee's book Business Economic.

- Michael vaz ,Aurora Vaz's book Commerce-1

- Link: https://www.indianretailer.com

ANALYSING EMPLOYEE ENGAGEMENT USING TWITTER ANALYTICS

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ABSTRACT

Engagement is the dedication, desire of the employees, and operational leadership skills with support from the top management to the employees. Engaged employees are always connected or engaged themselves with their job and they know their responsibilities and organizational objectives. If the employee put his /her determination to take the company next level also. Every organization is thinking that engagement towards the job increases means the productivity also increases. Employee engagement is correlated with other institutes/company-related perceptions like job satisfaction, job involvement, work environment, and fatigue. Most of the companies are using a traditional method of collecting survey questionnaires and analyzing them using descriptive methods. Instead of that in this research, the author is using real-time unstructured data from Twitter to predict employee engagement tweets. The main focus of the study is to apply unsupervised machine-learning algorithms like text mining and sentiment analysis to find hidden patterns. To analyse these tweets the author has used the R programming language also. The author has collected the tweets from Twitter from employ engagement (2.12.2013 to 5.1.2022)and analysed how employees are engaged in their work during the covid period and before the covid period. From the study, the author can understand a meaningful conclusion on engaged and disengaged employees and their feelings about the company. Social communication platforms like Facebook, Twitter, YouTube, Instagram data has been used in many places in our daily life, but this input data is not analysed and used properly. This research will help HR managers and decision-makers to understand individual's depression level and their health issues also. Real-time data helps decision-makers to understand employees' problems immediately and they can take preventive action fast and accurately.

Keywords: Social media contents/tweets, Text analysis, sentiment analysis, machine learning techniques, hashtag employee engagement.

INTRODUCTION

In today's uncertain covid period, employee engagement is playing an important role for businesses not good enough to bring a strong client experience. Employee engagement replicates the connection between an organization's goal line and its employees. An "engaged employee" is fully dedicated and keen on the company's goal and attention. When employees are passionate about their work, they often take personal inventiveness to positively influence the organization's name. It has been shown that" there is a strong correlation between employee engagement and organizational productivity metrics such as improved performance, higher levels of customer satisfaction, better employee retention, and lower absenteeism rates".. These different studies leave little room for doubt about the importance of employee engagement. The challenge is how to measure it effectively. Organizations usually use reviews to measure engagement. There are two major concerns with reviews. First, it is very time-consuming to run surveys. Second, it has been reported that reviews are not usually accurate since they are often related to a specific time of the year, and more importantly, may not reveal an employee's true opinions. Job satisfaction and job engagement both are considered to be a person's emotions of happiness on the job. It acts as a motivational factor to work. The term job engagement is the bond between a person may be a low-level worker or a high-level blue-collar worker and the employer. This research focuses on text mining and sentiment techniques to apply real-time data to measure how job engagement impacts their stress level or their behaviors. Presently traditional statistical methods are used and much research has been done on job engagement. Measuring job engagement research done on all levels of employee's in all areas and the research has happened in all countries also. But very few researchers have used data mining techniques in the human resource department. **Bhatla 2011** said Employee engagement has emerged in all areas and sectors to understand employee commitment and involvement in the job**. Khan 2013** said in his latest research the accomplishment or collapse of the organization is highly dependent upon the engaged employees only. The smooth operation of the organization is mostly keeping the employee active and engaged in the job. Engagement is mostly used in the service sector not in the manufacturing sector nowadays**. Heaney 2010** find out in his research the working environment and their co-workers are good in the company the employees are most of the time engaged in their jobs and the productivity is also high**. Kumar and Swetha 2011** find out in their study to improve the creation and innovation in the business workplace should be supportive to the engaged employee. **Wilson, 2009; Markos & Sridevi, 2010** said in their research withholding every employee's talent in the organization is keeping an asset in the bank. Occupied employees are not only

happy in their job their knowledge is converted into industry's profitability. **Larkin, 2009; Lee, 2012, said that to** find out a technique that is helpful to handle the insecurity of the business environment. Many researchers have applied only statistical tools and scales to understand the job engagement towards their job. Fitz-enz 2010 discussed in his research work the five-step value ladder measurement model. **By 2017 CIPD**, conclude that "employees who have good quality jobs and are managed well, will not only be happier, healthier and more fulfilled but are also more likely to drive productivity, better product or services, and innovation".**Bersin by Deloitte,2013** in his research said "from operational reporting to advanced reporting, predictive and prescriptive analytics "used.

How can ML and AI support employee engagement:

Artificial intelligence and machine learning models increase the "employee experience with the recruitment process and continue through offboarding".According to AnayticsTraining.com report, by using artificial intelligence organizations can " engage on-site and remote employees more effectively, provide continuous assistance and support to employees, improve learning and development activities and streamline conflict resolution."

Expected benefits and outcomes of AI application in HR:

Application of AI in HR	Examples of expected benefits	Examples of outcomes measures
Enhanced candidate experience	Useful for pre-hire Process monitoring	Applicant conversion rate can be measured.
	Better job seekers and job roles Can be analyzed	New hire process and productivity monitoring can be done.
Efficient and effective recruitment	An efficient ranking of job demands can be produced.	Skill shortages or unfilled vacancies are filled through analytics.
	Hire the right person at the right time very fast.	Less time is required to fill open spots.
	The accurate valuation of a multi-talented candidate can be chosen.	The selection of candidates ratio is in a minor way.
	We can identify the best candidate.	A new hire policy can be adopted.
Enhanced motivation	Better executive care for their employees.	Employee retention
	Enhanced employee experience	Engagement pulse survey scores
Smarter compensation planning	Transparency in pay for employees	Compensation fulfillment survey scores
	Compensation budgets aligned with business strategy	Overpaid or underpaid workers count
Personalized learning	Accelerated employee skill acquisition	Matching with the skills gap
	Align employee skills with business strategy	Measuring the employee productivity
	Improve learning experience	Course enrollments and completion rates
Career development for all	Employee driven career management	Career satisfaction survey scores
	Employee clarity on opportunities	Number of internal job applications and movement
24/7/365 Employee support	Better informed and more productive employees via faster, more accurate answers to questions	Number of process violations
	Reduced number of support center staff	Labor costs

HR analytical tools:

- Sisense, Tableau, Power Bi, QLik:- For data visualization

- Orgvue:- For planning, analyzing, and monitoring the HR data

- BambooHR:- Onboarding and hiring process

- Sage-HR- Automate all HR processes and activities

- Picked:- Talent acquisition platform

- Oracle HR Analytics: All automation process

- Python, R, Excel:- Statistical analysis of HR data

- ViSier:- Workforce analytics

- CPLEX Optimizer:- tool for prescriptive analytics

- Fine report and SPSS- Advanced Excel analysis

Benefits of using HR analytics:
- Improves talent acquisition and employee experience

- Increase staff retention and productivity

- Prevents workplace misconduct- to detect the hidden areas

- Identifying the skill gaps from the team members and better training requirements identified

- Highly engaged workforce and reduce the attrition rate

- Machine learning predicts the hidden patterns

Types of workers:
Engaged employees are enthusiastic, committed, and give their productivity more in their work. An engaged employee is positive about his job and believes in the organization. The "engaged employee works enthusiastically and treats others to make things better". He can see the things/job at a bigger picture even "at a personal cost and be trusted". It goes beyond "the requirements of the job and identifies with the organization". The latest technology and other developments in his/her field to improve the organization's performance. A disengaged employee is having a lot of negative opinions of their workplace, a lack of commitment towards the work and responsibilities. It impacts the other employee's productivity. Barely engaged employees feel indifferent towards their job and workplace and lack motivation. Moderately engaged employees like their organization underperform and see only their improvement.

Source: https://www.ie.edu/insights/infographics/how-to-manage-the-four-types-of-workers/
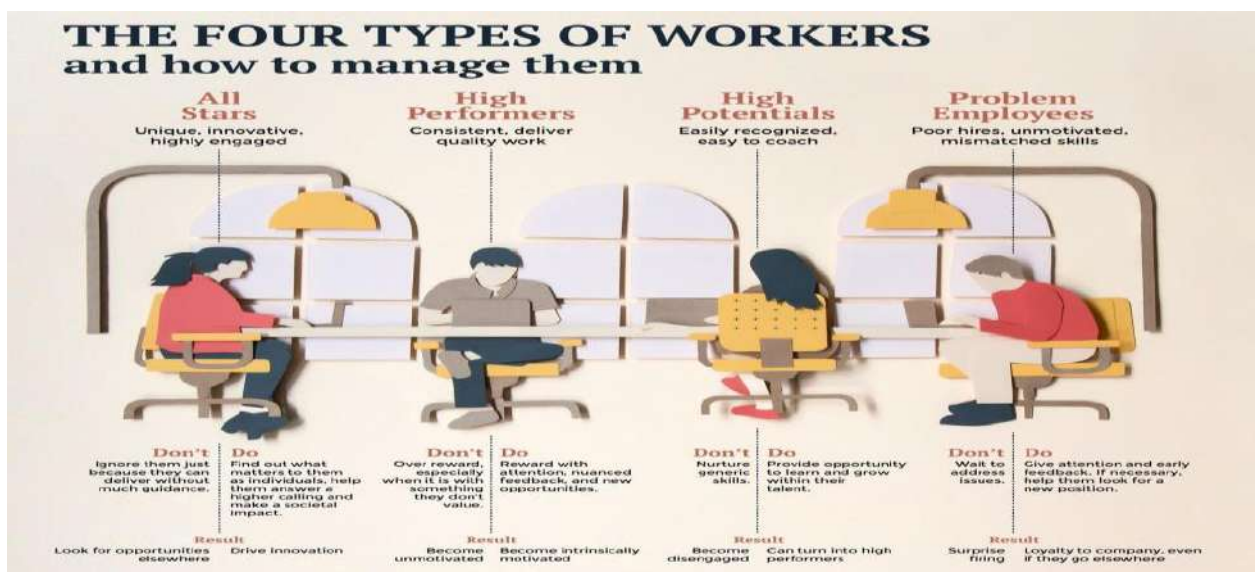
Employee experience in the context of change: Today HR analytics is not an alternative, it is a requirement. With the increased complexities of business, the importance of HR analytics will continue to rise. Realizing this HR managers today volunteer to accept the responsibilities even for financial issues, prefer to collaborate with other departments, interpret data with a holistic perspective, and involve in framing HR strategy in alignment

with the overall strategy of the organization. The predictive decision-making process "is more complete and capable to assess the decisional outcomes right in the beginning helping managers in calibrating their decisions". Descriptive analytics only helps the HR decision-makers to correlate the historical trends. Descriptive analytics can not prescribe hidden patterns.

Source: https://www.kincentric.com/insights/2020-trends-in-global-employee-engagement
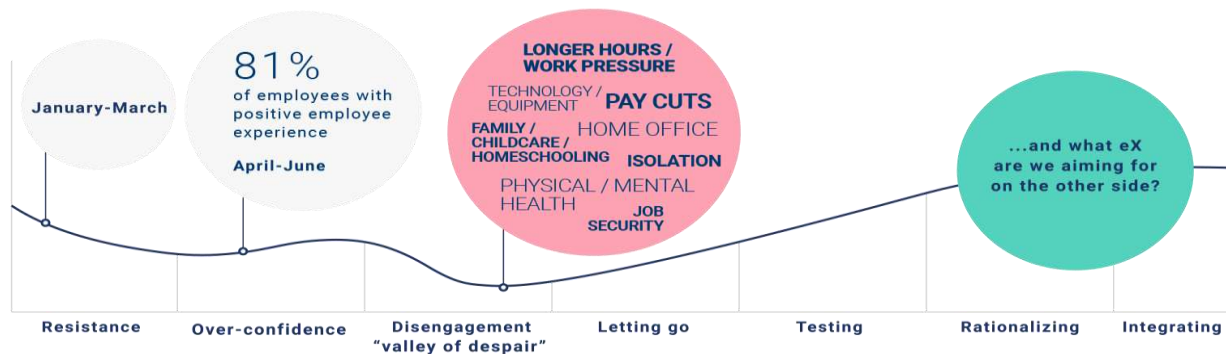
Descriptive/Correlational HR Decisions Analytics/Predictive Decisions

Basic details of the company:

- Number of years working with the company to predict no of years to continue

- CTC likely CTC of the person after 10 years

- Performance rate likely rate of absenteeism after five years

- The average rate of absenteeism training skill change training required after 5 years

It can help in identifying the strengths and weaknesses of the human resources activities.s identifying talent for future leadership roles. It can help in identifying future competency gaps and deciding strategies to overcome them. Can help organizations to become future-ready building the capabilities of people with critical skill sets, pacing with the change in technology and process. It can help in effective scenario planning. Can help organizations in assessing the attrition rate and can frame strategies in overcoming the same. It can develop a robust decision model for HR decision-making.

Purpose of the study: To use the machine learning technique in this study is to capture the level of employee engagement from his/her social activity using Twitter analytics on Twitter data to understand how HR managers use Twitter for employee engagement strategies. It will reflect the employee's views or sentiments about the organization. This machine learning, deep learning technique tries to connect the spot between social media and employee engagement.

Research question: Using social media analytics to learn about employee engagement of business and examining the employee engagement behavior of employees using Twitter data.

Data Collection: The gathering of tweets from Twitter was done using the R programming and TwitterR package. Tweets having @EmplyEngagement, Boston collected over 2013 to 5th Jan 2022. On this Twitter page, 5553 tweets and 7854 followers, and 3511 followings were there. The motivation of the research is to understand how to collect tweets from the Twitter page and apply the best sentiment analysis algorithm and text mining algorithm. Students should know how to get the API key and how to do the Twitter authentication and use the social media analytics algorithm in their domain areas. Once the model is developed this algorithm we can apply it in many domain areas.

Data pre-processing steps: Stemming of the documents and uncovering the white spaces have been done through the tm package. To get a proper understanding of the hidden patterns a set of tweets with only words that have relevance to the study can contribute to the analysis.

- Removing -Twitter handle
- Removing URLs
- Removing punctuations
- Removing handles
- Removing stop words and stemming.

Sentiment analysis methods: Sentiment analysis is working on natural language processing expressions and determining the emotional value of the texts and it classifies the text into positive, negative, and neutral. This algorithm is very useful in many domain areas to analyze movie reviews, tweet sentiment, news sentiment, social media sentiment, online food reviews sentiments, etc.

- **VADER:** Valence aware dictionary &sentiment reasoner is a" rule-based sentiment analyzer ".This algorithm uses lexical features like words are analyzed and labeled as positive, negative, and neutral. Vader algorithm gives e probability value of a given input word. The disadvantage of this algorithm is it only cares about the distinct word, and it ignores the context.

- **Flair:** It is working on the natural language processing algorithm and it provides various functions such as: "pre-trained sentiment analysis models, text embeddings, NER, and more".The drawback of this model: It is a pre-trained model for the IMDB dataset and it will not give proper output to the real-time tweets, Facebook data.

- **Textblob**: This algorithm works on the "python library and accesses different NLP tasks".This analyzer yields two properties to the sentences like polarity and subjectivity. Polarity value lies between +1 to -1.+1 means positive and -1 means negative polarity. Subjectivity value lies between 0 to 1. It considers the sentence value, not the word value.

- **Rule-based sentiment analysis**: This algorithm is a very simple and basic approach applied to the texts, not machine learning techniques like the text mining algorithm applied. It just classifies sad and happy texts classification. It is not very useful for Twitter analysis.

- **Word2Vec**: Word embedding models "map a word into vectors and find similar words will be closer to each other." Bag of words and term frequency-inverse document frequency algorithms and capture the "semantic meaning of words".Word2vec is working on two architectures like a continuous bag of words and skip-gram and it is a neural embedding model. **CBow**: Continous bag of words example: In this model "the hidden layers has the number of dimensions in which the current word needs to be represented at the output layer". Subsequent diagram displays as an example with "window of size 2 for predicting vector for word 'awesome' given a sentence 'Restaurant was awesome this time'".

Source: https://medium.com/swlh/sentiment-classification-using-word-embeddings-word2vec-aedf28fbb8ca
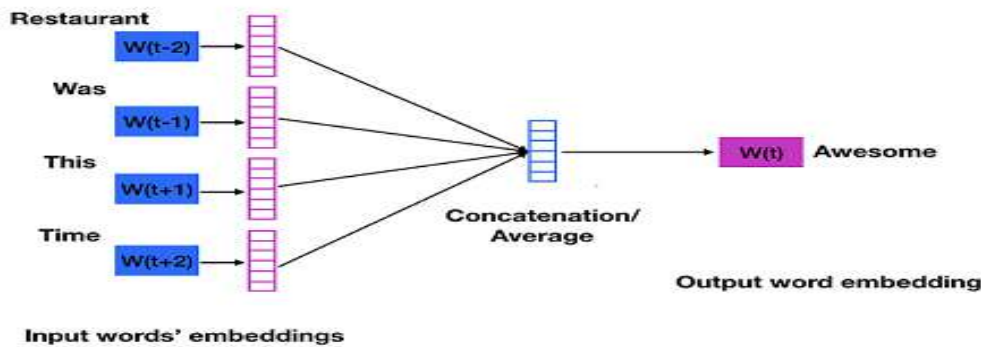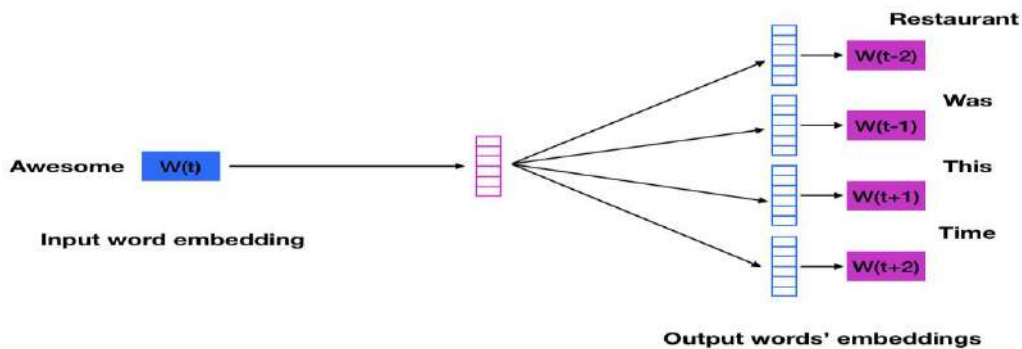
Skip-gram is the opposite function of a continuous bag of words. Here it predicts the embeddings for the nearby context words in the specific window given a current word. The input layer contains the current word and the output layer contains the context words.

N-Grams: It works in a sequence of words or characters and it is an advanced model for analyzing textual data. Here are two models like bigram and unigram. N-grams are universal in natural language processing and it works on naïve Bayes natural language processing algorithm. Ngrams play an important role in empowering machines to understand the context of the given text.

Strength and weakness of sentiment analysis:

Approach	Custom Machine Learning Models		Lexicon & Rule-Based Tool
	Naive Bayes DTM	**Word Embedding + LSTM Deep Learning**	**VADER**
Training Effort	Model is fast to train	Resource intensive and takes time	Pre-trained models are easy and quick to implement
Interpretability	Outputs are reasonably understandable	Difficult to interpret model outputs	Results are easy to understand
Strength	Custom models capture context of the text and are useful for domain-specific NLP tasks		• Less resource and computationally intensive • Doesn't suffer severely from a speed-performance tradeoff • VADER contains linguistic rules that go beyond what is captured in a typical document-term-matrix model
	• Computation is fast • Widely used for large-scale sentiment analysis • Retains context to a degree	• Has the potential to produce the most accurate results • Retains context of the text/corpus • Less effort for feature extraction when neural networks can learn important features	
Weakness	Supervised Machine Learning requires sufficient training data and feature extraction		• Lexicon is difficult to create and validate • Susceptible to misspellings, nomenclatures, sarcasm, irony, jargons, and grammatical mistakes as they are not recognized by the lexicon • Ignores context of the text • Suitability issues across domains
	• Naïve Bayes models rely on complete and representative data set • Strong independence assumption in the model	• Most expensive to train and operate	

Source: https://towardsdatascience.com/sentiment-analysis-comparing-3-common-approaches-naive-bayes-lstm-and-vader-ab561f834f89

The algorithm used in the study Text mining Process:

- Install all libraries then download packages tm, corpus, ggplot, a color brewer in the RAM.

- All text or unstructured document is converted into corpus file.

- Special characters, stop words, end words, and white spaces are removed from the text in the pre-processing phase.

- The text file is converted into matrix format then framed into a transpose matrix.

- The highest frequency or important words are measured from the word cloud

Text mining framework:

Unstructured data is analyzed through text mining technology. It is processed by two methods namely entity recognition and relation extraction. In the information retrieval phase, all the text documents are stored and all keywords are matched by search engines.

Topic modeling: In Natural language understanding/processing, to extract unique words/meaning from the documents or tweets, we should follow popular techniques like latent semantic analysis, probabilistic latent semantic analysis, latent Dirichlet allocation, and LDA in deep learning. Latent semantic analysis is an old and basic technique to split the words into sentences, then paragraphs into documents. Recognizing and extracting the important topic from a collection of documents /tweets is called topic modeling. Term frequency-inverse document frequency allocates a weight for each term xi in document i as follows. Using term vectors and document vectors, we can evaluate the cosine similarity of different documents, different words, and different terms.

$$w_{i,j} = tf_{i,j} \times \log \frac{N}{df_j}$$

Source: https://medium.com/nanonets/topic-modeling-with-lsa-psla-lda-and-lda2vec-555ff65b0b05
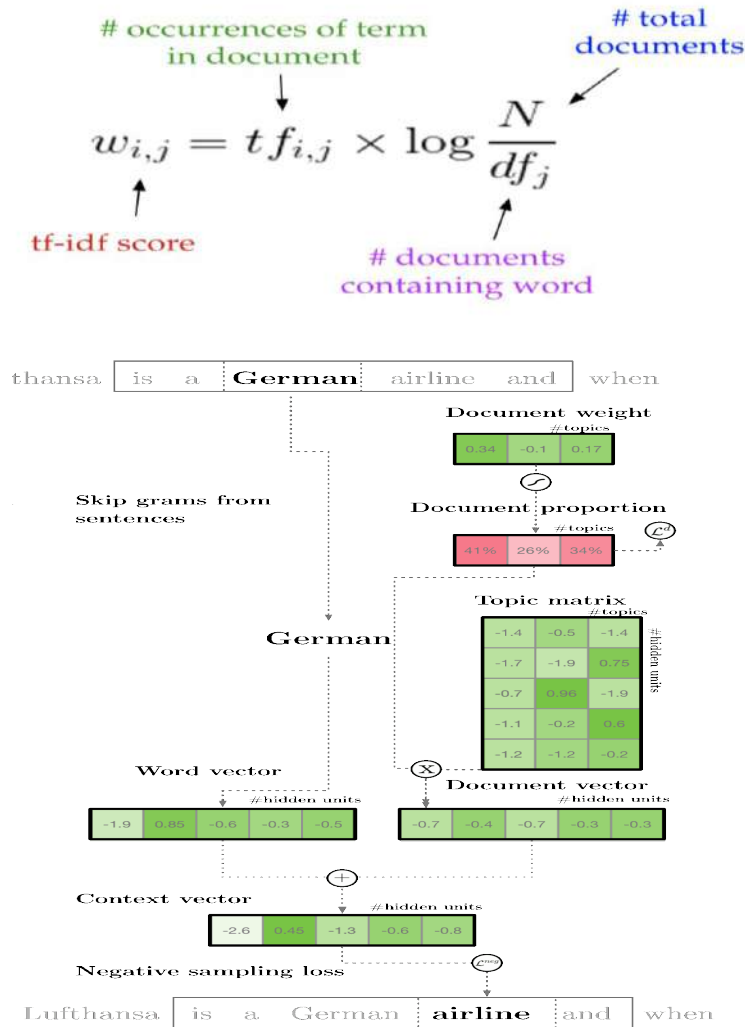
Stemming:

Stemming means the root word is reduced to the base word. It normalizes the sentences and gives them better words to understand. For example, the root word is like, liked, likes is liking,lik, likely are stemmed into like. Toget back the information from search engines and defining domain terms are the application of stemming algorithm.

Porter stemmer algorithm: This algorithm is removing unwanted English stop words like is, was, as, too, on, of, etc to make the words simpler and make sense to the analysis. Using this porter stemming algorithm we can convert the given tweets words to output stem words. To make the output shorter and same base meaning. To run this algorithm we should import nltk library and nltk. stem then run the tweets through this algorithm.

Lancaster stemming algorithm: It is an old technique and to run this we should import the nltk lancaster stemmer library.

Regular expression stemming algorithm: To run this algorithm we should import nltk Regexpstemmer library.It removes the prefix and suffix that matches the expression.

Snowball stemming algorithm: To run this algorithm we should import nltk snowball stemmer library. This algorithm supports 15 languages other than English.

Sentiment analysis Process:

- Install library files twitter, sentiment, plyr

- To classify the emotions of the document/text using Bayes' algorithm

- Classify the polarities like positive, negative, and neutral

- Get the polarity results

Twitter Algorithm:

Steps: create twitter app to use our twitter data by calling twitter APIs

- Create twitter account and login to https://dev.twitter.com/ Source: From the Author's social media output

o Click on my apps and create a new app

o Fill the required information and create a new app

o Key and access token generated and create your access token by clicking the access token button

- Consumer key and consumer secret key generation and access token and token secret generation

- Install packages like twitter, devtools, sentiment, word cloud, ggplot2, and RColorbrewer

- Create API key, access token, API secret, token access key, and secret key

Interpretation:

Source: Authors analysis
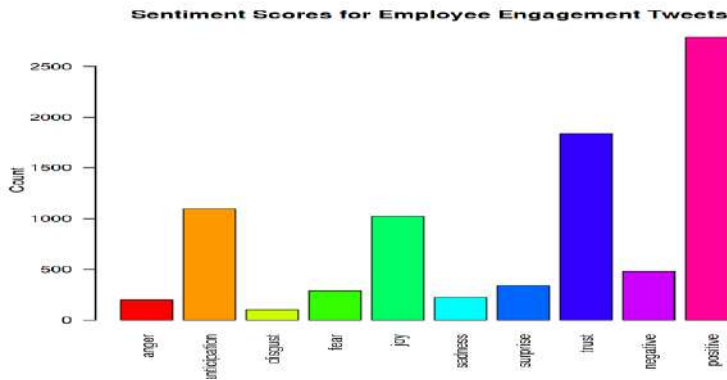
Heuvel &Bondarouk 2016 said," HR analytics is the systematic identification and quantification of people's drivers of business outcomes".From the output, we can understand that unpredicted events like the covid-19 pandemic period employees can have a significant impact on their work culture and workforce sentiments. From the word cloud we can see that words are related to engaged, work, culture, learn, leaders, company, register, workshop, etc are highlighted from the tweets by users. All associated words are highly positive sentiment emotions. We can understand that all employees move towards the digital world and they have adopted many technological disruptions in the new normal phase positively. As per Carly Fiorina's report," The goal is to turn data into information and information into insight".We can understand the employee engagement activities level is very high during the covid -19 May Month. As per Gallup records, it is reported that employee engagement is high up to 38% in Mid May and after June 14th engagement level has dropped down to 31% because of some issues in the US. From the Sentiment analysis output we can see some facts like day, engaged, can, work, culture words are having the highest frequencies. From the histogram, we can see anticipation, joy, trust, and positive emotions are very high frequencies. It shows that a large segment of employees is engaged fully in their work and upgrading their knowledge. Because the travel time has reduced and conflicts are also reduced. So they have fully utilized their time and maintained positive behaviors in their interaction and

business. From the topic modeling algorithm, we have got some words like certificate, chance, enrollment, manager, modules, online are highlighted and projected in a great way.

CONCLUSION

Career, competence, and care are the 3 important characteristics of employee engagement. HR leaders are now venturing into the field of HR analytics to make their organizations stand out in today's competition among the various organizations. People analytics, workforce analytics, talent analytics empower HR professionals to make data-driven decisions but they need not rely on gut feeling analysis anymore.HR analytics helps every decision-maker and HR leader to track every employee's professional life by tracking their CTC, training, absenteeism sharing knowledge with colleagues, and analyzing the performance-related data. Employee's performance sheet could be used by the hiring manager to identify his/her great talents. Sentiment analysis helps the HR manager to understand the insights about the employees and his feeling towards the job and his/her company. From these techniques, the top management can enhance employee morale, retention, and engagement. This twitter analytics will add value to test the effectiveness of HR policies and different interventions also. The sentiment analysis technique is the best tool to find hidden patterns.HR predictive analytics enable HRs to forecast the impact of people policies, well-being, happiness, social relations, workplace culture, workforce data, career growth, and brand alignment.

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PRINT VS DIGITAL NEWS

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ABSTRACT

In the earlier days the only source of spreading the news was communicating them orally or through the printed news. People mostly relay on the Printed news for getting any accurate information or knowledge, but the scenario has changed now, with the development in technology there is also a advancement in source of news. Now people don't just depend on printed news but they have a option of digital mode of news too. So this study is carried out to know the view of people regarding both the modes of news.

Keywords: Printed news, Digital news

INTRODUCTION:

News is nothing but the information of current events. It provide a base for many decision making. News may be regarding any topic like government, war, education, politics, environment, health, fashion, entertainment, business, economy as well as the athletics events, quirky or unusual events. People from the ancient time share the information with each other orally or through the words of mouth. Every era has experienced a revolution in the mode of news, the first newspaper "Relation aller Fürnemmen und gedenckwürdigen Historien" was published in year 1605. Later in 1989 the first digital news of the "Albuquerque Tribune" came using BBS software and telephone modems. With the increased dependence on technology and mobile phones people have made mobile phone a basic necessity of life. They depend on mobile phones and technology for almost everything. They find everything on phone which has made their lives much more easier. Even news are getting spread using a technology and mobile phones but at present situation people are forgetting the importance of printed news and are getting totally dependent on digital news. Printed and digital news complement each other perfectly. But now it can be observed that digital news is dominating our lives.

OBJECTIVES:

- To find out which mode of news is more relevant

- To find out which mode of news is more convenient

- To understand the merits and demerits of both modes of news

RESEARCH METHODOLOGY:

Primary data was obtained by using a survey method. A google form was created and circulated and online survey was conducted. This data was obtained to know about the preference of people over the mode of news and their views on printed news and digital news. The survey was performed on college students and general public in urban area between the age group of 19-45.This survey was performed by preparing Questionnaire. The sampling size for this survey was 60 literates.

Questionnaire:

Q.1 Which mode of news provide more relevant information?

Q2. Which mode of news is faster?

Q3. Which mode of news provide update news?

Q4. Which mode of news do you find more convenient?

Q5. What are the merits of printed news?

Q6. What are the demerits of printed news?

Q7. What are the merits of digital news?

Q8. What are the demerits of digital news?

Q9. Which mode of news would you prefer?

RESULT ANALYSIS:

89.6% of the people believe that printed news provide relevant information where as 10.4% of the people are against this. 100% of the people are in the favour that digital news is the faster mode of news. 75.4% people agreed that digital media provides update new and 24.6% people were in the counterpart. Again 75% people find digital news more convenient and 25% of the people the find printed news more convenient. 70% of the

people would prefer digital news where as 30% of the people would prefer Printed news. People also shared different merits and demerits of both the modes as started below:

- **Merits of Printed news:**

1. Produce loyal customer base. Reach multiple generations. Flexible to establish credible trust. Immensely powerful to craft a message.

2. Most of people don't use multimedia items so print news are the best choice for old ages and poor people, and also print news provide working opportunity to many people.

3. Written documented evidence.

4. Protection of eye from harmful rays.

5. Inculcates reading habit.

6. Best for local targeting.

7. Doesn't require technical knowledge.

8. More accurate and relevant.

- **Demerits of Printed news:**

1. Competition for attention is fierce. Requires longer lead time.

2. Creates waste.

3. Delay in serving news.

4. Limited accessibility.

5. Higher cost.

6. Hard to target a specific audience.

- **Merits of Digital news:**

1. Instant updates, eco-friendly, less space consumption.

2. Fast and cheaper.

3. Gives the global news.

4. Higher accessibility.

5. Is infused with rich content.

6. Speedy transmission.

7. News is available at a tip of finger.

8. Provides detailed information about a event.

9. Available 24/7 hours.

- **Demerits of Digital news:**

1. Require data/Wi-Fi to get online. Companies not making as much money due to free reading for audiences. News spreads quicker online - people find out news before they should. Lose money - can't get people to pay for digital. Older audiences may not access digital platforms.

2. Due to technical barrier it is difficult to use by everyone and internet also distract the focus of the reader.

3. It causes lots of health issues.

4. Can invoke relevancy issues.

5. Contribute to a rumour and misleading news.

6. Requires technical knowledge.

CONCLUSION

Smartphones and mobile phones are now the most integral part of almost every person's life in the globe. Therefore it is a need of an hour to conduct work on the modes of news because people are now neglecting the importance of printed news and are running behind the digital news. Generally the young people find the digital news more convenient and preferable but the elderly people still find printed news more convenient and preferable. It is of no doubt that printed news is more relevant than digital news because the news once printed

cannot be edited or changed but this is not in the case of digital news, the news provider may delete or edit the content of news and hence there is a lack of relevancy in digital news, but this also a fact that digital news is faster and holds a large content and information. Both the modes of news have some or the other advantages and disadvantages. Each mode has its own unique feature. So which one is better- print or digital? That's a complex and nuanced question, but we think we really have a good answer- BOTH.

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6. https://www.quora.com/What-are-the-differences-between-print-and-digital-version-newspapers

OVERVIEW-POST PANDEMIC, BOTH SIDES OF THE COIN FOR START-UPS AND BUSINESS

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ABSTRACT
Covid 19 has significantly changed the working aspects of majority people. We have noticed positive as well as negative impacts in the working environment. On one side people saw tremendous downfall in economy and on the other hand a lot of small businesses grew based on their creativity. People who lost their job resorted to business for various causes and on the flip people who loss their business resorted to jobs. There has been a continuous upward trend in start-ups and other innovative businesses during and post pandemic. This research paper describes the various reasons which has led to the wave of entrepreneurship and explains various causes for downfall of certain sectors.

Keywords Entrepreneur, pandemic, business, job, economy, aatmanirbhar Bharat

INTRODUCTION AND BACKGROUND

What is a business?
Business is enterprise or organizations which are formed with primary motive of profit. They can include activities like buying, selling, manufacturing etc in broader terms including anything for money. All commercial activities are included in business.

What is a start-up?
The initial stages of a business idea before getting converted to scalable business. It is the starting phase of the business.

The start-up wave has been associated with layoffs of employees. Start-ups focused on the pandemic problems' and came up with unique solutions to them. They focused on changing customer patterns by investing and innovating in logistics, delivery and all IT related sectors. The rising sectors where most innovations grew were customer engagement, delivery and operations.

Whereas a lot of sectors fell due to pandemic which mainly required human contact or physical presence. Lockdowns restricted movement of men and material, the human touch was missing. Government restrictions and the fear of the pandemic doubled the negative impacts on certain businesses. Certain sectors were affected due to cash requirement as in lockdowns people were facing monetary issues.

OBJECTIVES OF THE STUDY
- To determine the driving forces behind the wave of entrepreneurship.

- To determine effects of pandemic on businesses.

- To analyse what kind of start-ups ideas have initiated during and post pandemic, and which industries were severely hit by the pandemic causing losses.

- To understand whether pandemic has been a boon or a disadvantage for businesses.

RESEARCH METHODOLOGY
The research methodology used is secondary. Secondary research is derivation of data for analysis from existing data. Secondary research is based on existing research from govt. published reports, websites, newspaper, books etc.

SIGNIFICANCE
This information contains which factors assisted in the growth and which factors led to the downfall. The purpose of the study to understand the driving cause of new start-ups and reasons which made certain sectors at a loss, the derived the information can used to assess the ideas whereas understanding the downfall will help take protective measures for future.

Body
The growth in start-ups was also due to the aatmanirbhar Bharat scheme of our honourable Pm Modi, also other helps provided by various govt schemes and programmes run to help people suffering in pandemic.

Positive aspect of the coin - In the pre-covid era a lot people whether satisfied or not were sustaining to the job because of various reasons like lack of confidence for pursuing their passion, family related issues or the most important a constant source of income. The coronavirus stroked the world with no immediate time to response, due to which there were lockdowns, no movement of man for certain period. First few days of curfew were sustained until companies started facing losses and had to implement work from home. The work from home (wfh) concept was running until people faced issues like boredom, no family space, prolonged working hours, increased screen time etc. Work from home was a kind of complete frustration for people who weren't satisfied with their job. Also, in pandemic a lot of people lost their job due to downsizing of business where a lot of people were clueless leading to financial crisis. All these grounds made people resort to business. The other reason was a lot of free time in pandemic which helped people discover what exactly they want from their career. A lot of people kick started planning to start something of their own. Whether an employee or a college student, there were many budding entrepreneurs. Also, a lot people got into start-ups because of challenges faced by them in the pandemic, they tried finding solutions to the problems they faced. Start-ups during COVID-19 skyrocketed.

The downfall of economy was due to no vaccine available at the start of pandemic, followed by lockdowns. The second cause was fear from the virus.

Negative aspect of the coin - downfall of business- Since the pandemic struck the economy, all the sectors except essential services were hit with greater speed. There was complete lockdown due to which retail centres, flights, clothing, fashion industries etc faced a downward trend. A lot of small-scale industries and start-ups resorted to shut down or downsize the firm due to low or no revenue. For new start-ups there were no funding from banks or other sources. Availability of the resources required was limited. Also, the issue of getting work done online was a challenge. There was resistance for work from home. The economy itself was not in a position to support the growing businesses. Hospitality, tourism, aviation etc have faced the severe effects during pandemic because such industries needed human contact which was to be avoided. The public health in general being important all other sectors other than food, fmgc, pharma, etc. were kept on secondary focus. Productivity, market access and required finance were the main challenges that existed.

FINDINGS
Side 1

Aatmanirbhar Bharat, a drive by Pm Modi was a major push to young entrepreneurs.

- People perceived a lot of opportunities while dealing with pandemic.
- Certain people developed solutions to persisting problems, certain people scaled their idea with their approach.
- Started from digital aspects people developed software which covid reduce human touch in all aspects.
- People came up with ideas that could protect people from viruses.
- Being at home people worked on their existing business ideas and started working on it.
- Digitisation, free time as well as certain factors such as job loss, boredom from a regular job etc kicked the start-ups
- Also, government incentives for start-ups to raise the falling economy or the make in India move was also a factor to push

Facts

1. Nearly 40% of the Recognised Start-ups in India Emerged after the Pandemic Hit – news18 June 4 2021
2. Pandemic Fuels Global Growth of Entrepreneurship and Start-up Frenzy – Forbes 9 April 2021
3. Start-Up Boom in the Pandemic Is Growing Stronger – NYTimes Aug 19 2021
4. Economists speculate a combination of accessible technologies, home confinement, and yes, spare time, may have been the catalyst – salesforce.com

Side 2

Unplanned lockdowns were the cause of fall of certain sectors.

- People wanted to avoid human touch which refrained many sectors such as travel tourism hospitality, etc to operate.

- Even lockdown for a boon for every sector except essentials.

- People were devoid of income where they could not bear all the expenses of the business resorting to asking the employees to leave the job, shutting their operations, or else restricting themselves to limited production.

Facts

1. The industries that have been most impacted have changed slightly from our last blog post. The Restaurants and Auto Parts & Equipment industries have dropped out of the top five most impacted industries and have been replaced by Apparel Retail and Home Furnishing Retail. – SPG global 22 March 2021

2. Due to the COVID-19 pandemic, the travel and tourism industry's employment loss is   predicted to be 100.08 million worldwide (Statista, 2020) -tandfoline.com

3. 57 per cent India companies suffered downtime in 2020 due to data loss, ransomware remains a big threat: Acronis survey – april8, 2021.

4. Covid 2nd wave led to business loss of Rs 15 lakh crore in 2 months: CAIT-India today June 2.

CONCLUSION

- A fall of certain sector was balanced by a rise of another innovative idea which helped the falling economy to not hit the ground.

- New skills and creativity can help rising the horizon.

- Start-ups which grew in pandemic were ideas which were solving certain issues like delivery, pharma etc.

- According to yourstory.com Within a month, C-CIDA received over 1,100 applications, out of which 30 innovations in critical categories across diagnostic kits, ventilators, remote monitoring, preventive technologies, etc., were selected.

- Sectors which fell were mostly service oriented where human gathering could possibly raise more infection like tourism, hotels, restaurants, retails.

REFERENCE

- Online publications- News18, CNBC, McKinney, acronis, spg global etc.

A STUDY ON THE IMPACT OF COVID-19 ON CAREER PLANNING OF GRADUATES IN MUMBAI

Sayed Mohammad Raiyan

1} INTRODUCTION
1.1} Background of Topic
As human beings, our lives are full of decisions and choices. Some big, some small. Some easy, some tough. Some of little to no consequence while some have far reached and lasting impacts on our lives and one of the most important decisions, we make in life is that of our career path. It is a decision that may very well dictate the rest of an individual's life, a decision that leaves most, if not all people scratching their heads and is made only after a lot of careful thought and consideration.

Now historically, career choices have not remained constant. They change over time with changes in technology, people's mindsets, education opportunities and the larger economic environment. This is very clearly seen in how employers no longer provide long-term employment guarantees, opportunities for internal advancement have been curtailed by downsizing, work-life balance is a concern as the proportion of dual-career families increases, the encumbrance of work into people's non-working hours continues to grow and people are increasingly becoming responsible for their own professional and technological development. While it can be argued that there are a few careers that have been present since time immemorial and will always continue to be there, it is undeniable that there have and will continue to be technological developments that will see a change in roles along with more specialization and diversification in these careers e.g., a doctor.

2} THEORETICAL BACKGROUND
In December 2019, the world was hit by a new and unfamiliar strain of the Corona Virus which emerged in China but quickly spread to the rest of the world and as governments around the world-imposed lockdowns and other measures to curb the spread of the virus, the world itself was forced to a grinding halt. People were trapped in their homes, unable to go to work or any educational institution. The need for accessibility was felt more than ever before and when it became apparent that the pandemic would not be over anytime soon, both, jobs and education moved to online platforms. This digital shift, which while not a big or new one for the rest of the world, was a considerable obstacle for a country like India where access to the right technology and internet speeds was mostly restricted to urban and suburban areas. Both, education and careers, were affected but perhaps the most affected were those people who were stuck in a transition between the two i.e., the graduates. Graduates faced problems on two fronts. The first being the fact that their exams were delayed indefinitely and that even when conducted, the results had lost a significant portion of their credibility due to the pattern of testing. The second being that a majority of the businesses that graduates look to for employment were still reeling from the pandemic and suffering through a severely reduced volume of business and already in the process of downsizing.

These two factors left graduates with largely two viable options; to pursue further education or, to get some valuable work experience via various internships, or in some cases, both. However, no matter which option they chose, they ultimately realised they had more free time on their hands than ever before. The increasing shift from offline to online modes paired with this extra time led to most graduates upgrading their skills or 'upskilling' through courses and other material available online, both certified and uncertified in order to diversify their careers and keep up with a world that is everchanging and rapidly evolving, which we shall explore through this project.

3} REVIEW OF LITERATURE.
1) Puranik (2021) mentioned about the Covid-19 impact on the employment of recent graduates particularly in Mumbai. Furthermore, the report stated the various points as to why it became so difficult for the new graduates to hunt for a job in the current scenario. The research finding states that the graduating batch of 2020 and 2021 will enter what will become an extraordinarily terrible labour marker, notably more unfavourable for freshers and those not professionally set yet.

2) Chandra (2020) mentioned about the immediate impact of covid 19 on the education system, the growing demand for computers and IT equipment at home and the conversion of the teaching system from offline to online mode. The study also stressed on suspension of examinations and education programs. The research findings stated that Students and faculty should give importance to online teaching methods during the routine teaching schedule that will help in these circumstances.

3) Gunasekaran et al (2021) stated the various initiatives of government for primary, secondary as well as higher education during covid 19. The study highlighted various initiatives such as Swayam, Swayam Prabha and e-PG PathShala for higher education and the evolution of innovative technologies in Education Sector. The research stated that there is an urgent need to take efforts on maximum utilisation of online platforms so that students not only complete their degree in the academic year but also to get ready for the future digital oriented environment.

4) Chandra (2020) mentioned perception of academic stress and emotional intelligence coping strategies among college students. The findings indicated significant differences were observed between the fear of academic failure and online and home environment among male and female students. Many of them have started diverting themselves to various creative activities and taking up courses that are helping them to learn new technical skills.

5) Raut (2020) stated the various effects of job losses in India in different industries. The study further stated the positive and negative impacts on fresh graduates and post graduates. The finding stated the effect of covid 19 on future jobs with respect to new job creation, salaries, delay in interviews and many more.

6) Satpathy et al (2020) mentioned about the anxiety, depression and stress level of students during the covid 19 outbreak. The study stated that the main reasons for depression among final year students were Mental tension, career and negative psychology and also other factors such as social distress, job offers, etc. The research findings state that institutions should adopt an online method of psychosocial intervention to reduce the anxiety level of students.

7) Natarajan (2020) stated that the impact of the lockdown imposed and its restrictions to combat the spread of the virus has brought economies to a standstill and risked the job prospects of numerous graduating classes of 2020 and 2021. The report showed how the future of thousands of students has been put at risk. The findings show the method in which a graduate can survive in this gloomy job market. The Association of India Universities has suggested a workaround to reduce the uncertainty of the job prospects and thus to give a sigh of relief to the students.

8) Jena (2020) mentioned about the various impacts of covid 19 on education such as destabilization of educational activities, professional development issues, reduced employment opportunities and severely affected educational assessment system. The study further highlighted the various digital initiatives of UGC & MHRD for higher education. The findings state that Virtual education is the most preferred mode of education at such time of crisis. The post Covid-19 education seems to be an education with widely accepted online/virtual education which may perhaps be a parallel system of education.

9) Sanghera (2019) stated that graduates are educated yet jobless. The study shows that it has become more difficult for students to land jobs even after having degrees than those without degrees. As per the study, poor education measures and onerous corporate regulation are just two of the causes why jobs stay troublesome to come by for graduates despite excellent economic growth rates. The report also affirms that women are more likely to be unemployed than men.

10) Kurup (2020) stated that lakhs of undergraduates and postgraduates would be staring at the bleak future as the firms have stopped hiring amid the chaos. The report further states that a delay of 6-8 months is anticipated in onboarding the freshers in the year 2020, and the same is expected to continue in 2021. The findings suggest that the students should take up some courses or opt for internships/apprenticeships until the hiring resumes.

3.1} Research Gap
The research is different from other research as it understands Many studies and researches have been done focusing on the impact of covid- 19 on education and exploring aspects of higher studies, job employment, stress and psychological impact, etc of students due to covid-19 pandemic.

However, this research stands different as it specifically talks about Career Planning of Graduates.

4} OBJECTIVES OF THE STUDY:
- To study the impact of Covid-19 on career planning of Graduates in Mumbai
- To study the factors influencing the choice of career decisions of Graduates.
- To study the trends in career decisions.
- To analyze the current standing of career decisions of Graduates in Mumbai.

- To understand the different obstacles that were faced by graduates in career decisions of Graduates in Mumbai

5} RESEARCH AND METHODOLOGY

Research methodology is the procedures of techniques used to identify, select, process and analyze information about a specific topic. It is a systematic and scientific way to solve a problem. Research design is the framework of research methods and techniques chosen by researchers. It facilitates an orderly conduct of the research process and acts as a blue print of conducting a formal investigation.

Research Design and framework:
This report uses exploratory framework of research as it explores information about the causes of the research problem.

The sampling method used is non-probability method of sampling under which convenience method of sampling was used. For this research, the source of data collection was through questionnaire method where responses of 68 individuals were collected. The sample includes students who have graduated in the current and past two years.

The report includes various statistical tools and techniques which were used to derive an outcome. The data has been presented using graphical representation.

Sources of Data Collection:
Primary Data
The data is collected through questionnaires. A structured questionnaire tool was used and all respondents were asked the same set of questions. The survey was conducted using Google Forms and was sent to the Target audience.

Secondary Data:
The secondary data used in this research study is collected from various newspapers, e-resources, journals and websites available on the internet.

6} DATA ANALYSIS, INTERPETATION
6.1 Data Analysis and Interpretation.

Through the survey collected from questionnaire 68 responses have been collected. The responses have been converted into bar charts and pie charts for easy understanding and to draw conclusions. The interpretation follows the induction method which converts special facts to generalized statements. The letter 'C' represents approximate value.

Age of respondent where between 20-25 years of age accounts to 99% and gender of majority of respondent are females accounts to 69% and male 31% , Field of study of respondent are majority from commerce 84% and science 9% ,Arts 7%.

6.1.4 DISTRIBUTION OF RESPONDANTS YEAR OF GRADUATION.

TABLE 6.1.4

DISTRIBUTION OF RESPONDENTS YEAR OF GRADUATION

PARTICULARS	FREQUENCY	PERCENTAGE
2019	3	4%
2020	15	22%
2021	50	74%
TOTAL	68	100

Source: Compiled from Primary Data

FIGURE 6.1.4

DISTRIBUTION OF RESPONDENTS YEAR OF GRADUATION
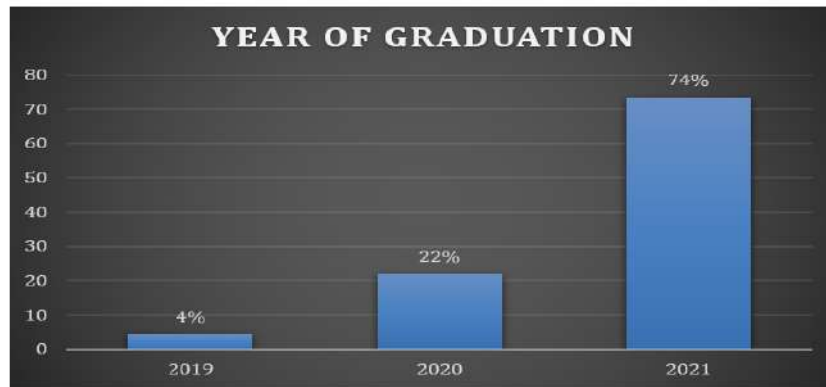
Source: Compiled from Primary Data

INTERPRETATION: From above table we conclude that year 2021 is highest as account to 74%.

6.1.5 DISTRIBUTION OF PRE -COVID CAREER PLANS OF RESPONDENTS:

TABLE 6.1.5

PRE COVID PLANS OF RESPONDENTS

PARTICULARS	FREQUENCY	PERCENTAGE
POST GRADUATION STUDIES	32	34
INTERSHIP	12	13
DIPLOMA	2	2
STUDYING ABROAD	6	6
EMPLOYMENT IN INDIA	11	12
EMPLOYMENT ABROAD	6	6
ENTERPRNEURSHIP	2	2
PROFESSIONAL COURSES (CA, CS etc.)	24	25
TOTAL	68	100

Source: Compiled from Primary Data

FIGURE 6.1.5

PRE COVID PLANS OF GRADUATES

Source: Compiled from Primary Data

INTERPRETATION:

From above table it can be stated that 34% of respondent has P.G as pre covid plans and Diploma and entrepreneurship as 2%.

6.1.6 DISTRIBUTION OF RESPONDENTS OPINION REGARDING IMPACT OF COVID-19 ON CAREER PLANNING.

TABLE 6.1.6

RESPONDENTS OPINION ON IMPACT OF COVID-19 ON CAREER PLANNING

PARTICULARS	FREQUENCY	PERCENTAGE
STRONGLY AGREE	26	38
AGREE	30	44
NEUTRAL	11	16
DISAGREE	1	2
STRONGLY DISAGREE	0	0
TOTAL	68	100

Source: Compiled from Primary Data

FIGURE 6.1.6

RESPONDENTS OPINION ON IMPACT OF COVID-19 ON CAREER PLANNING
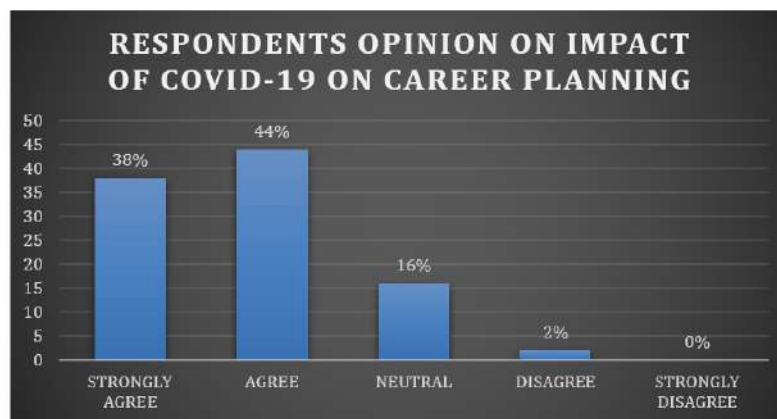
Source: Compiled from Primary Data

INTERPRETATION:

From above table it show respondent agree with 44% on their career and strongly agree 38% which all 82% get impacted.

6.1.7: Distribution of Respondents Regarding How Much has Covid-19 Affected their Career Decision.

Table 6.1.7

RESPONDENTS RATING ON A SCALE OF 1-10 ON HOW MUCH COVID 19 HAS AFFECTED THE CAREER DECISION

PARTICULARS	FREQUENCY	PERCENTAGE
1	4	6%
2	2	3%
3	1	1%
4	3	4%
5	10	15%
6	4	6%
7	10	15%
8	13	19%
9	11	16%
10	10	15%
Total	68	100

Source: Compiled from Primary Data

FIGURE 6.1.7

RESPONDENTS RATING ON A SCALE OF 1-10 ON HOW MUCH COVID 19 HAS AFFECTED THE CAREER DECISION
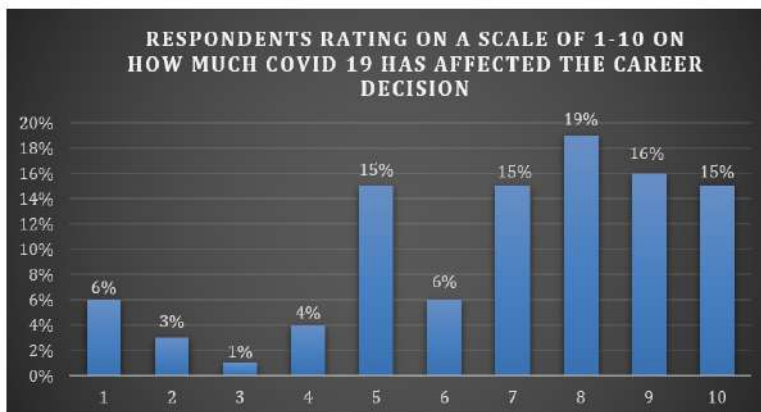
Source: Compiled from Primary Data

INTERPRETATION:

From above table it can be seen that respondents were highly affected as 7,8,9,10 rating accounts to 65%.

6.1.8 Distribution of Factors Influencing Career Decision of Graduates:

6.1.8 DISTRIBUTION OF FACTORS INFLUENCING CAREER DECISION OF GRADUATES:

TABLE 6.1.8

FACTORS INFLUENCING CHOICE OF CAREER DECISION

PARTICULARS	Agree	%	Disagree	%	Neutral	%	Strongly Agree	%	Strongly Disagree	%	Grand Total
Parental Pressure	12	18%	20	29%	18	26%	8	12%	10	15%	68
Hobby's	20	29%	5	7%	24	35%	15	22%	4	6%	68
Interests	26	38%	3	4%	12	18%	26	38%	1	1%	68
Peer Pressure	18	26%	16	24%	17	25%	7	10%	10	15%	68
Financial Constraints	17	25%	17	25%	12	18%	14	21%	8	12%	68
Skills likes	21	31%	4	6%	23	34%	19	28%	1	1%	68
Societal Image	18	26%	10	15%	23	34%	9	13%	8	12%	68

Source: Compiled from Primary Data

FIGURE 6.1.8

FACTORS INFLUENCING CHOICE OF CAREER DECISION
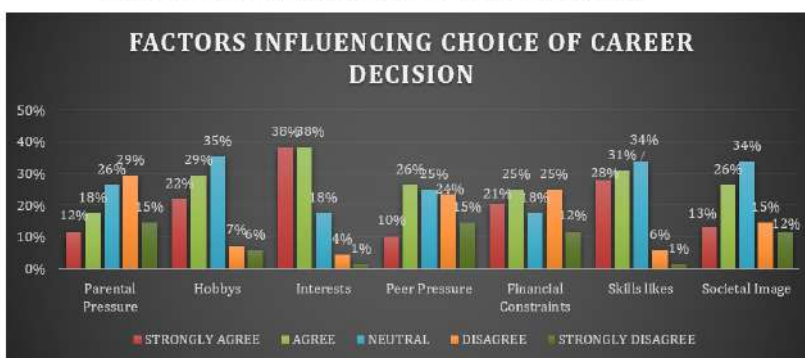
Source: Compiled from Primary Data

INTERPRETATION:

Above each factor has Likert scale to determine the impact factor

6.1.9 Distribution Of Respondent's Opinions Regarding Their Career Choice Is Stable And Secure For Their Future Post Covid 19:

TABLE 6.1.9

RESPONDENTS OPINIONS WHETHER THE CAREER CHOICE IS STABLE AND SECURE FOR FUTURE POST COVID 19

PARTICULARS	FREQUENCY	PERCENTAGE
STRONGLY AGREE	18	26%
AGREE	31	46%
NEUTRAL	16	24%
DISAGREE	3	4%
STRONGLY DISAGREE	0	0%
TOTAL	68	100

Source: Compiled from Primary Data

FIGURE 6. 1.9

RESPONDENTS OPINIONS WHETHER THE CAREER CHOICE IS STABLE AND SECURE FOR FUTURE POST COVID 19
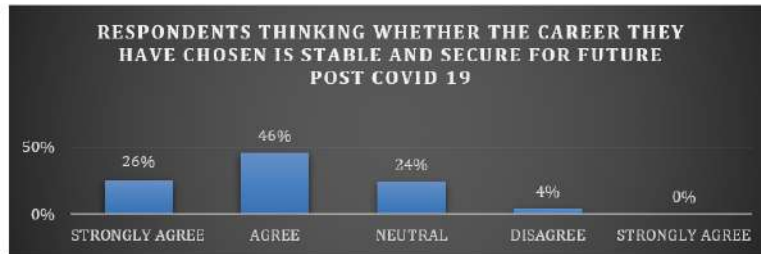
Source: Compiled from Primary Data

INTERPRETATION:

From above table 72%{46%+26%} of respondent are stable and secure for future post covid-19.

6.1.10 Distribution of Respondents' Thinking Towards the Credibility of Graduation During Covid 19 Has Been Lost Due to Online Learning:

TABLE 6.1.10

RESPONDENTS THINKING TOWARDS THE CREDIBILITY OF GRADUATION DURING COVID 19 BEEN LOST DUE TO ONLINE LEARNING

PARTICULARS	FREQUENCY	PERCENTAGE
STRONGLY AGREE	27	40%
AGREE	29	43%
NEUTRAL	8	12%
DISAGREE	2	3%
STRONGLY DISAGREE	2	3%
TOTAL	68	100

Source: Compiled from Primary Data

FIGURE 6.1.10

RESPONDENTS THINKING TOWARDS THE CREDIBILITY OF GRADUATION DURING COVID 19 BEEN LOST DUE TO ONLINE LEARNING
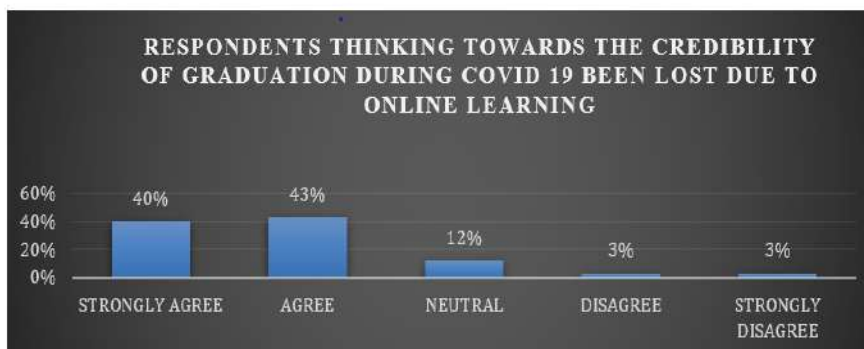
Source: Compiled from Primary Data.

INTREPRETATION:

From above table credibility of graduation during covid has reduced or loss was seen as 83% by respondents.

6.1.11 Distribution of Respondants Obstacles Faced While Graduating During Covid-19 Which Affected Their Career Decisions:

Table 6.1.11

OBSTACLE FACED WHILE GRDUATING DURING COVID 19 WHICH AFFECTED THEIR CAREER DECISIONS

Particulars	Not At All Problem	%	Minor Problem	%	Moderate	%	Serious Problem	%	Total
Delay in Exams	19	28%	18	26%	20	29%	11	16%	68
Cancellation of Professional Exams	26	38%	6	9%	15	22%	21	31%	68
Intercity Travel Restriction	17	25%	17	25%	10	15%	24	35%	68
VISA	35	51%	5	7%	14	21%	14	21%	68
Less Job Opportunity	10	15%	8	12%	19	28%	31	46%	68

Source: Compiled from Primary Data

FIGURE 6.1.11

OBSTACLE FACED WHILE GRDUATING DURING COVID 19 WHICH AFFECTED THEIR CAREER DECISIONS
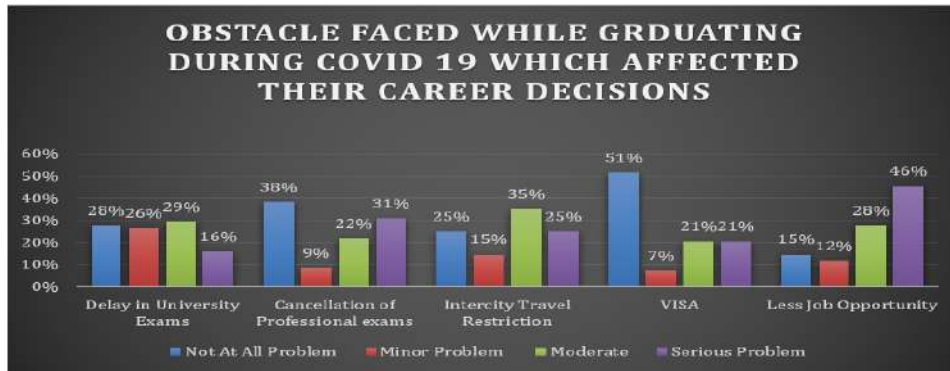
Source: Compiled from Primary Data

INTERPRETATION:

From above table obstacle faced by graduate student on a Likert scale is as shown different level of different factor is taken as such delay in exam, jobs,visa,travel.

6.1.12 Distribution of Resonpdants Regarding their Feelings towards Effectiveness of Online Lectures During Covid 19.

TABLE 6.1.12

RESPONDENTS FEELING OF EFFECTIVENESS OF ONLINE LECTURES DURING COVID 19

PARTICULARS	FREQUENCY	PERCENTAGE
HIGHLY EFFECTIVE	3	4%
EFFECTIVE	16	24%
NEUTRAL	27	40%
INEFFECTIVE	16	24%
HIGHLY INEFFECTIVE	6	9%
TOTAL	68	100

Source: Compiled from Primary Data

FIGURE 6.1.12

RESPONDENTS FEELING OF EFFECTIVENESS OF ONINE LECTURES DURING COVID 19
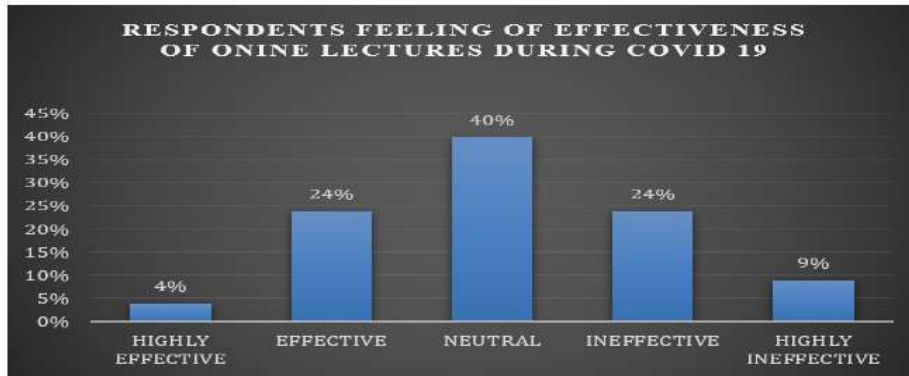
Source: Compiled from Primary Data.

INTERPRETATION:

From above table respondents feeling of effectiveness of online lecture during covid where we found out that neutral was 40% highest that means all they have neutral feeling towards online lectures.

6.1.13 DISTRIBUTION OF RESPONDANTS REGARDING THEIR COMFORT LEVEL WITH DIFFERENT LEARNING METHODS:

Table 6.1.13

Comfort level of respondents with different learning methods

PARTICULARS	OFFLINE LECTURES	%	ONLINE LECTURES	%	HYBRID	%
Very Comfortable	30	44%	12	18%	10	15%
Comfortable	24	35%	19	28%	27	40%
Neutral	5	7%	28	41%	25	37%
Uncomfortable	6	9%	4	6%	3	4%
Very Uncomfortable	3	4%	5	7%	3	4%
Grand Total	**68**		**68**		**68**	

Source: Compiled from Primary Data

Figure 6.1.13

Comfort level of respondents with different learning methods
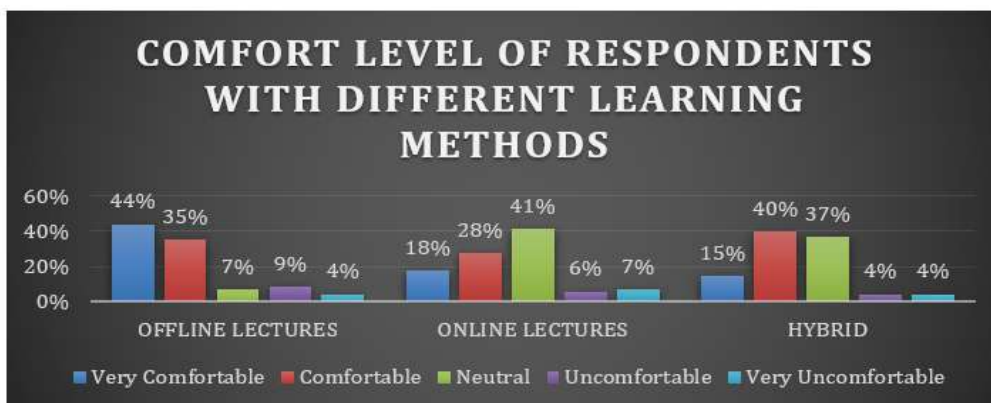
Source: Compiled from Primary Data

INTERPRETATION:
From above table comfort level of respondent with different learning method as online 41% neutral and offline or hybrid is comfortable much.

6.1.14 DISTRIBUTION OF RESPONDENTS REGARDING MODE OF STUDIES PREFFERED POST COVID 19:

TABLE 6.1.14

MODE OF STUDIES PREFERRED POST COVID 19

PARTICULARS	FREQUENCY	PERCENTAGE
REMOTE (ONLINE/WORK FROM HOME)	9	13%
PHYSICAL (INSTITUE/OFFICE)	29	43%
BOTH	30	44%
TOTAL	68	100

Source: Compiled from Primary Data

FIGURE 6.1.14

MODE OF STUDIES PREFERRED POST COVID 19
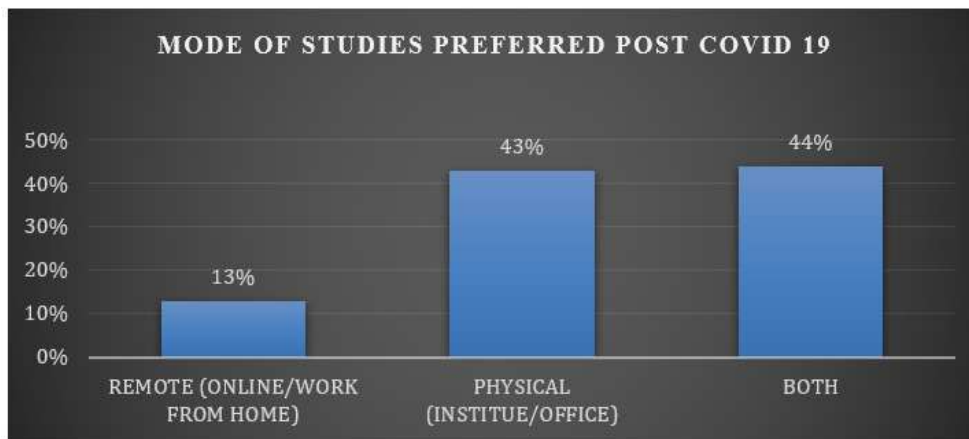
Source: Compiled from Primary Data

INTERPRETATION:
From above preferred mode of studies post covid 44% respondent preferred both.

6.1.15 Distribution of Respondents Regarding Likelyyhood of Their Current Career Decision will be Continued Post Covid 19:

Table 6.1.15

RESPONDENTS LIKELIHOOD THAT CURRENT CAREER DECISION WILL BE CONTINUED POST COVID 19

PARTICULARS	FREQUENCY	PERCENTAGE
VERY UNLIKELY	2	2%
UNLIKELY	6	9%
NEUTRAL	21	31%
LIKELY	18	27%
VERY LIKELY	21	31%
TOTAL	68	100

Source: Compiled from Primary Data

Figure 6.1.15

RESPONDENTS LIKELIHOOD THAT CURRENT CAREER DECISION WILL BE CONTINUED POST COVID 19
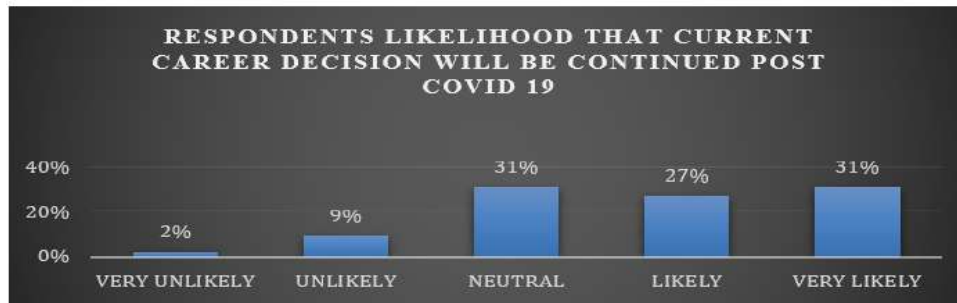
Source: Compiled from Primary Data

INTERPRETATION:

From above table respondents decision to continue that post covid were they are neutral or likely as 31%.

6.1.16: DISTRIBUTION OF RESPONDENT'S RECOMMENDATION AND SUGGESTIONS FOR UPCOMING GRADUATES:

TABLE 6.1.16

RECOMMENDATIONS AND SUGGESTIONS FOR UPCOMING GRADUATES

PARTICULARS	FREQUENCY	PERCENTAGE
TAKE A GAP YEAR	4	3%
LOOK FOR EMPLOYMENT	25	17%
PURSUE PROFESSIONAL COURSES	36	24%
LOOK UP FOR INTERNSHIPS	42	28%
CONTINUE STUDIES	41	28%

Source: Compiled from Primary Data

FIGURE 6.1.16

RECOMMENDATIONS AND SUGGESTIONS FOR UPCOMING GRADUATES

Source: Compiled from Primary Data

INTERPRETATION:

From above table recommendation and suggestion were close ended with most suitable option in which internship and studies were 28% highest each.

7}HYPOTHESIS TESTING

The hypothesis for the given research study is as follows:

Null Hypothesis (H0): There is no significant impact of Covid-19 on career decisions of Graduates in Mumbai.

Alternate Hypothesis (H1): There is a significant impact of Covid-19 on career decisions of Graduates in Mumbai.

TABLE 6.1.6

RESPONDENTS OPINION ON IMPACT OF COVID-19 ON CAREER PLANNING

PARTICULARS	FREQUENCY	PERCENTAGE
STRONGLY AGREE	26	38
AGREE	30	44
NEUTRAL	11	16
DISAGREE	1	2
STRONGLY DISAGREE	0	0
TOTAL	68	100

Source: Compiled from Primary Data

FIGURE 6.1.6

RESPONDENTS OPINION ON IMPACT OF COVID-19 ON CAREER PLANNING
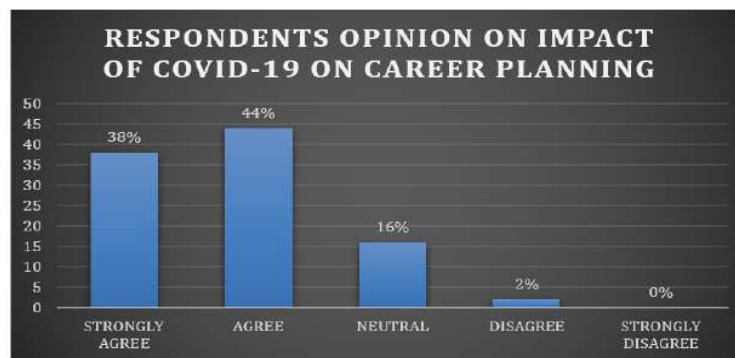
Source: Compiled from Primary Data

Since from the above Table, graph and interpretation it can be seen that the career decisions of majority of the respondents who have graduated from Mumbai have been impacted due to Covid 19 pandemic. Thus, the Alternate hypothesis which states that there is a significant impact of Covid 19 on career decisions of graduates in Mumbai is accepted and the Null hypothesis that there is no significant impact of Covid 19 on career decisions of graduates in Mumbai is rejected.

8} FINDINGS, CONCLUSION AND SUGGESTIONS.
8.1} FINDINGS

From the findings of the study, it has been observed that there is an impact of Covid 19 pandemic on Graduates. The findings of the study were gathered by collecting data through questionnaire from students who graduated during Covid 19 pandemic.

8.2} CONCLUSION

COVID-19 Pandemic has an unprecedented impact on health, education, employment and society in general on a global scale it was already clear, even early into the pandemic would affect recently graduated students. The following conclusions were drawn from the data collection and analyzed during the research study.

1. Most graduates career planning decisions have been made affected by Covid-19 and were made to re-think about career decision and have become less confident about their future employment prospects.

2. Our survey revealed the scale of challenges that recent graduates have faced since March 2020 are constant delays in university exams, professional exams, Intercity travel restrictions and less employment opportunity.

3. Despite the challenges face due to COVID-19, Many graduates still feel their career choices are stable and secure for future and Post Covid-19 and are most likely to continue their current Career decision.

4. Due to Covid-19 many universities switched to online method of learning to practice social distancing. Our research captured the difference in opinion about online lectures during graduation. Some of the students thought that online lectures are ineffective while some found the online lectures effective.

5. The research also identified that many graduates think that credibility of Graduation during covid -19 has lost due to online lectures and many would want to pursue their post-graduation studies and employment opportunity in Physical mode or Hybrid mode.

8.3} SUGGESTIONS:

The Covid-19 has already had a severe effect on graduate employment and opportunities for career development. It is important to support graduates to avoid under or unemployment in order to help the economy recover and give them the best possible chance of achieving their goals and aspirations.

These are some solutions that will help to solve many problems caused by the Impact of Covid-19 on graduates.

- Universities and institutes should recognize the impact that Covid-19 has had on graduate employment and further studies and should provide with support them with various career and skill development courses and employability services.

- Universities should ensure career education, information, advice and guidance and opportunity for work experience, learning and skills development are considered essential part of curriculum.

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STUDY OF CYBER SECURITY, ATTACKS AND THE IMPACT ON LATEST TECHNOLOGIES

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ABSTRACT
In the field of Information technology cyber security plays an important role. In the present world it a big challenges to secure the information. When we come across the term cyber security the first thing to come in our mind is 'cyber crimes'. Cyber crimes are increasing each passing day.

Many government organizations are finding ways in order to avoid these crimes. Even though we have found various measures, still it is a very big issue for many people. Many Government and Non-government organizations are facing cyber-attacks problems and also the danger of wireless technique. The world now is highly dependent on digitalization; the protection of the data from these cyber-attacks is also a big problem now.

These cyber-attacks not only cause harm in finical feilds, but also they may be harmful in political or armed forces of the country. The aim of this paper is to focus on challenges face by latest technologies and to understand them properly.

Keywords: Cyber security, cyber crime, social media, cyber-attacks', technologies, anti-virus,

INTRODUCTION
Today we are using internet for more than 20 years, it is just one click and your data is send to the person waiting on other end. The data can be in any form such as email, an audio file, a video file or a simple text message. Do we know how securely our data is transmitted on the other end without leaking its privacy; it is just due to cyber security.

The availability of internet services at cheap cost, easy use and high performance, there are millions of users worldwide. Today in this fast world which is highly depended on internet, do we think about the serious fact about it. Even for the information of every small thing we use internet and this gives rise to cyber crimes.

From shopping online till ordering grocery we are totally depended on internet, we make online payment. Sometime making a small online payment would lead us to a very big fraud. Many big companies are working online; high quality security is required for their transparency and transactions.

Cyber security not only means securing the information of big companies but also taking preventive steps at individual level and also huge places such as cyber space. In cyber crime the root source of theft is computer i.e. using computer as the basic mode of illegal activities.

WHAT IS CYBER SECURITY?
The main thing that any organization will think is to secure their private data, as now the world is moving towards digitalization. It is also important to hide our data form hackers in order to avoid frauds and misuse of our private data. Social media provides us a platform on which we can interact with our family and friends.

But these social networking sites may cause us harm in some ways. It is very easy for someone to get data about someone else's life in few seconds. The hacker may get our private data and keep an eye on us. There may be fraud people on social websites, they give some schemes and ask for bank details, which if given leads to a money scam.

Measures for protecting private information, maintaining data regarding internal threats, maintaining data regarding external threats and also networks includes in cyber security. Only the authorized individual would access the data. It also can trace the known objects in the computer systems such as virus, worms, hacking, etc.

SOCIAL MEDIA ROLE:
As we are a social animal i.e. we are connected to our family, friends on social apps. This can cause in the protection of our personal data and can cause more security threats. Almost everyone now is using social media, it has became huge platform for cyber criminals' to perform activities such as obtaining information about someone, leaking information, making a fraud regarding money or something else.

Since people are easily available on social media, they become a mode of gaining information and data required by hackers. In one click we share our personal information on social apps, the companies should also ensure us about our security that no unknown person has access to steal or see our data without our permission.

The companies would also take a note regarding the threats and also respond against them quickly. And also the users should take care when dealing with it and prevent information loss. Individuals share post on social media for a challenge give by them to make their profits.

Many wrong information are spread very fast on social media. Many cyber crimes takes place on it, but no one can stop using these apps because it is a necessity now. Alternate way is that the users should be notified if such threat is detected to take precautions before damage.

And also the users should check the privacy to whom, to share and not to share. While handling social media on must know the right technologies and appropriate knowledge about it.

TECHONOLIGES OF CYBER SECURTY:

❖ **Access control:**

▪ Access control with password security is one of the basic measures of cyber security.

▪ In includes user_id and corresponding password to login into the account.

❖ **Authentication:**

▪ Any document which is downloaded should be checked before downloading.

▪ The source is trusted, reliable, authenticated and also it is not altered in the way. It does not contain any type of virus, etc.

❖ **Scanners:**

▪ It is software which scans the files and documents in the host system.

▪ It helps in detecting malicious software or harmful codes like viruses, worms, Trojan, etc.

❖ **Anti-virus:**

▪ It is an application used to detect virus present in the computer system.

▪ It also prevents and takes action against the malicious code whether by deactivating it or removing it from the system.

▪ Most of these software's update them automatically, so that if new virus is recognized it has its information in advance.

CONCLUSION

Security is a very huge topic which is also more important. As the world now is interconnected to this network even for a very small thing. The crime keeps on changing now and then and so this rule is applicable for security in the same way.

Till today there is no solution for cyber security, with each passing day. We should take the preventive measures for our safety and avoid future crimes.

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A STUDY ON OVER TOP [OTT] PLATFORMS AND IT'S IMPACT ON CABLE OPERATORS DURING PANDEMIC

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ABSTRACT

COVID-19 is global pandemic that has modified the audience in India on the approach of consume media. There has been a tremendous growth in number of subscriptions on OTT platforms. While international players like Netflix and Amazon prime have steadily established their roots in market share of Asian nation, Indian streaming services like Hotstar and JIO Cinema has also gained a strong foothold. The shift from typical media to immoderate (OTT) media, significantly within the less amount of time thanks to the COVID-19, has resulted a war between streaming service operators to draw in and retain customers. within the lightweight of this transformation. In the light of this change, the present study conducts how it affected the cable operators in particular. How OTT have attracted especially youth towards it. For further understanding people's opinion were used to analyse through survey with the help of a self -designed questionnaire. With the globe facing the impact of the pandemic, the implications rising from the study provides a chance to the operators of OTT platforms to achieve on the perceived amendment to the simplest for their benefit.

Keywords: OTT, Covid-19, Cable operators, Impact.

1. INTRODUCTION

The Covid-19 pandemic and therefore the across the globe lockdown has not only reduced the growth of the business and monetary outcome, nevertheless has in addition prompted amendment within the activity pattern of the people towards consumption of products and services, as well as that of digital based mostly consumption. One in all the foremost affected domains nowadays is media and diversion (M&E), that is very captivated with the promotions and on-ground activities and events.

OTT stands for "Over the Top" and refers to any streaming service that delivers content over the web, in contrast to cable TV. These OTT platforms square measure a similar as the other apps or services on the market on the web, all you is need a device that supports OTT and internet and BOOM.

People presently have a great deal of decisions at simply a click by the approach of OTT. They currently have the ability to appear at content on a range of platforms and additionally the alternatives to access numerous platforms for specific content and consider channels by "just clicking", this provides them a lot of power on the content as they have an option to what they choose to purchase and when to watch.
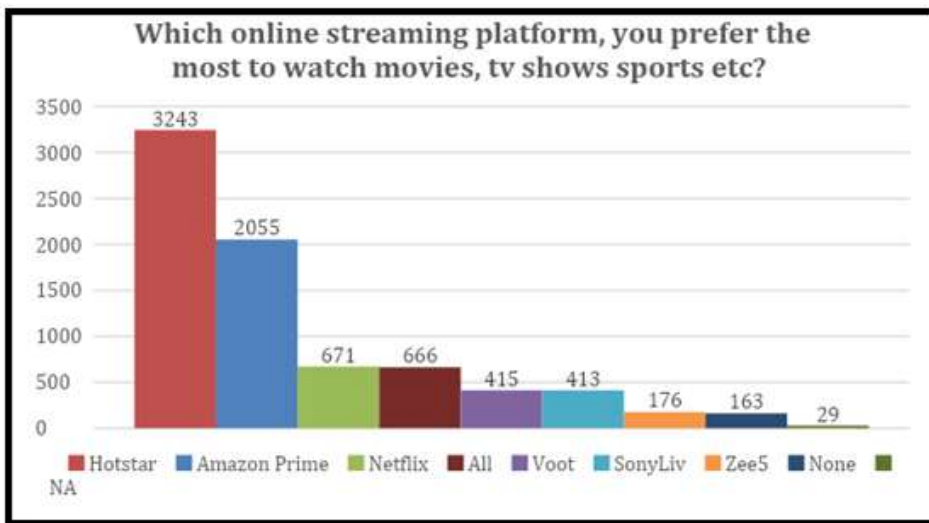
Source: Economic Times

2. REVIEW OF LITERATURE:

From the same discussion, it can be concluded that the digital era has unarguably spread out avenues for streaming services to connect and engage with customers in actual time. In order to stay aggressive, it will become vital for the service vendors to focus on key drivers that impact the purchaser's selection to live linked to the company and offer it regular go with the flow of sales in future.

Menon (2020) states that limitations forced in the wake of Covid-19 pandemic significantly changed the consumption pattern for media and entertainment too. As lockdowns kept individuals from wandering out, either or recreation or work, public activity progressively moved to online stages. Web-based social networking furnished the chance to remain associated with families, companions, partners, neighbours and others. With external channels of entertainment (Out of Home-based entertainment) shut by government request, the home-based entertainment modes showed consistent growth and development.

ICFAI (2019) report mentions that Content is claimed to be the most important thing when it involves the subject of on-demand OTT platforms and Netflix has been in the top when it comes to content. Hotstar appears to be massively considered because of the content it offers at affordable prices after Netflix.

3. SCOPE:
This research is primarily about information on the concept of OTT platforms influencing users during pandemic time. Consumer opinion, their understanding about OTT platforms. The OTT Platform provides greater applications and movies for the subscribers. To understand the factors influencing customers to pick extraordinary varieties of OTT platforms and to look at the key opportunities surrounding OTT adoption due to Covid-19.

4. OBJECTIVES:
• To study the progress of OTT since pandemic.

• To study what factors influenced to adapt OTT platforms because of corona.

• To take a look at and examine people's behaviour towards OTT and TV.

• To understand the factors affecting the users to opt OTT Platforms.

• To analyse the destiny notion of customer in the direction of OTT Platform.

5. 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.

Data Analysis and Interpretation: The data is analysed and interpreted using Microsoft Excel 2019.

6. 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 respondent's view.

7. DATA ANALYSIS AND INTERPRETATION:
Chart 1- Responses on platform used for watching

Mostly where do you watch movies, tv shows, web series, sports, etc?

Cable Operator 47.5%
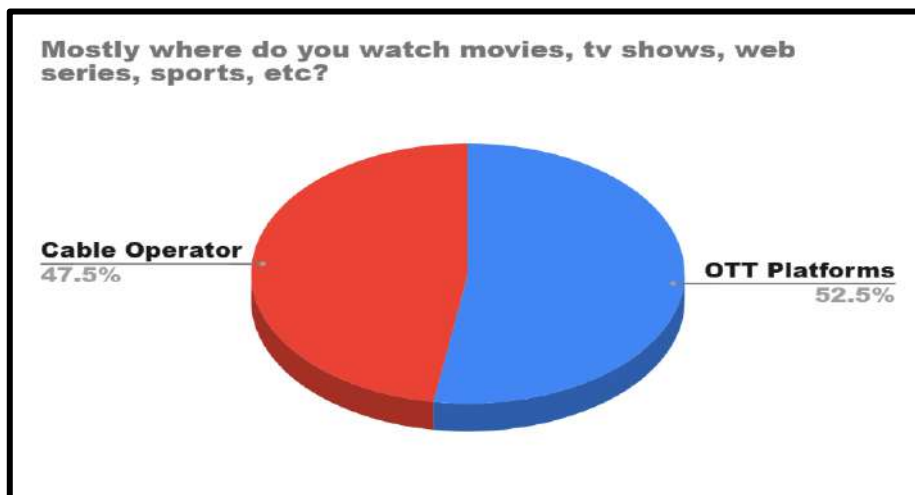
OTT Platforms 52.5%

Source: Primary Source

Interpretation: From the above pie chart, it can be observed that majority of the respondents have chosen OTT platforms to watch movies, tv shows, web series, sports, etc. instead of cable operating platforms.

Chart 2- Responses on most preferred OTT Platform
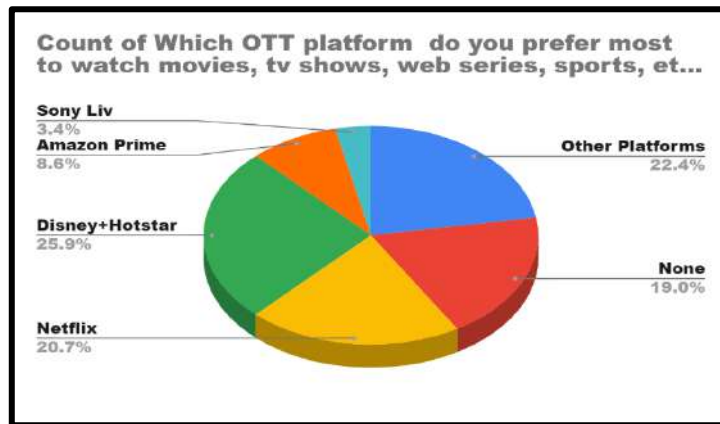
Source: Primary Source

Interpretation: From the above pie chart, it can be observed that 25.9% of respondents have selected Disney+Hotstar to watch movies, tv shows, web series, sports, etc. 22.4% have chosen any other OTT platforms, then 20.7% people have opted for Netflix, 19% of respondents have not used any OTT platforms for entertainment purpose, 8.6% have used Amazon Prime and only 3.4% selected Sony Liv.

Chart 3- Responses on Planning for weekend
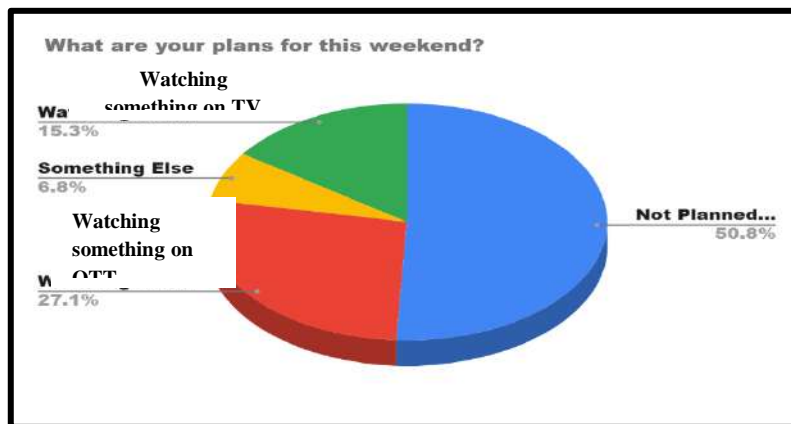
Source: Primary Source

Interpretation: From the above pie chart, it can be observed that half of the respondents have not planned anything but 27.1% have already planned to watch something on OTT platforms, only 15.3% have selected to watch something on TV and 6.8% of respondents will do something else.

Chart 4- Responses on impact of OTT platforms since pandemic
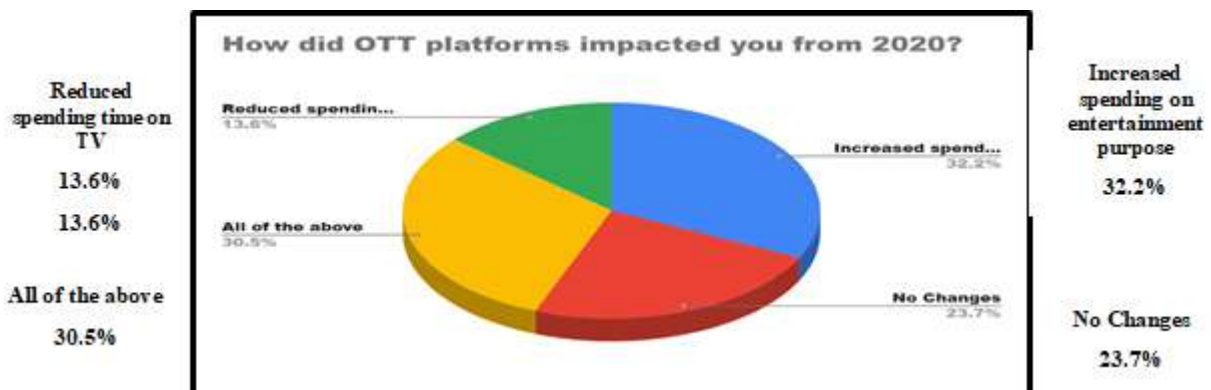
Source: Primary Source

Interpretation: From the above pie chart, it can be observed that 13.6% of respondents have started to spend less time on Tv for entertainment purpose because of OTT, 32.2% of respondents think that their expenditure for entertainment has increased, 30.5% of respondents feel that they have reduced spending time on Tv but their expenses on entertainment has increased and 23.7% of respondents have incurred no changes since pandemic.

Chart 5- Responses on time spent on OTT platforms
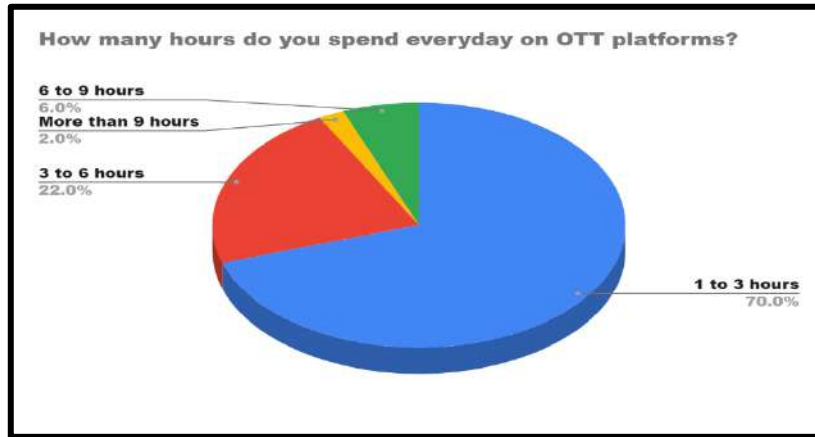
Source: Primary Source

Interpretation: From the above pie chart, it can be observed that 70% of respondents prefer consuming OTT platforms for 1-3 hours per day, 22% of respondents prefer consuming OTT platforms for 3-6 hours per day, 6% of respondents prefer consuming OTT platforms for 6-9 hours and only 2% of respondents prefer consuming OTT platforms for more than 9 hours.

Chart 6- Responses on OTT as source of future entertainment
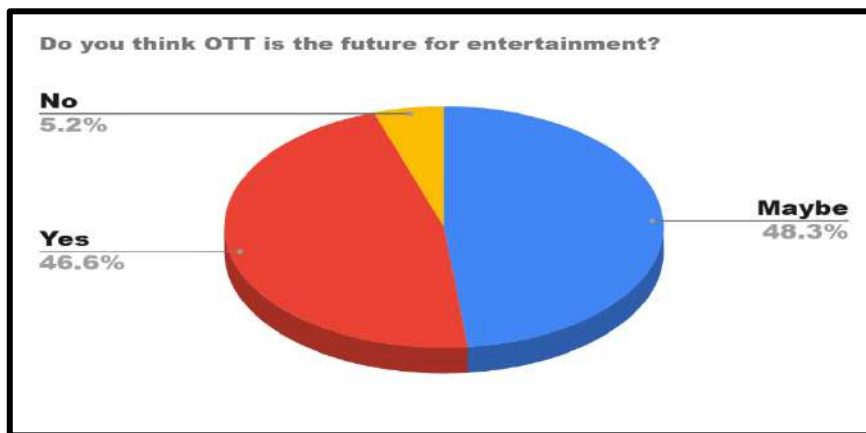
Source: Primary Source

Interpretation: From the above pie chart, it can be observed that 48.3% of respondents that OTT might be the future for entertainment, 46.6% of respondents think that OTT will definitely replace cable operator in future and only 5.2% people think that OTT is not the future for entertainment.

8. KEY FINDINGS

- Majority 52.5% of the respondents prefer OTT platform over cable operators.
- Majority 62.7% of the respondents think their entertainment expenses has increased and TV time is reduced.
- Even though some OTT platforms are expensive, people still prefer OTT platforms over cable operators due to content and its availability.
- Majority 25.9% of respondents prefer Disney+Hotstar over other OTT platforms.
- Majority 27.1% of respondents are planning to watch something on OTT during weekend.
- Majority 70% of respondents spend almost 3 hours of their day on OTT platforms.

➢ Majority 56.5% of respondents have watched most movies, tv shows, web series, sports, etc. on OTT platforms since pandemic.

➢ Majority 94.9% of respondents think that cable operators can be fully replaced by OTT platforms in future.

9. CONCLUSION

From the above study it can be concluded that OTT had a negative impact on cable operators as people are preferring OTT platforms more than cable operators because in the past people had to be present in front of TV to watch a show broadcasting at a schedule time. But due to the rise of a new technology known as 'Over the Top' (OTT) has given flexibility to people to watch any content at anytime from anywhere. During the COVID-19 period, the imagination was trapped under stress and pressure and OTT helped people a lot in keeping their sanity by its huge range of content available on personal devices such as smartphones and tablets which gave freedom to watch anything at anywhere and at any time according to their desires. Pandemic situation benefitted OTT platforms a lot as it was able to provide content that people were urging for. As a result, almost all new movies are releasing on OTT platforms which is also helping to attract more people towards it. There was a 115% increase in OTT streaming between 2020 and 2021.There was an increase in the growth for OTT subscribers by 60% during the pandemic situation, where this report was given by Boston Consulting Group (BCG). It is becoming more difficult for cable-operators day by day because most filmmakers are happy to release their film directly on OTT as they are getting hefty amount for direct OTT release from video streaming companies. As all things are going, it would not be wrong to say for now that OTT will be the major or only source of entertainment in coming years, affecting immensely cable operators as well as theatres.

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FINANCIAL PERFORMANCE OF INDIAN BANKS (BEFORE AND AFTER) COVID-19 ERA

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ABSTRACT

Covid-19 caused a great misery globally. It caused a great havoc as the world went into isolation with its eruption. Businesses globally came to a still. No of industries and sectors were negatively impacted. Indian economy saw a massive decline and a negative growth rate. All the major sectors were affected, and the banking sector was negatively impacted too. Banks went through major challenges. As banks are very crucial for the economy, various measures were needed to keep the banking system up and growing. Therefore, RBI regulated several policies and regulatory measures for the banks and for the ease of the consumers. Digital banking was also considered a great step for the ease of banks and customers. As banks were closed due to lockdown, people started using online banking on a daily basis and found it more convenient. Banks are slowly and gradually recovering from the hit, it will take time but every possible measure is taken by RBI and the government.

INTRODUCTION
Overview
The Covid 19 eruption has affected our day to day activities in a very way comparable with the most distressing events in history, such as world war. The pandemic has adversely impacted other countries as well as various industrial sectors of India. In India, this pandemic has caused a negative growth rate in economy. Before the pandemic erupted, many sectors were in great swing and were performing well but because of the eruption of this pandemic, major sectors have come to a halt. So, it is very much necessary to analyse and indulge in the data about those sectors which are negatively hit by the pandemic.

BANKS
Banks provide major income in times of need. Bank is a house of finance which deals with deposits and advances and other related services. Banks takes deposits from the customers and create demand deposit. Banks provide many facilities to customers such as providing loans, debit cards, credit cards. They also provide services like introducing partial loan guarantee scheme. There are currently 34 banks in India; in which 12 are public sector banks. RBI is the main bank which looks after all the other banks and prints currency as well. The banking system was also deeply affected due to this pandemic.

IMPACT ON BANKING SECTOR
The economy of India depends on three sectors which are primary sector, secondary sector and tertiary sector and all are majorly supported by banking sector. Banking sector provides financial support to all these sectors. Disbursing loans, advances, short term credits, issuing letter of credit, bank guarantee, etc. are banks traditional work. The sector which is said to recover last from the pandemic is the banking sector. Recently, the traditional banks are going through a lot of issues and it has become very challenging for them to revise and manage changes in liquidity. There are several changes that are majorly on the forefront which includes digital banking, credit risk crisis management and cyber threat. There are several other challenges which are major technological challenge. It is not able to access systems and data because of various problems.

The RBI has taken various measures to bridge over the disastrous situation that covid-19 has led us to, like giving relief to the lending institutions. Simultaneously, new technologies can prove to be a major relief in solving problems. In handing the pandemic, banks should go paperless and 100% digital as soon as possible.

SHORT TERM DISRUPTIONS DUE TO COVID 19 PANDEMIC-
- Not able to access data/infrastructure, leading to reduce serviceability
- Difficulties in accessing branches for routine operations
- Default in loan payment
- Scaling down of non-essential operations
- Significant reduction in domestic and cross border trade
- Temporary correction in valuation of FIs, with an expected reduction in returns

RBI REFORMS IN INDIA

- COVID-19- REGULATORY PACKAGE-. RBI has introduced reforms which include forming provisions and asset classification norms. They declare providing relaxations in repayments of debt and improving access to management of working capital.

- Rescheduling of payments- To lower the impact of covid-19, all commercial banks, co-operative banks, all India financial institutions and NBFCs are now allowed to provide relaxation from 1st June 2020 to 31st august 2020 in payment of all EMI in respect of term loan. Interest will continuously accrue of the term loan during moratorium period, RBI has decided to sanction in the form of cash credit and overdraft in case of working capital facilities.

- Provisions in making working capital financing- RBI provides facilities to pay the working capital loan in the form of cash credit to borrowers and also by minimizing the stress of financial institutions. By reducing working capital margin, RBI has declared to recalculate the drawing power. This temporary arrangement is done by the RBI till 31st march; 2021.

10 DECISIONS TAKEN BY RBI TO COUNTER THE CORONA VIRUS IMPACT ON ECONOMY.

- **Repo Rate**- The RBI declared that the repo rate would be cut by 75 basis points, or 0.75 percent, to 4.4 percent. The repo rate was previously 5.15 percent, and it was last reduced in October of this year.

- **Reverse Repo-** The regulator also stated that the reverse repo rate would be slashed by 90 basis points, or 0.90 percent, on a daily average. Banks had been depositing Rs 3 lakh crore with the RBI. The current rate of reverse repo was 4%.

- **Loan Moratorium**- The RBI governor declared that lenders might provide a three-month moratorium on term loans outstanding as of March 1, 2020, which is a huge comfort for the middle class. This applies to all commercial banks, including regional, rural, small finance, and cooperative banks, as well as all India financial institutions and non-bank financial companies (NBFCs), including housing financing companies.

- **CRR**- The Reserve Bank of India announced that the cash reserve ratio would be cut by 100 basis points, or 1%, to 3%. This will take effect on March 23 and will inject Rs. 137,000 crores into the economy.

- **LTRO**- The RBI will also conduct long-term repo operations, allowing banks to access additional liquidity. The banks, on the other hand, have agreed to invest this liquidity in commercial papers, investment-grade corporate bonds, and non-convertible debentures.

- **Working capital financing-** It was made easier for lenders by allowing them to recalculate drawing power by lowering margins and/or re-evaluating the borrowers' working capital cycle. The RBI further stated that such a move would not result in a downgrade in asset categorization.

- **Interest on working capital**- All lending institutions will be allowed a three-month interest moratorium.

- **Defer capital interest**- The net stable funding ratio, which reduces risk by forcing banks to support their operations with adequately stable sources of funding, has been delayed until October 1, 2020. The NSFR was expected to go into effect on April 1, 2020.

- **The MSF** (Marginal Standing Facility) has been enhanced to 3% of SLR and will be accessible until June 30, 2020. This measure should give the banking system some relief by allowing it to access an additional 137000 crores of liquidity through the LAF window at times of stress, according to the RBI

- New liquidity- According to the governor's brief, the impact of today's announcements will inject nearly 3.2 percent of GD. The RBI further stated that it had infused Rs 2.8 lakh crore in liquidity since February 2020, which is equivalent to 14.4% of GDP.

ADOPTION OF TECHNOLOGY TO FASTEN THE BANKING SECTOR

Artificial Intelligence could offer better data integration through semantic knowledge representation approaches especially for banking sector. The covid 19 pandemic will not only fasten the adoption of technology, but will also return focus on the areas of banking.

LITERATURE REVIEW:

- Ambrish Kumar Mishra, Archana Patel and Sarik Jain (Feb, 2021) carried out a research study titled "Impact of Covid-19 outbreak on performance of Indian Banking Sector," which demonstrates the effects of Covid-19 on the performance of the Indian banking sector by creating and evaluating the world's largest comprehensive knowledge base, called ontology, in order to obtain semantic information.

- In January 2021, Vikas Kumar and Sanjeev Kumar published "Impact of Covid-19 on Indian Economy with Special Reference to Banking Sector: An Indian Perspective."

- Dr. Jitender Singh and Dr. B. S. Bodla (2020) carried out a research titled "Covid-19 pandemic and lockdown impact on India's Banking Sector: A systematic Literature Review" which demonstrates the impact of the pandemic on Banks and NBFCs due to lockdown.

- McKinsey and company (2020a, p.1) suggest that in the period of crisis, banks play a crucial role. To contribute to the resilience of companies, individuals, and other organizations, banks should adapt the challenges brought by the Covid-19 pandemic.

RESEARCH METHODOLOGY:
Following are the Research Paper Objectives-

- To investigate the changes and consequences of the epidemic in the Indian banking system.

- Research the changes in RBI policy as a result of Covid-19.

- To learn about the issues that the Indian Banking System will face during Covid-19.

- To figure out what the Indian banking system needs to do to combat the Covid-19 outbreak.

Scope-
- Paper focuses on what impact covid-19 had on the Banking System of India.

- Primary data was used for the data interpretation and The information was gathered via secondary data.

- The main source of primary data was the survey questionnaire which was prepared on the basis of the answers of the respondents.

Limitations -
- Collection of data was difficult due to lack of availability of ample information.

- The research had to be done on time but the time/duration allotted to conduct the study was less.

- The survey done could not come to a proper conclusion as the respondents were hesitant to answer while some didn't answer at all.

- It was difficult to find Review of Literature's as the topic is of recent origin and not much Reviews have been written.

Importance of The Study:
- This research will be beneficial for the researcher itself as he/she will come to know about the necessary information.

- This research will be beneficial to the students and general public as they will get more knowledge about how banks are operating after covid.

- This research will help the Banking Sectors to know more about the effect of pandemic on banks.

- This research will help the Government to frame new policies accordingly.

Data Analysis, Interpretation and Presentation:
Sampling Frame
- SAMPLE SIZE- The sample size for the study is 100 & above.

- SAMPLE UNIT- The sample unit is the respondents from the age bracket starting from 15 until 35& above.

SAMPLE DESIGN- It is a descriptive and qualitative study.

DATA COLLECTION- The study is carried out with secondary data collected by magazines, articles, research papers etc. and the primary data collected on the basis of the survey conducted.

Data Analysis and Interpretation:

Age

AGE GROUP	NO. OF RESPONSES (IN %)
15-20	18%
21-25	27%
26-30	19%
31-35	19%
35 & ABOVE	17%
TOTAL	100%

Age

100 responses
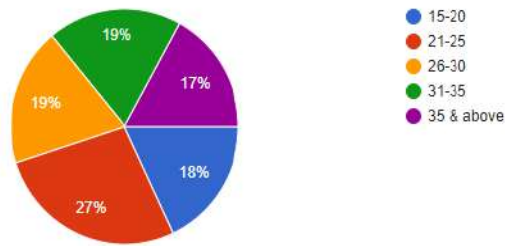
The respondents ranged from different age groups. There were 18% of respondents from 15-20 age-group. 27% from 21-25 age-group. 19% from 26-30 age group. 19% from 31-35 age group and 17% from 35 & above.

Q.1 ARE YOU HAVING A BANK ACCOUNT?

Do you have a Bank account?

101 responses
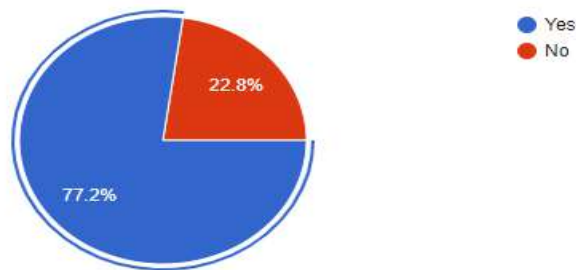
The respondents were questioned if they have a bank account. Out of 101 respondents, 77.2% of respondents answered yes while 22.8% answered no.

Q.2 IF YES, MENTION THE TYPE OF BANK YOU HAVE AN ACCOUNT WITH.

If yes, mention the type of bank you have an account with.

101 responses
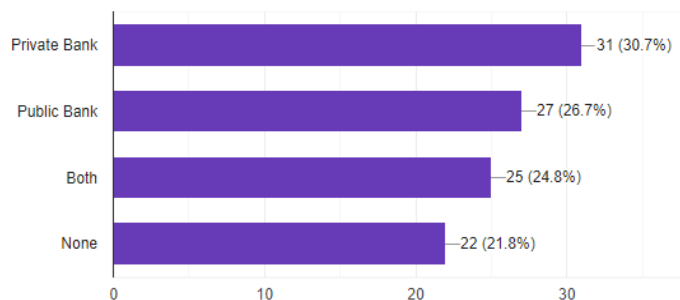
The respondents were told to mention the type of bank they have an account with. 31% have an account with private banks. 27% have an account with public sector banks. 25% have an account in both banks while 22% don't have in either of the banks.

Q.3 MENTION THE SERVICES GIVEN BY YOUR BANK

Mention the type of services provided by your bank.
101 responses

Mention the type of services provided by your bank.
101 responses

Cash safety

credit card, atm, mobile banking.

atm, debit card, online banking, chequebook

Savings AC

atm, passbook, cheques book, debit card

I am not having Bank account

Customer based

I don't have bank account

All kind of service

deposit and related services; corporate and middle market lending, consumer finance loans such as mortgage, auto loans and credit card; investment, treasury and capital market; trust and fund management; wealth management; remittance; cash management.

Withdrawal and deposit

All banking services

cards, insurance

Mobile banking

credit card, pass book, mobile banking

All services given by bank

i dont have an account

neft, rtgs, debit card

cheque book, online banking

i dont have acc

advancement of loans, credit cards

overdraft facility, atm services

internet banking, neft

chequebook, rtgs, debit card

online banking, neft rtgs

credit card, insurance

debit credit card, atm, rtgs

i don't have a bank account

guarantee by banks, insurance

credit cards, bill discouting

loans advancement, credit card, cheque payment

Consultancy

i don't have an account

Advancement of loans

I don't have

funds remittances, cheque payment

Savings account

To store my cash safety

Withdrawals of cash,loans etc.

Every possible service a bank can provide

insurance, digital banking

Every possible service

For every possible services

credit card, insurance, atm

The respondents were asked to mention the services given by their banks. All the respondents mentioned the services given by their banks which included advancement of loans, overdraft facility, ATM, debit cards, credit cards, insurance, chequebook, locker facility, online banking, internet banking, bill discounting, customer care, etc. while some respondents didn't answer as they didn't have an account.

Q.4 DO YOU PREFER DIGITAL BANKING SYSTEM OR THE TRADITIONAL BANKING SYSTEM?

Do you prefer Digital/Online Banking System or the Traditional Banking System?

101 responses
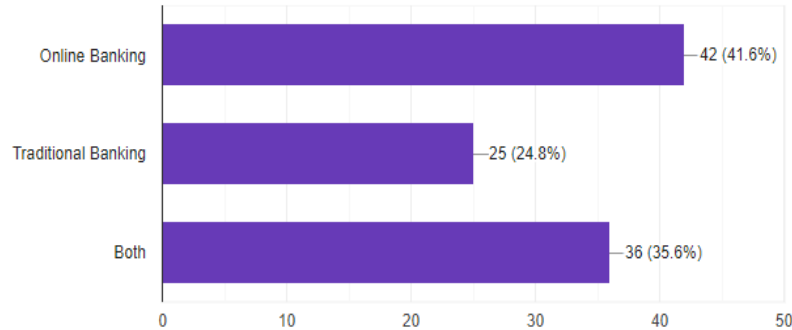
The respondents were questioned if they prefer digital banking system or the traditional banking system. 42% of respondents prefer online banking. 25% of respondents prefer traditional banking while 36% prefer both.

Q.5 ACCORDING TO YOU WHICH SECTORS WERE MAJORLY IMPACTED BY THE COVID-19 PANDEMIC?

According to you which sectors were majorly affected by the Covid-19 pandemic?

101 responses
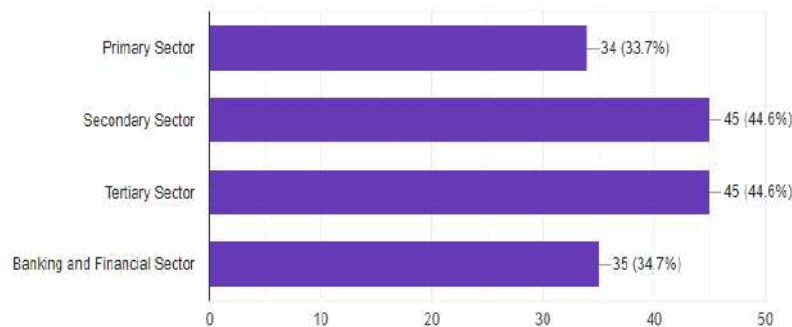
The respondents were asked that according to them which sectors were majorly impacted. 34% of respondents answered that primary sector was affected. 45% of respondents answered that secondary sector was affected. 45% of respondents answered that tertiary sector was affected while 35% of respondents answered that banking and financial sector was affected.

Q.6 WHICH UNDER THESE, ARE THE DIFFICULTIES FACED BY THE INDIAN BANKS?

Which under these, are the major challenges faced by the Indian Banks due to the Covid-19 pandemic?

101 responses
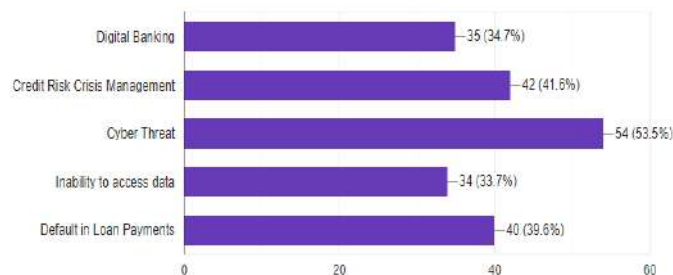
The respondents were asked to mention the difficulties that Indian banks have faced. 35% answered digital banking. 42% answered credit risk management. 54% answered cyber threat. 34% answered not able to access data and 40% answered default in loan payments.

Q.8 DO YOU THINK NEW TECHNOLOGY WILL HELP IN THE ACCELERATION OF THE INDIAN BANKING SYSTEM?

Do you think the adoption of technology will help in the acceleration of the Indian Banking System?

101 responses
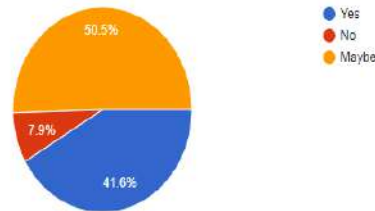
The respondents were asked if new will help. 41.6% respondents answered yes. 7.9% respondents answered no. 50.5% respondents answered maybe.

CONCLUSION

Because of covid-19, banks faced major challenges such as credit risk management system, cyber threat, etc. Now Indian banks are trying to recover well from the hit. This was only possible with the help of efficient planning and provisions. Earlier everyone was more into the traditional banking system but now the customer practices and ways have changed and the customers have started using the digital banking system more rather than visiting banks personally. The online banking infrastructure has improved a lot now compared to what it was before covid-19 pandemic occurred. The interface has become more user-friendly and more secured during this pandemic. The new technology mainly AI and semantic computing will help in the acceleration of the Banking System. Online banking is the future of India. Banks are very important for the economy therefore it is crucial for us to maintain the stability of the banks so that the economy functions smoothly

SUGGESTIONS

- RBI must make it a point that despite the pandemic, there is adequate liquidity in the financial systems and its constituents by adopting all the potential activities.

- Government should make necessary choices and carry out certain activities to reduce vulnerability and financial worry among the people and the economy.

- Keeping in mind the current scenario people should shift their focus to online banking and carry out digital payments for their financial transactions.

- Government should create awareness about the new RBI policies.

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CLOUD COMPUTING - ISSUES, RESEARCH AND IMPLEMENTATION

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ABSTRACT

Cloud computing provides us with many services like internet services, data storage, development tools, networking capabilities, etc. This computing has the services of CSP(Cloud service provider) These services are developed in the business purposes. This computing was discovered by the J.C.R Licklider (Joseph Carl Robnett Licklider), in the 1960's.when the computing was launched it became mainstream beginning in the middle Year of 2000s. The three types of cloud services are there for primary business services are there (Iaas, Paas, Saas)

Keywords: Cloud computing, services, cost of values, and Service oriented architecture, workflow, users, implementation, research uses.

INTRODUCTION:

Cloud computing has evolved into a preferred method of delivering solutions and corporate applications to enterprises all over the world. The origins of cloud computing may be traced back to the early 1960s, when the notion of time sharing was popularised through remote job input. By the 1990s, a few telecommunications behemoths had begun to provide vpn (virtual private network) services at reasonable prices. As they could do by switching traffic with proper server use, it made them use the overall network more efficiently. In 1994, the cloud concept was first used to virtualized services. In this cloud computing, we will discuss the services of cloud computing and issues of the computing, implementation.

Platform as a service(Paas): This computing is used as virtualization, it is used for the application development for the organizers and the developers. the platform has contains the services like computing, memory, storage, database, and many more applications. These computing services we can use to create an application for internal use or provide for sale. the Paas technology has the company's virtual infrastructure, including data centers, storage, and network supplies, plus a middle layer of software, which has been used for developing applications.

Infrastructure as a service (Iaas): It is a sort of cloud computing in which virtualized computer resources are made available via the internet. Under the iaas model, the cloud has managed and supplied infrastructures such as storage, server, and networking resources to subscriber firms. It helps the workloads faster, easier, more flexible, more cost-efficient.

Software as a service(Saas): Saas is one of three main categories of cloud computing. it is used in the IT professions, business users, and personal users are using the saas application. This saas application can be used for professional based and the entertainment purposes also. It is an advanced tool.it can be used over the internet.

Service-oriented Architecture (SOA): It is a method of converting software components into reusable services through the use of service interfaces. it is used for the collection of services. these services communicate with each other. The goal of SOA is to make an easy business and add new services. The SOA is completely based on the work seamlessly with each other.

Work flow: The cloud workflow has repetitive chores in a reliable way we can convert the manual process to web-based digital workflow this eliminates the manual work to digital work, the organisation may increase the efficiency of their workflow with the aid of the workflow, which has a much lower cost. it has been designed and hosted on the cloud by the service provider. only we have to subscribe to their services and login, it is a customized workflow and starts using it. The workflow has many computing steps that are used in the third-party packages. which has challenges in the VM (Virtual Machine) management. there are three common workflows are there the first one projects workflow which is used on the complex project on the track. and the second workflow is case workflow it is used in terms of a problem that requires any solution like any IT desk help service are there. The third type of process workflow is used to carry out a commercial procedure by performing a set of sequential actions based on user-defined criteria or guidelines. It is used to gather data rules and actions that must be accomplished in order to reach a certain business goal.

USERS: The use of the service in cloud computing is the supplier hosts and maintains the site. The cloud host is given the option of purchasing the host and maintaining the required hardware and software in their own facility. In this server we can get self-service features, it has specific service functions, and has the feature of increasing and decreasing the usage level of the service. we can use this server as a pay-to-use. the service users

only pay the amount they want to use. this result will be a substantial cost-saving method, compare to the traditional level of development on the site. It has limitless scalability. the cloud service users, it means the cloud can be easily used as business growth or periodic spikes in the service usages.
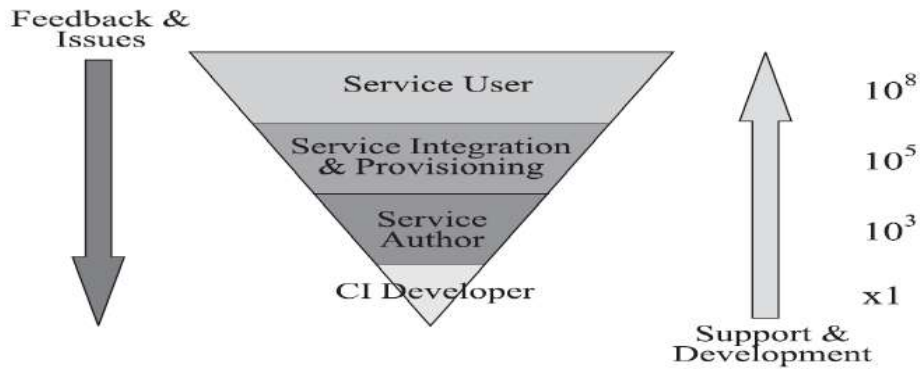
Cloud user hierarchy.

SERVICE INTEGRATION & PROVISIONING:

The service provisioning has the set of the services and managing data. this service provisioning computing is enabled by many public cloud providers it can be used as pay and used in public resources. It enterprises configure by establishing a user web portal with an inventory of preset computing resources. It has been preconfigured for use.

SERVICE AUTHOR

The service authors are developers of separate baseline services which are used in the baseline services which can be used in the form of straight or combined into the further complex services, which are aggregates and the systems by the service provisioning experts. Any of the based line operating systems or virtualization is needed for the scalability, hypervisor layer. It can be easily used and easy to learn also.

CI DEVELOPERS

CI is a continuous integration it is a process of mechanics and some automation. The CI is mostly used to identify the code defect, the developer teams mostly use the CI. They developed and integrate the system hardware, storage, networks, interfaces, administration and management of the software, communications, etc. The CI is not only the package of all of the database and software components. the automation also executes the unit test and another testing. This testing ensures that the developers' modifications haven't broken any unit tests that already exist. The automated testing framework aids in the improvement of the engineers in charge of quality assurance to execute.

IMPLEMENTATIONS:

Cloud computing has the demand across the industries for the digital transformation process in the industries.it is popular among the entrepreneurs who want to keep changing the trend in the production they can use the implementation of cloud computing. It is ensured implementation of the *IT services for any industry. It is possible to the advisory services based on cloud computing. we can implement these services into the software and the business, applications, workflow, etc. when we will implement the service we will get more benefits.*

RESEARCH USES:

The general cloud computing we have discussed the specific information of the VCL implementation service uses of the cloud computing and the information of the computing cost benefits, error issues, the types of computing, services we are getting through the computing, implementation over the service which we are using in the computing. In this research paper, we have mostly discussed the services of the benefits and the uses.

CONCLUSION:

"Cloud" computing is the result of decades of research and development in virtualization, computing on a large scale, computing for the common good, and, most recently, networking. It signifies a less information service oriented architecture end user technology overhead is significant. services for the web and software. On demand, flexibility, and a lower total cost of ownership services, and a variety of other items This The notion of "cloud" computing is discussed in this work. the difficulties it is attempting to solve, as well as related research themes, and a cloud-based implementation VCL is a type of technology. Our encounters with VCL Technology

is fantastic, and we're working on improving it. new features and functions that will make it even more cloud framework friendly construction.

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THE STUDY ON PRESENT AND FUTURE OF DATA WAREHOUSING

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ABSTRACT
Data Warehousing is trending technology with recent implementation of various architectures such as cloud. We are discussing on the present and future of Data warehousing methodology with up-coming concepts, design, process and ideas. Data warehouse can be built using high end technology for managing business information.

Keywords – Data warehouse, Data warehousing analysis, Data warehouse future, OLAP

I. INTRODUCTION

Data warehouse is relational database built on top of OLAP (On-Line Analytical Processing) design for analytical needs. Its consolidated central repository where data gets transmitted into information for business purpose. It has been vital technology in recent years. There's been several layers which takes place while transmitting this information into a business language. Its also important to maintain a data integrity and follow a data warehouse practices for all domains.

The rise to data warehousing in the 80s are just as important today as well. Until now, history reveals the benefits and drawbacks of the relational data warehouse, the NoSQL options has seen of replacement for data warehousing more recently and the cloud version technologies. Then every iteration solved a major problem but this evolution proves technology never caught up or manipulated with the data demands of the enterprise-based data warehouse.

More recently, "big data" hype has stirred healthy debate as to the relevance of the data warehouse. The emergence of No-SQL solutions in the past decade urged technology and data professionals to consider alternatives to the popular relational based data warehouse.

Understanding the history and future reveals why data warehousing is even more booming technology today. The history also shows what a modern data warehouse must deliver, the best of legacy data warehouses, the best of NoSQL and big data systems, the true benefits of cloud technologies.

The evolution of data warehouse reveals a direct path you're on today, the need for a powerful yet simple and affordable data warehouse built for the cloud to store and analyze to maintain consolidated data.

The 80s in the relational database, companies around the world used it to record what was happening in their organizations. The technology has become so important that business began using relational databases to report on and analyze the data.

These workloads were very different from the On-line Transaction Processing (OLTP) of relational database. Enterprises started to offload these functions to separate databases optimized for reporting and analytics. Hence, the data warehouse was born.

Limitations of Data warehouse –
- Getting data into the data warehouse was slow and problematic, often occurring only once a day and during off-peak hours.

- Having to plan and pay for the highest expected resource usage, when that period may only last a month, week or just one day of the year.

- These systems reached capacity quickly, impacting performance.

- Only the most technically astute could administer the data warehouse.

- The technology limited the breadth and depth of insight enterprises could act upon.

As data warehousing grew in importance in the late 90s, more and more parts of the business demanded access to data for reporting and analytics for business needs. This growing demand of data warehouse has led to increased complex systems and lot of time spent configuring, managing, upgrading and deploying an overburdened data warehouse with upcoming new technology and trends.

To try and relieve some of the load on the data warehouse, enterprises began setting up additional copies of data in the central data warehouse. This gave smaller groups inside the enterprise their own sandbox, or data mart, a subset of the data warehouse to serve a specific group or line of business (LOB).

The modern data warehousing

In recent years, four major impacts have converged to both necessitate and enable a fresh approach to data warehousing that truly enables the data-driven enterprise:

✓ **History**: Data warehousing and NoSQL technologies both paved the way for the modern data warehouse.

✓ **Data**: The amount of data generated in the last two years has eclipsed all other data created in previous times. And it's coming in all forms.

✓ **Demand**: Enterprises want the simplicity, concurrency and affordability to store, integrate and analyze all useful data by all business data users, around the clock.

✓ **Cloud**: The architecture to efficiently scale unlimited compute and storage, enabling data analytics for unlimited, data-driven insight.

The cloud revolution

Today's big revolution is cloud computing. At first, cloud was used for low-priority workloads such as testing and development. Its initial value proposition was immediate access to storage and compute without purchasing hardware.

As enterprises considered the merits of cloud beyond easy access to cheaper resources, cloud software solutions emerged. However, these first-generation, managed services used the same technology and architecture enterprises used inside their on-premises data centers. The only major change was shifting the management of the technology from the enterprise to a cloud software provider.

As the cloud matured, it became clear it was a new development platform, one with unique capabilities. Fast forward to today: The cloud is now considered a viable option, and often the default option, for a wide array of workloads, including data analytics.

The cloud transformed the notion of what's possible when architecting and building a data warehouse. Traditional vendors understandably took the most direct path by simply moving their on-premises data warehouse solutions to the cloud. The customers experienced a few benefits. However, these vendors had only scratched the surface of what's possible with a true, built-for-the-cloud data warehouse architecture.

The Benefits of Cloud Data warehousing

✓ Minimized the huge, upfront purchase of a traditional, on-premises solution.

✓ Depending on the solution, some or all of hardware and software maintenance transfers to the data warehouse vendor.

✓ The time to implement could be much less without having to purchase and install an on-premises solution

II. CONCLUSION

Architectures of systems from the past just can't be re-engineered to deliver all these capabilities. Acquiring all these qualities in a single solution is possible only with the invention of a brand-new data warehouse architecture built from the ground up for the cloud. The organization with the architecture and technology of a data warehouse built for the cloud. The data warehousing reborn in the cloud for the modern, data-driven organization.

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INVESTING IN VUCA WORLD – AN INVESTMENT FRAMEWORK

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ABSTRACT

Change is the rule of the world. "Parivartan Hi Sansar Ka Niyam Hai"– Lord Krishna Bhagvad Gita.We cannot resist changes in our surrounding.But these frequent changes in our social, politicaland economic environment creates a situation filled with "Volatility" whose repercussions are "Uncertain" which exaggerate "complexities" while taking business and investment decisions and all this leads to "ambiguity". In short, we are living in a VUCA world. VUCA is used to describe an economic climate characterized by increased turbulence, lack of predictability and higher risk of disruption. In VUCA climate, doing business is more challenging. It is arduous to make sound financial decisions and to create strategic plans for the future. Investing activities have become more precarious in times of COVID 19 crisis.Globalization has lead to integration and growing interdependence among world economies. What happensin one part of the world may severely impact the other part. For instance, emerging equity markets may get impacted due to trade war between two economic powers. Unrest in Middle East impacts oil production & crude oil prices. Liquidity infusion in developed economy may have an impact on bond prices in emerging countries. Geopolitical turmoil leads to rise in Gold prices, as it considered as a safe heaven. Financial Globalization intensifies Macroeconomic volatility. So, we should try to develop a mindset to live in VUCA world. This study focuses on investment framework which is called as "investing in a VUCA world". There has to be some framework and some kind of strengths figuring out what are the trends?, what are businesses?,how to kick businesses during crisis, how to safeguard ones business and investment in fragile environment. Better forecasting, buildingresilience, exploring and discovering opportunities ,adapting changes can help businesses in sustaining and growing in the VUCA world.

Keywords- VUCA, Crisis, COVID-19, Economy, Stock Market, Globalization.

1. INTRODUCTION TO PUTTING RESOURCES INTO VUCA WORLD:

Over the past few years, we have noticed various words in the writings of famous commercial magazines and scholars that are failing to control the world and manage the things that are happening around us. Models include fragility, turbulence, rapid change, mobility, clogging, complexity, high competition, high-speed markets, and currents. Over the years, the idea of "VUCA" has become ubiquitous as a term to cover various parts of it. Wild climate. In various posts and articles, we read, for example, about "VUCA World" and specifically about "Governance at VUCA World".

VUCA stands for Abbreviation. It represents instability, uncertainty, complexity, and ambiguity. In addition, there are several explanations, including a Harvard Business Review article by Nathan Bennett and G. James Lemoine. Let's start with the moment-by-moment feature of the four components:

Unpredictability - Volatility alludes to the speed of progress in an industry, market or the world overall. It is related with variances sought after, choppiness and brief time frame to business sectors and it is all around archived in the writing on industry dynamism.

Vulnerability - alludes to the degree to which we can unquestionably anticipate what's to come. A piece of vulnerability is seen and connected with individuals' powerlessness to get what is happening. Vulnerability, however, is additionally a more genuine quality of a climate. Genuinely unsure conditions are those that don't permit any forecast, additionally not on a factual premise.

Intricacy - Complexity alludes to the quantity of elements that we really want to consider, their assortment and the connections between them. The more factors, the more prominent their assortment and the more they are interconnected, the more mind boggling a climate is.

Equivocalness - Ambiguity alludes to an absence of lucidity concerning how to decipher something. A circumstance is equivocal, for instance, when data is fragmented, going against or too mistaken to even think about reaching clear determinations. All the more by and large it alludes to fluffiness and unclearness in thoughts and wording.

2. CHALLENGES LOOKED BY PUTTING RESOURCES INTO VUCA WORLD:

There are numerous things that may be viewed as unstable, dubious, intricate and equivocal, albeit the abbreviation VUCA has acquired foothold in the course of recent years as a method of depicting the present business world. The inexorably quick, rough and confounded scene where we work, one with new difficulties of innovation, globalization and changing labor force socioeconomics, leaves more obscure than any other time in recent memory and moves at proceeded with pace, changing the battleground out and out. Today's critical that associations can change, flex and adjust to the VUCA world around them to succeed, albeit numerous organizations feel uncomfortable at the possibility of progress. There's a great deal to conform to, sort out and consider, however fortunately, the learning advancements space doesn't stop, using new and arising types of innovation for learning to further develop how associations work.

- **Unstable - managing the effect of innovation:** The impact, use and general vulnerability of innovation has made the computerized discussion in associations a lot higher need than any time in recent memory. On one hand innovation offers open doors, opens up conceivable outcomes and advances proficiency, while its extremely problematic nature additionally represents a close consistent danger to set up organizations.

- **Dubious - worldwide abilities deficiencies:** With an expected deficiency of 40 million high-gifted specialists by 2020 (Mckinsey, June 2012), expanding rivalry for top ability and a developing emergency in regards to the absence of future pioneers, administration is an undeniable issue inside associations today.

- **Complex - expanded guideline:** Industry guideline is a significant main impetus for learning and improvement since it triggers such a lot of preparing to be appointed. Indeed, even as of late, occasions, for example, the worldwide financial emergency keep the tension on hazard, security and expanded guideline, which has a thump on impact to L&D.

- **Questionable - association wide administration:** Initiative preparing has generally been tied in with preparing pioneers, however with an absence of future innovators in the present associations, that must definitely change. The messages and abilities of administration can never again be separated from the top downwards; they should spread further and more extensive into an association, with the abilities flourishing at all levels.

3. AWARENESS OF INVESTING IN VUCA WORLD:

The business world has changed drastically in the course of the most recent couple of many years, and we presently live in an associated society where change can be speedy, steady and capricious.

Quick advances in innovation have established a climate where the web, cell phones, and web-based media are universal, and the 2008 worldwide monetary emergency has expanded the feeling of choppiness, risk and unconventionality in specific regions.

As soon as the 1970s, the U.S. financial exchanges started to battle, the 1973 oil emergency caused a downturn, and individualized computing began to become standard. A condition of transition supplanted the feeling of assurance, dependability and commonality that individuals were utilized to. This kind of climate can be portrayed utilizing the "VUCA" abbreviation, which means "Unstable," "Questionable," "Complex," and "Uncertain."

The Three Cs of Opportunities in CRISIS

| Consumer Behavior Changes | Competition Weakening | Company Specific Innovation |
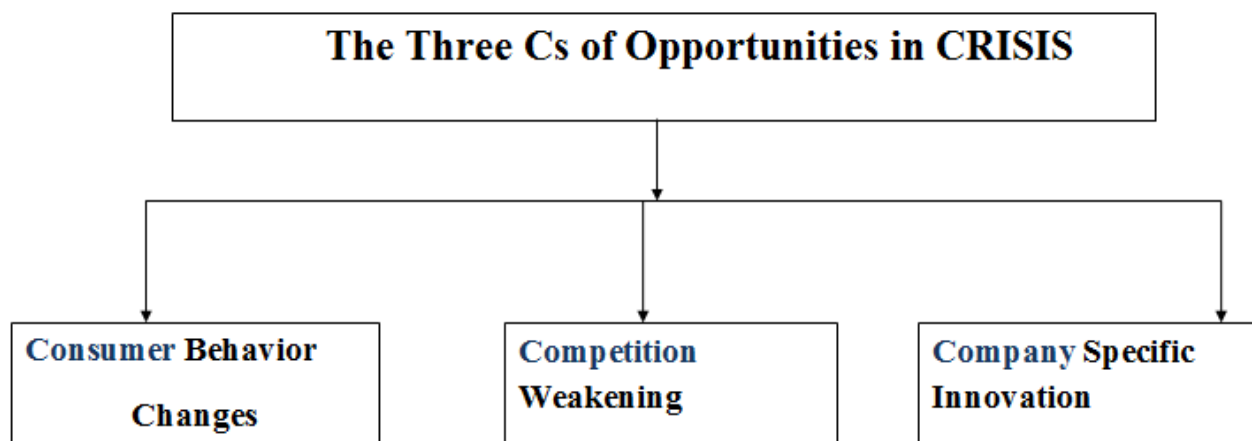
Every crisis leads to a few key consumer behaviour changes which can have significant investment implications. Rising tide lifts all boats and only when the tide recedes, do we know who has a leak. Agility and embracing of the new norms can lead to significant differentiation within the industry for a company.

Five Point Checklist for Company - Investing in VUCA world
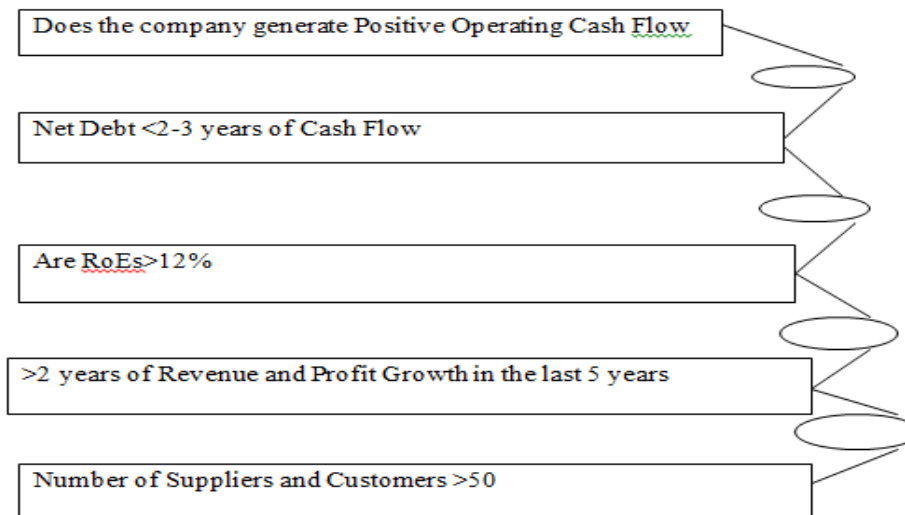
A **VUCA** climate can:

• Destablize individuals and make them restless.

• Sap their inspiration.

• Foil their vocation moves.

• Make consistent retraining and reshaping a need.

• Take enormous measures of time and work to battle.

• Increment the odds of individuals settling on terrible choices.

• Incapacitate dynamic cycles.

• Imperil long haul ventures, improvements and developments

• Overpower people and associations.

• Negatively affect inside culture.

• "Drain" inwards and establish VUCA conditions inside associations.

Assuming that your industry or association is impacted by this climate, you need to revaluate the manner in which you and your business work.

4. CONCLUSION

VUCA represents unpredictability, vulnerability, intricacy, and uncertainty. It portrays the circumstance of consistent, flighty change that is presently the standard in specific ventures and region of the business world.

VUCA requests that you keep away from conventional, obsolete ways to deal with the board and initiative, and everyday working. These are normally excessively languid and restricted to be successful in a tempestuous climate.

More current, more nimble and practical cycles are the way to overseeing in the VUCA world. Make vision, getting, clearness, and nimbleness your core values to balance the dangers of VUCA, and to make them advantageous for you.

In an industry or association that is impacted by VUCA, you have a decision. Possibly you permit VUCA to "make due," over-burden and overpower you, or you acknowledge and oversee it, so you and your group can alleviate its belongings. At the point when you choose to acknowledge VUCA, you decide to make yourself and your kin less powerless, and you enable everybody to manage wild, flighty powers.

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STUDENT SENTIMENT ANALYSIS

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ABSTRACT

In an Educational institution, overall development of the student should be a primary concern. When it comes to the overall Development, Academic achievements and Curricular Activities are not the only parameters focused. Along with them, we need to analyze the Positive Psychology and Mental well-being of the Student. Moreover, nowadays it has become important for the Teachers teaching in an educational institution to analyze the Sentiments or Emotional Quotient of the students studying in the institution. So, in this paper, an attempt is made to analyze the sentiments of the students and give a result about their attitude towards a situation. In Student Sentiment Analysis, the identification of the sentiments or emotions behind the textual feedback given will be done in the terms of Positivity and Negativity. For this, the Hybrid approach is proposed, which is the combination of Sentiment Lexicons and Machine-learning methods, to de- termine the Semantic Orientation behind the textual feedback. In short, the paper aims to present a new perspective for studying sentiment analysis of the students and the nature of language used.

Keywords — Sentiment Analysis, Emotional Quotient, Hybrid approach, Sentiment Lexicons, Semantic Orientation.

I INTRODUCTION

In this paper, we will analyze the student's attitude or re-Sentiment analysis means to analyze the emotion or at- titude of a person. It is also called as opinion of a person. It is also called as opining mining or emotional AI. The ob- jective emotional analysis to determine the attitude of the speaker, author or other topic in relation to a particular topic or context variation or emotional response to a document, interaction, or event.

In recent years, there has been an increase in the popularity of data science and analysis. In addition, the appearance of Internet everywhere offers the opportunity to access huge volumes of data, most often in written text form. For exam- ple, on social networks, many users could post comments on different educational services, or fill in questionnaires that measure their satisfaction, items that would require free answers, etc. All this data is subject to interpretation.

Sentiment analysis is a relative new research area. It is also known as opinion mining It involves application of data mining, NLP and text analysis techniques in order to identify and classify subjective opinions from different materials such as written documents sponse towards some Questions based on Emotional Quo-tient.

II BACKGROUND

In the past few years, Sentiment Analysis has been extensively studied. There are three main approaches to- wards the reported work:

A. Machine Learning-based

B. Lexicon-based Method

C. Hybrid

A. Machine-Learning based:

In machine learning-Based approach (ML), several machine learning algorithms are used. Here, two things are needed to be done: - leama predictive model using the provided training da- taset and Evaluated the performance of the learned model on the test dataset. There are two classifica- tions in ML-based approach.

1. Supervised learning methods.

2. Unsupervised learning methods.

1. Supervised machine learning approach:

Here, Training classifiers are involved, and lin- guistic features are extracted from the text. For this, we need a labeled dataset of test documents to train classifiers. Linguistic features that have been widely used for sentiment analysis includes n-grams, word representation, part of speech (POS) tags, punctuations and emotions.

A supervised learning approach to predict senti- ments from student feedback. The reported models were trained using n-gram features from the feed- back text. Naïve Baeyes, Maximum entropy and support vector machine (SVM) algorithms are used to train models.

2. Unsupervised learning methods:

Here, dataset is not required to be annotated with true sentiment labels. An unsupervised approach of sentiment analysis was proposed where Aggre- gation of the polarities of phrases containing ad- jectives and adverbs determined the polarity of the textual content. Polarity of a phrase was identified using the employment of point wise mutual infor- mation (PMI) based method. Then, a method of computing semantic orientation of unstructured text based on dependency parsing technique was presented. In that proposal, sentiment lexicons were used which were created using semi- automatic polarity expansion algorithm.

B. Lexicon-Based approach:

In Lexicon-Based approach of sentiment analysis sentiment lexicon is used to determine the polarity of a given textual content. A lexicon can also be called as a dictionary. It shows a list of words with related senti- ment polarity. Manual and automatic creation of lexicon is possible. Another lexicon-based approach proposes that determines the polarity of a word by using the dictionaries construct. Several general purpose and domain-specific lexicons have been constructed such as MPQA subjectivity lexicon, Hardvard General Inquires, Lin- guistic Inquiry and Word counts Database and many others. One limitation of lexicon-based approach is that the contextual and domain-specific semantic orientation of a word is generally ignored.

The use of lexicon was to determine the sentiment polar- ity of the feedback given by a student. The general-purpose sentiment dictionary was modified by them so that the polarity of an opinion can be determined in the context of the academic domain. They concluded that the domain-specific sentiment lexicon was better in comparison to any general-purpose sentiment lexicon.

C. Hybrid approach:

Hybrid is the combination of sentiment lexicon and machine learning methods. An example is the hybrid approach for sentiment analysis of twitter data. For la- belling training dataset with sentiment polarities, an opinion lexicon was used. To train a binary classifier to predict sentiment polarity on the evaluation dataset, they used labelled dataset. Sentiment analysis is performed at the sentence level using a hybrid approach. The basis of their approach was sentiment lexicon extended using SentiWordNetand fuzzy sets and sentiment polarity of a sentence was determined

This paper also proposes Hybrid approach that combines the use of sentiment dictionary and machine learning methods to determine the semantic orientation of a tex- tual feed provided by students.

III LITERATURE SURVEY

For working on this paper, many of the related works were studied.

RELATED WORKS:

According to Gareth Huges, Mehr Panjwani, Priya Tulcidas and Dr. Nicola Byrom, Participants reported large numbers of students experiencing mental health difficulties [1]. Uti- lization of both text mining and qualitative coding was in- cluded in a computer-assisted literature review presented by

Mika V. Mäntylä, Daniel Graziotin, Miikka Kuutila [2], with an analysis of 6,996 papers from Scopus. They found that the roots of sentiment analysis were in the research on public opinion analysis at the beginning of 20th century and. In the text subjectivity analysis was performed by the computational linguistics community in 1990's. However, the availability of subjective texts on the Web was the only reason which resulted into the outbreak of computer-based sentiment analysis.

Francis F. Balahadia; Ma. Corazon G. Fernando; Irish C. Juanatas [3], developed the teacher's performance evaluation tool using opinion mining with sentiment analy- sis. They collected the feedback from the students and iden- tified the strength and weakness of the teacher. Evaluation of the qualitative and quantitative data was done by them and they provided sentiment score of the teacher in a school. Also, a study on the combination of machine learn- ing and lexi-con-based approaches for sentiment analysis by collecting feedback from students was done by Zarmeen Nasim, Quratulain Rajput, Sajjad Haider [4]. The textual feedback, typically collected towards the end of a semester, provides useful insights into the overall teaching quality and suggests valuable ways for improving teaching meth- odology.

Saida Ulfa, Rex Bringula, Citra Kurniawan, Mu- hibuddin Fadhli [5] explored the implementation of senti- ment analysis techniques on student feedback in an online learning environment.

D Selvapandian, Thamba Meshach W., K.S.Suresh Babu, R. Dhanapal, Jebakumar Immanuel D. [6] examined the feedback concept, how students are communicated in writings and whether the articulations demonstrate positive (ideal) or negative (troublesome) and conclusions toward the topic .During this research work efficient fusion based neural network (EF-NN) classifier was introduced to predict the frequent context patterns utilized in the coed feedback dataset.

An analysis of these feedbacks were done by using machine learning techniques like Support Vector Machines (SVM), Maximum Entropy (ME), Naive Bayes (NB), and Complement Naive Bayes and Complement Naive Bayes (CNB) and applying neutral class by Mohammad Aman Ullah [7]. And, found SVM the highest performer with an accuracy of 97% by applying different preprocessing and feature extraction techniques and avoiding neutral class, which outperform state-of-art work by 2%.

IV   COMPARATIVE STUDY OF TECHNOL- OGIES:

In this paper, the hybrid approach of sentiment analysis is employed which mixes two approaches. However, the opposite sentiment analysis tools available on the net are also compared with the presented approach. This section shows the comparative details of lexicon-based approaches and other API-based service analysis. There APIs namely Test Analytics API by Microsoft, Alchemy language API and Aylien Text API were evaluated on the student feed- back dataset.

Each of the Technologies are explained below:

2.1   Text-Analysis API:

In this, a numeric-sentiment score between 0-1 is returned. Score near to 1 means that the textual feedback is positive whereas the score near to 0 means the textual feed- back is negative. For evaluating the present dataset, a trial version of API was used. API was provided with the stu- dent's feedback. A numeric score was returned instead of discrete sentiment labels. Hence, for comparison with dis- crete sentiment labels, a decision tree classification algo- rithm was used.

2.2   Alchemy Language API:

Here discrete sentiment labels are returned as {pos- itive, negative, neutral}. Here also, free subscription plan of API was used. The student's comments were passed to API. The result set were compared to manually annotated sentiment labels.

2.3   Aylin Text API:

In this, text input is required. It is analysed and re- turn the polarity labels as {positive, negative, neutral}. Here also for evaluation purpose, free subscription plan of API is used. Student feedback were passed to API and re- turned labels were compared with manually annotated sen- timent labels.

2.4   Lexicon-based approach:

Here, sentiment lexicons are used to for evaluating sentiment scores of each comment. Sentiment scorers were assigned with sentiment labels. Positive was the feedback if the score was greater than 0. Neutral was the feedback if the score of the comments was 0, and the feedback was negative if the score is negative.

2.5   Proposed Hybrid approach:

By comparing the above discussed approaches and the proposed approach. the result got was hybrid approach proved to be better than any other approach. A comparative analysis is shown in the below Table I . The presented hy- brid approach had given better results than Aylien Text API, Alchemy language API and Text Analytics API. Domain- specific features were included in this approach. This was better for the academic domain than the general-domain models used by the three APIs 2% improvement were seen in the results of presented approach as compared with Lex- icon-based approach

2.6   Comparative analysis between proposed approach and other sentiment analysis approaches.

	Accuracy	F-measure
Aylien Test API	0.67	0.76
Alchemy Language API	0.49	0.57
Test Analytics API	0.79	0.74
Lexicon-based approach	0.91	0.90
Proposed Hybrid approach (TF-IDF with domain specific lexicon)	0.93	0.92

Table 1.1. Comparative analysis between proposed ap- proach and other sentiment analysis approaches.

V   RESEARCH METHODOLOGY
PROPOSED RESEARCH APPROACH

Implementation Approaches:

To implement the concept, the methodology given in the fig. is used. The methodology classifies the Sentiment Po- larity as Positive, Negative and Neutral.
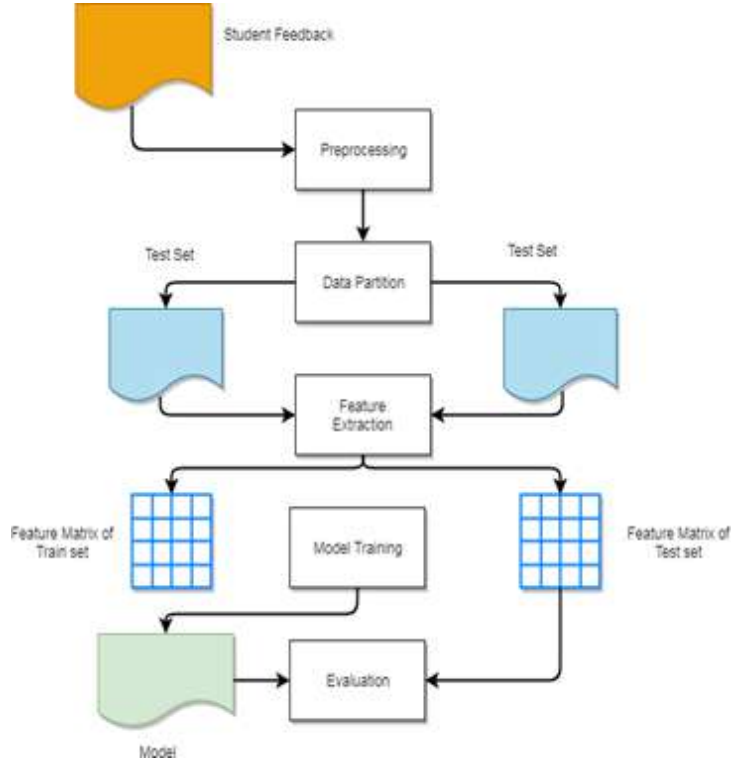
Fig, 5.1. Methodology of Student Sentiment Analysis Sys- tem

The process workflow is further divided into following sub-sections:

1. **Dataset Description**: Here, a Dataset used in this system comprises of 2000+ positive words and 4000+ negative words. This was classified and la- belled as Positive and Negative.

2. **Pre-processing:** Pre-processing include the follow- ing:
i. **Punctuations:** Removal of Punctuations, numbers and other special characters as these characters do not carry useful infor- mation related to sentiment analysis.

ii. **Tokenization**: Tokenization is the process of splitting text stream into a list of words.

iii. **Case Conversion:** After tokenization, words were transformed into lower case.

iv. **Stop words:** In natural language pro- cessing, words that are frequently used such as helping verbs, prepositions, articles are termed as stop-words. Stop-words gen- erally do not provide any useful infor- mation and therefore were removed from the feedback text.

3. **Data Partition:** For training and evaluation pur- poses, the manually labelled dataset of students' feedback was randomly split into train set and test set. 70% of the dataset was used for training and the remaining dataset was used for the evaluation purpose.

4. **Feature Extraction:** After data splitting, feature extraction was applied on both training and testing datasets. During the feature extraction stage, the pre-processed text was converted into a numerical feature vector.

5. **Model Training:** After the extraction of fea- tures from the train and test dataset, learning algorithms were applied for training model.

VI   RESULTS
Here, an attempt was made to create a web application which will be used to analysis the Sentiments of a student with the help of few Emotional-Quotient questions. Senti- ment Analysis is also called as Opinion

Mining. This refers to the techniques and processes that help to retrieve infor- mation about how a person react to a instance.

This system is significant for all the educational institutions where the overall development of the personality of a stu- dent is the primary concern. Here, the teachers can analyse the overall Sentiment of a Student and can help them to inculcate positive attitude towards the life along with their academic progress.

In educational institutions, Positive Psychology of students is very important. There we can use the Student Sentiment Analysis System where the attitude of the students is ana- lysed.

VII CONCLUSIONS

This Student Sentiment Analysis system has made a way to analyse the sentiments of the students at any educa- tional institution. Here, Hybrid approach was used for per- forming sentiment analysis on student feedbacks. Employ- ment of Machine learning methods along with the senti- ment lexicons was described in this presented approach. Investigation of other APIs available for Sentiment Analy- sis were also done and the results were compared with the presented Hybrid approach. The proposed approach, where the Sentiment Lexicons were combined with the use of ma- chine learning techniques, was capable of predict the Sen- timent of the Textual content even in the absence of opinion words in the Lexicon. Semantic Orientation behind the tex- tual feedback is determined.

In this paper, an attempt was made to the analyse Senti- ments of a student with the help of few Emotional-Quotient questions. Sentiment Analysis is also called as Opinion Mining. This refers to the techniques and processes that help to retrieve information about how a person react to a instance. This system is significant for all the educational institutions where the overall development of the personali- ty of a student is the primary concern. Here, the teachers can analyse the overall Sentiment of a Student and can help them to inculcate positive attitude towards the life along with their academic progress. In educational institutions, Positive Psychology of students is very important. There we can use the Student Sentiment Analysis System where the attitude of the students is analysed.

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IMPACT OF WORK FROM HOME (WFH)

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ABSTRACT

Work from Home (WFH) is not a new/sudden concept. The COVID-19 Pandemic brought back the concept into regulation. It has been temporarily imposed by the Indian government on almost all the sectors. This research paper explores the impact, advantage, disadvantage & struggle of employees working from Home. The research explains what people feel about regularizing WFH for ladies. It helps understand if employees are facing more workload, the disturbances they face during WFH & the excuses they give to avoid work. The research also states the impact of WFH on employee's mental and physical health.

1. INTRODUCTION.

When an employee does his job from home instead of working from office, it is called as WFH. It is an approach where the employee does not have to be physically present at location. The impending work can be done from remote areas with the help of internet. WFH is a concept where employees work from their individual home instead of gathering at a single workplace. It is a concept much needed in times of a Pandemic (Covid-19). It saves the person from unemployment & from getting affected by the Corona virus. The main goal of the Indian Government through WFH is less physical contact. Information Technology has made WFH simpler. The work that takes place at offices is done at remote places because of good internet connection. The concept & result of WFH has spread like wildfire. Many Companies are trying to regularize WFH as it saves the company's money. In such pandemic times, the family members of the employee are grateful for having them at home & safe in front of their eyes. According to some companies, the productiveness of the employee has increased when compared to work from office. According to the employee his/her productiveness has increased because it saves his/her time of travelling to office. Some people think there should be 4 working days & 2 WFH days. This helps balance the work environment. Work from office is gradually losing its importance because of WFH. Employees are realizing that WFH provides all the facilities that work from office can provide. Plus, employees get to be with their families. The motive behind the organization is adapting working from home concept is to reduce the expenses such as "rent, maintenance, computers, telephones, offices, utilities, equipment, etc."

1.1 TIPS an employee must follow during WFH.

1. Proper work schedule must be maintained.

2. Manager/ HR must be informed if breaks are being taken for personal reasons.

3. A proper work setup must be installed at home in order to have office like environment.

4. Make sure your devices are charged in case of power cut-out.

5. Keep things balanced. Do not over work. Take proper breaks.

1.2 TIPS an organization must follow during WFH.

1. If an employee does not have proper furniture, make sure that they get the required things. (Table & Chair).

2. Make sure proper work setup is arranged (PCs, Laptop).

3. Make sure to reimburse for internet & electricity bill.

4. Make sure employee follows all the rules & regulation related to WFH policy.

1.3 Advantages of WFH.

1. There is more work life balance.

2. Many employees claim they find more quiet or friendly atmosphere at home which helps to concentrate on the work as well as they can complete the assigned work quickly.

3. Lots of savings are happening with respect to cost of office infrastructure such as spaces, electricity bills etc.

4. Employee doesn't need to worry about reaching the office in time.

5. Work from home enables more autonomy in job which helps with more productivity.

6. With healthy working conditions it helps companies to attract and retain highly skilled & hard-working employees.

7. WFH enables you to be present at home during an emergency.

1.4 Disadvantages of WFH.

1. Not every technical issue could be solved remotely.

2. Companies claim that employees working in the office have a higher chance to be known and get promoted than employees which working remotely from home.

3. Another drawback of working from home for the employees are lacking opportunity to have informal communication with their colleagues.

4. Security problem when data is being transferred which cannot be monitored easily.

5. Not every company can adapt the concept of work from home. Communication problem between employees can be problematic for a job.

6. The lack of face-to-face interactions with co-workers have significantly reduced while working away from the office.

7. The avoidance of work is the result when someone's work is poorly monitored.

2. REVIEW OF LITERATURE.

Though, experimental results apply to a small group of individualities and aren't completely transmittable to the whole population of workers. Our donation to the literature is twofold. First, we probe the effect of working from home on workers. Thus, we probe the influence of working from home on work trouble. From a theoretical point of view, the impact of working from home on workers' work trouble is nebulous. It's delicate to cover a worker's trouble at home, especially when sometimes being intruded by private liabilities and family members. As enterprises have smaller possibilities to cover their workers, working from home might produce shirking (neglection of work) and hence results in lower individual work trouble. Thus, workers, who work from home, might have a advanced commitment, and therefore respond with "redundant" work trouble. Our empirical results show that working from home increases workers work trouble. Substantiation on the productivity goods of Work from home is inconclusive but seems to suggest positive goods more frequently than negative goods. Study plant that Work from Home is helping the workers to balance and separate their office work with their routine work. The study also suggests that work from home saves time, increases the productivity, finishes the targets on time and helps the workers to give time for their life. A connection between home and office exists. Study also reveals that workers perform best when they achieve good work life balance and are less stressed-out. Also, the literature states that workers need to have a suitable job design for working from home. Working from home is most suitable for workers, who substantially have knowledge- grounded tasks, many face-to- face connections. Utmost of the studies concentrate on assaying benefits and downsides of working from home or dissect the influence of working from home on work- family balance.

2.1 Problem background.

It is getting common in many organizations to offer their employees the option to work from home for various reasons like the reducing office rent costs, balancing work life for the employees and saving time on commuting. Working from home has gained its importance during the period of Covid-19 pandemic as many countries using preventions such as physical distancing, masks to stay safe during pandemic. It is important to find out whether working from home has any impact on productivity whether the impact is positive or negative.

2.2 Problem formulation.

The basic research questions are:

*   Is working from home have any influence on productivity of the employees?

*   Are employees getting decreased salary?

*   Should WFH be regularized for women?

*   Are working hours have increased in WFH compared to WFO?

3. OBJECTIVES OF THE STUDY.

1. To understand the change in working hours of the employee due to WFH(Increased/Decreased)

2. To assess the change salary, incentives & bonus of the employee due to WFH. (Increased/Decreased).

3. To study whether the employee receives home allowance. (Electricity bill, Internet Bill).

4. To understand if people are ready for regulation of WFH.

5. To assess why people, prefer/don't prefer WFH.

6. To assess the productiveness of the people.

7. To assess the workload of employee during WFH. Do they feel relaxed or pressures or both?

8. To study the different types of disturbances faced during WFH.

9. To understand the excuses employee usually give to avoid work in WFH.

10. To understand if WFH is the better option for an employee's mental & physical health.

11. To know the opinion of repliers towards work from home.

4. RESEARCH METHODOLOGY

The study is purely grounded on the responses of 30 repliers working from home belonging to different sectors during COVID 19. Data is collected during April-May 2021, the time frame when all the workers are impelled to work from home. All the repliers of this study are working from home for 1 time. Secondary Data has been also collected from colourful journals, websites, and review reports.

5. DATA ANALYSIS AND FINDINGS

1. The study includes 76.7% of females and 23.3% percent of males.
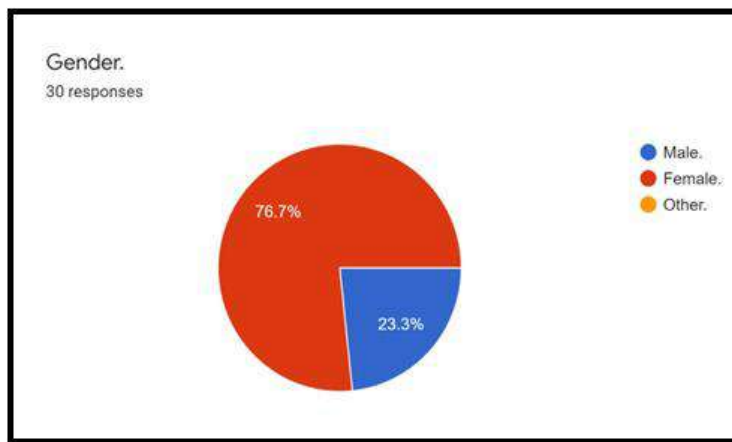
2. Following 2nd chart describes the age group of employees. 10 % each belong to the age group of 21, 22, 26 & 27 years, 20% belong to the age group of 23 years, 3.3 % each belongto the age group of 24, 25, 29, 32, 34, 35, 41 & 56 years, 6.7% belong to the age group of 28 years.
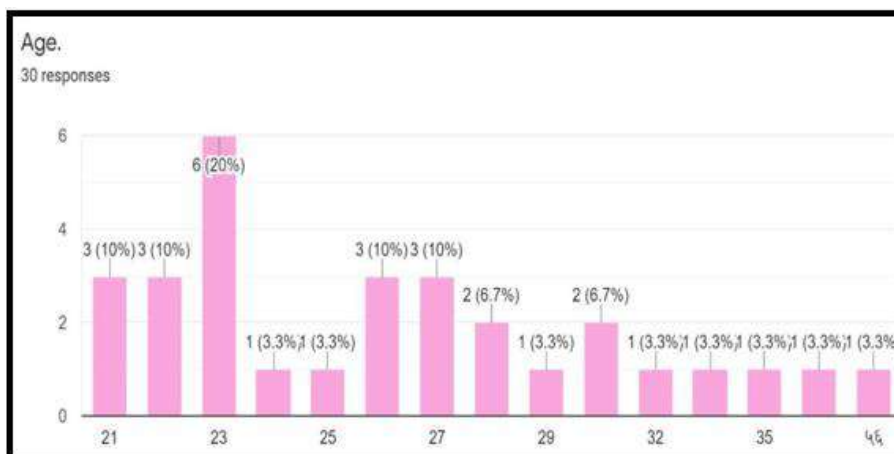
3. Among 30 respondents, only 5 to 6 respondents say that their work timings have increased in Work from home. They say that officially their work timing is 9 to 6 but unofficially it sometimes goes up to 9 to 8.

4. Among 30 respondents, 10% respondents say that their salary has been decreased whereas 90% people say that they received their full salary.
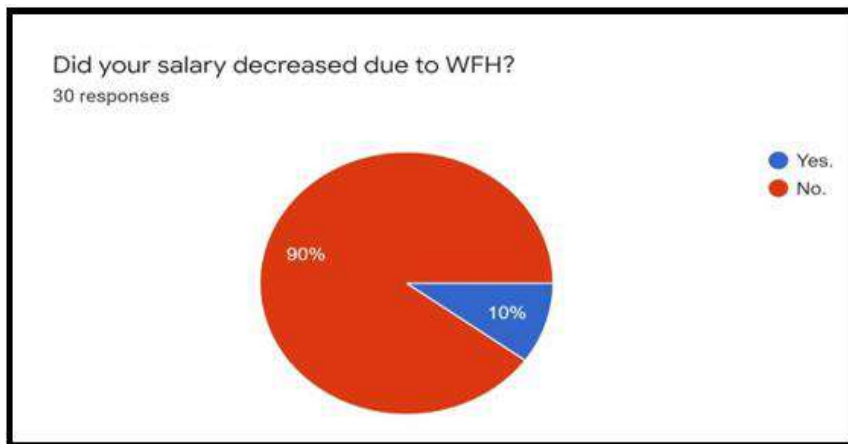
5. With regards to home allowances received, 15 respondents claim that their company pays their Internet Bill, 2 respondents claim that their company pays their electricity bill as well as Internet Bill & 13 respondents say that they do not get any home allowances.

6. Among 30 respondents, 10 people claim that they did not receive their usual bonuses & incentives.
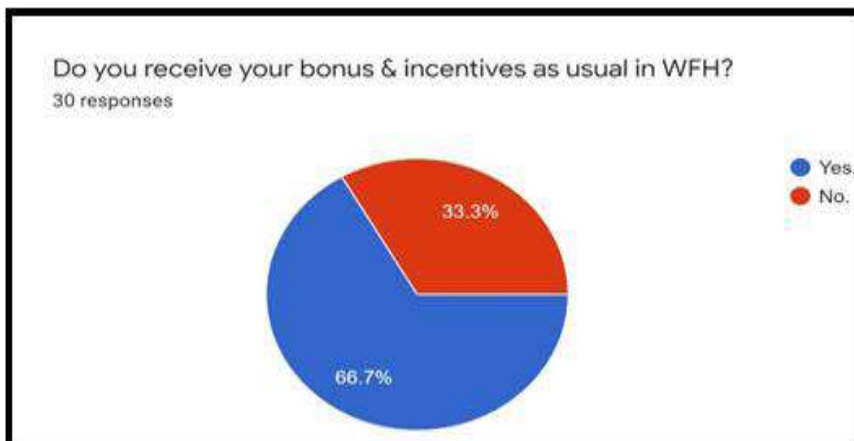
7. Out of 30 respondents, 25 respondents say that because of WFH they got to spend more time with their family whereas 5 respondents say the opposite. According to the 5 respondents, due to WFH their workload increased resulting in overtime.
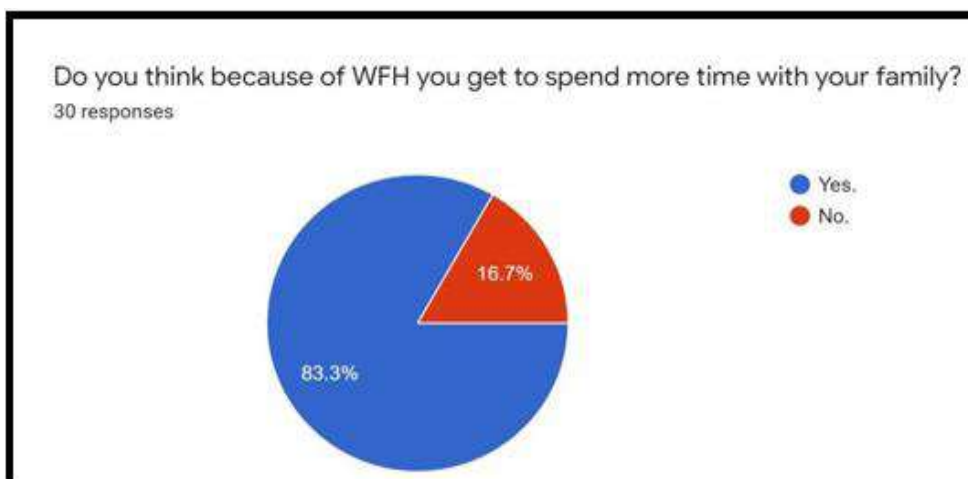
8. 10 respondents out of 30, say that WFH should not be regularized. Rest says there are more advantages in WFH.
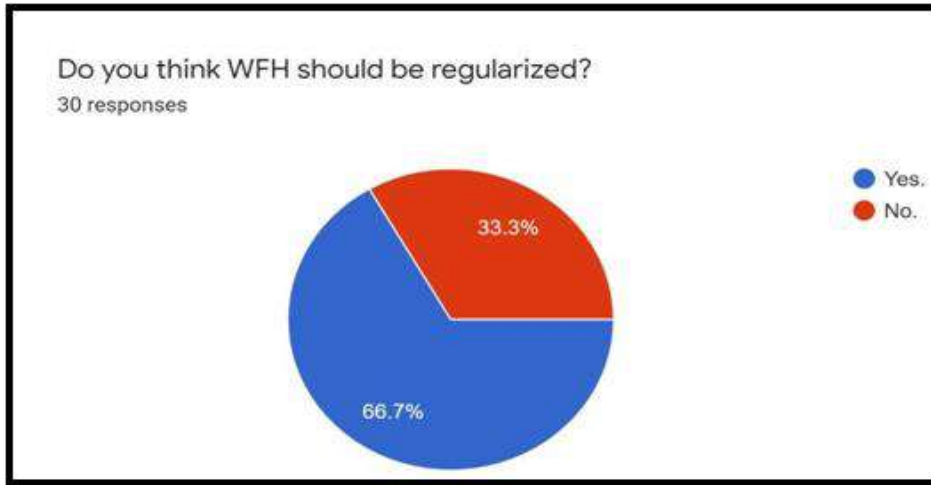
9. 8 respondents out of 30, say that people are not being productive in WFH.
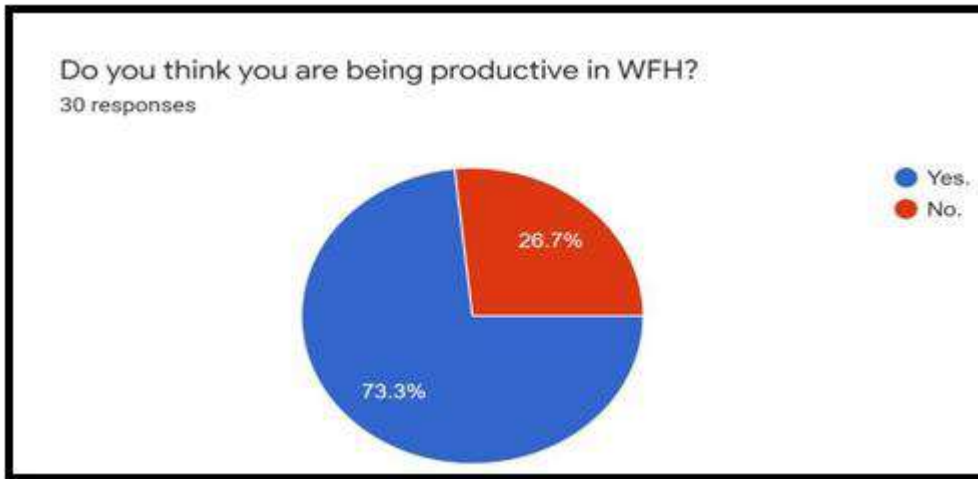
10. Among 30 respondents, 20 respondents claim that they have been facing more workload due to WFH.
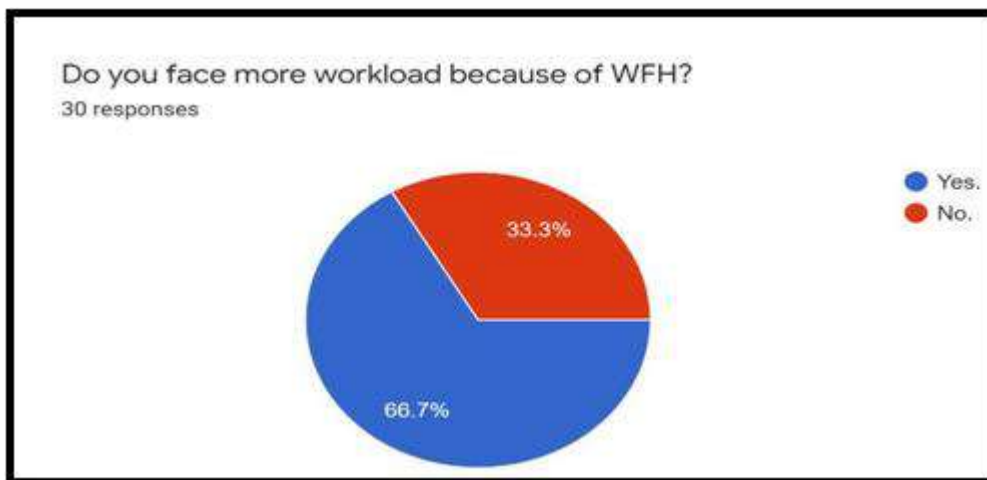
6. RESULTS

This section provides our empirical results. Workers working from home performed significantly better than comparison workers working in the office but were less likely to be promoted than analogous- performing peers working in the office. They attributed this difference to having a quieter terrain at home. WFH workers also worked more twinkles per day than the work from office group because they didn't have to swap, took shorter breaks, and took smaller sick days. Despite director's fears, working from home had no impact on the quality of

calls. Still, working from home had a negative effect on creation openings. Tentative on performance, workers working from home were less likely to be promoted than their office- grounded peers. This was probably due to reduced training openings and lower face-to- face contact with platoon leaders.

7. CONCLUSION

It can be concluded that working from home can have positive or negative impact over workers. It completely depends how a hand adjusts or copes up with it. Maturity of the population feel that WFH should be formalized for numerous reasons. Whereas some of the hand feel that Office terrain is important for productivity. The debate goes on. But the conclusion drawn from this exploration is that one must work according to their own comfort zone so that further work is done. A hand must feel comfortable while doing his/ her job. Workers working from home reported having a more positive station and lower prostration from work than the comparison group. Mental/ Physical health is also a factor that must be considered. Hand should always have a happy work terrain, be it home or office.

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ARTIFICIAL INTELLIGENCE UNDERSTANDING LIFES

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ABSTRACT

Man-made consciousness, the advanced PC has capacity to control robot to perform normally connected assignments with insight. The term is applied to the creating project frameworks blessed with the cycles of scholarly quality of people, like the motivation to capacity, find importance, sum up, or gain as a matter of fact which occurred in past. Since the advanced PC improvement during the 1940s, it has been shown that PCs can be customized to perform exceptionally complex errands as, for instance, found evidences for numerical hypotheses or chess playing - with extraordinary capability. All things considered, in spite of proceeding with propels in PC handling memory limit and speed, there are as no projects yet that can match adaptability of human over more extensive spaces or in requiring errands for regular information. On the following hand, a few projects have acknowledged the presentation levels of human specialists and expert in performing explicit assignments, so AI in this restricted sense found in applications as various as clinical analysis, PC motors search, and penmanship or voice acknowledgment.

WHAT IS INTELLIGENCE

Everything except the easiest conduct of human is portray to insight, while even the most convoluted conduct is never taken as a knowledge. What is the distinction? Think about the digger wasp conduct, Sphex ichneumon. At the point when the return female wasp to her with food tunnel, she first stores it on the edge, checks for the interloper inside her tunnels, and really at that time, if the unmistakable coast, conveys her food varieties inside. The genuine qualities of the instinctual wasp's behaviorism uncovered assuming that the food varieties are moved a couple inches aways from the doorways to her tunnel while she is inside: - on arising, the entire method will be rehash by her as regularly as the food is dislodged. Insight obviously missing on account of Sphex should incorporate the capacity to adjust to new conditions.

Clinicians much of the time don't describe insight of human by only one attribute yet by the blend of numerous different capacities. Research in man-made brainpower has zeroed in mostly on the accompanying part of knowledge: - learnings, explanations, settling's, discernments, and utilizing dialects.

Keywords: - Ai learning, reasoning , problem solving ,perception , language, robot hand's dexterity, deepfake – bringing picture to life, ai-generated synthetic text, gamification of memories, solving three-body problem,upside down reinforcement learning, explainable ai .

INTRODUCTION

From siri to self driving cars, artificial intelligence ai is progressings rapidly, While science fictions often portrays AI as robot with as human characteristics, AI can encompasses anything from Google search algorithm to IBM Watson to autonomous weapon.

AI today is properly known as narrow Artificial intelligence or weak Artificial intelligence), in that it is design to performs a narrow task example:- Only facial recognition or only internet searches or only driving a car). However, the long term goals of many researcher is to create general Artificial intelligence AGI or strong Artificial intelligence. While narrow AI may outperforms human at whatever its specific tasks is, like solving equations or playing chess, AGI would outperforms humans at nearly every cognitive tasks.

LEARNING

There are quantities of various types of learnings as applied to man-made reasoning. The least complex is advancing by experimentation. For instance, a basic PC program for tackling mate-in-one chess issues may attempt moves indiscriminately until mate is found. The program may then store the arrangement with the position so the following time the PC experienced a similar position it would review the arrangement. This straightforward remembering of individual things and systems known as repetition learning-is somewhat simple to carry out on a PC. More testing is the issue of carrying out what is called speculation. Speculation includes applying previous experience to closely resembling new circumstances. For instance, a program that learns the previous tense of standard English action words methodically can not create the previous tense of a word, for example, hop except if it recently had been given bounced, though a program that can sum up can become

familiar with the "add ed" rule thus structure the previous tense of hop in light of involvement in comparative action words.

REASONING

To reason is to attract deductions suitable to the circumstance. Surmisings are named either rational or inductive. An illustration of the previous is, "Fred should be in either the exhibition hall or the bistro. He isn't in the bistro; consequently he is in the historical center," and of the last option, "Past mishaps of this sort were brought about by instrument disappointment; subsequently this mishap was brought about by instrument disappointment." The main distinction between these types of thinking is that in the rational case the reality of the premises ensures the reality of the end, though in the inductive case the reality of the reason loans backing to the end without giving outright confirmation. Inductive thinking is normal in science, where information are gathered and provisional models are created to depict and anticipate future conduct until the presence of strange information powers the model to be modified. Insightful thinking is normal in science and rationale, where elaborate constructions of obvious hypotheses are developed from a little arrangement of fundamental adages and rules.

There has been impressive achievement in programming PCs to draw inductions, particularly insightful derivations. Nonetheless, genuine thinking includes something other than drawing deductions; it includes attracting derivations applicable to the arrangement of the specific errand or circumstance. This is probably the most difficult issue facing AI.

PROBLEM SOLVING

Critical thinking, especially in man-made brainpower, might be portrayed as a deliberate inquiry through a scope of potential activities to arrive at some predefined objective or arrangement. Critical thinking techniques partition into particular reason and broadly useful. A unique reason technique is tailor-made for a specific issue and frequently takes advantage of unmistakable highlights of the circumstance in which the issue is implanted. Interestingly, a universally useful strategy is relevant to a wide assortment of issues. One broadly useful method utilized in AI is implies end examination a bit by bit, or gradual, decrease of the distinction between the present status and the last objective. The program chooses activities from a rundown of means-on account of a straightforward robot this may comprise of PICKUP, PUTDOWN, MOVEFORWARD, MOVEBACK, MOVELEFT, and MOVERIGHT-until the objective is reached.

Numerous assorted issues have been tackled by man-made brainpower programs. A few models are tracking down the triumphant move (or grouping of moves) in a table game, concocting numerical evidences, and controlling "virtual items" in a PC created world.

PERCEPTION

In discernment the climate is checked through different tangible organs, genuine or counterfeit, and the scene is disintegrated into isolated articles in different spatial connections. Examination is muddled by the way that an item might seem different relying upon the point from which it is seen, the bearing and power of enlightenment in the scene, and how much the article appears differently in relation to the encompassing field.

As of now, fake insight is adequately very much progressed to empower optical sensors to distinguish people, independent vehicles to drive at moderate paces on the open street, and robots to wander through structures gathering void soft drink jars. Perhaps the earliest framework to coordinate discernment and activity was FREDDY, a fixed robot with a moving TV eye and a pincer hand, developed at the University of Edinburgh, Scotland, during the period 1966-73 under the heading of Donald Michie. FREDDY had the option to perceive an assortment of items and could be told to gather basic curios, like a toy vehicle, from an irregular load of parts.

LANGUAGE

A language is an arrangement of signs having importance by show. In this sense, language need not be restricted to the expressed word. Traffic signs, for instance, structure a minilanguage, it involving show that ⚠ signifies "peril ahead" in certain nations. It is particular of dialects that semantic units have significance by show, and phonetic importance is totally different based on the thing is called normal significance, exemplified in proclamations, for example, "Those mists mean downpour" and "The fall in pressure implies the valve is failing."

A significant quality of undeniable human dialects rather than birdcalls and traffic signs-is their usefulness. A useful language can figure out a limitless assortment of sentences.

It is moderately simple to compose PC programs that appear to be capable, in seriously confined settings, to react fluidly in a human language to questions and proclamations. Albeit none of these projects really gets language, they may, on a fundamental level, arrive where their order of a language is undefined from that of an ordinary human. What, then, at that point, is associated with real agreement, if even a PC that utilizes language like a local human speaker isn't recognized to get it? There is no all around settled upon reply to this troublesome inquiry. As indicated by one hypothesis, whether or not one comprehends relies upon one's conduct as well as on one's set of experiences: to be told comprehend, one probably scholarly the language and have been prepared to have one's spot in the semantic local area through association with other language clients.

ROBOT HAND'S DEXTERITY

OpenAI's effectively prepared a robot hand called Dactyl that took on to this present reality climate in addressing the Rubik's 3D square. The robot was totally prepared in the recreated climate however the option to move the information into another circumstance effectively had.

To upgrade the mastery, OpenAI utilized programmed area randomisation method and worked on the abilities of hand for settling the Rubik's block. Despite the fact that Dactyl addressed the block, the key important point was the capacity to convey brings about the climate that the robot was not prepared for.

DEEPFAKE – BRINGING PICTURE TO LIFE

Samsung, in May, made a framework that can change facial pictures into video successions. They utilized the generative ill-disposed organization (GAN) to make profound phony recordings just by accepting one picture as info. Scientists from Samsung involved high-devotion normal picture amalgamation for empowering ML models to resound sensible human articulation.

AI-GENERATED SYNTHETIC TEXT

OpenAI, in February, delivered a little model called Generative Pre-Training (GPT) to produce manufactured text naturally. The firm in the end delivered the full form of the model, GPT-2, in November. On composing a couple of sentences, the model impeccably picked the unique circumstance and produced message all alone.

The model was prepared with more than 8 million website pages, bringing about making content that was hard to decide if it was a conventional or manufactured text.

GAMIFICATION OF MEMORIES

Google's DeepMind changed the manner in which support learning works to gamify memory. To permit AI specialists to settle on better choices in the present, they utilized Temporal Value Transport (TVT) for sending illustrations from what's to come. This permitted the specialist to comprehend the drawn out outcomes of choices that can be taken as of now. Albeit the technique was completed in a game, it was phenomenal in the AI scene.

SOLVING THREE-BODY PROBLEM

The three-body issue was one of the longest-standing dilemmas in established researchers. Exactly recognizing the future place of articles has various use cases, particularly in the space, deciding the place of superb bodies permits researchers their examination. The specialists of Edinburgh utilized neural organizations to pinpoint the future area, along these lines, opening up the entryway for expanding it into n-body issue.

UPSIDE DOWN REINFORCEMENT LEARNING

A group from Swiss AI Lab presented another approach calling it topsy turvy support learning. They effectively did support learning as regulated learning. This permitted the group to give awards as info, which is in opposition to how the customary support learning work.

Such a procedure likewise empowered them to mirror and prepare the robot for completing difficult errands just by mimicking before a machine. The order based philosophy helps ML models in speeding up the preparation cycle, accordingly diminishing the time needed in the AI work processes.

EXPLAINABLE AI

Artificial intelligence is taking extraordinary steps, however understanding the approaches inside the black box is critical for bringing pushed. Subsequently, various organizations delivered administrations to permit organizations to underline the excellent elements that lead to results from their AI models. Interestingly, firms can clear the cloud and acquiring bits of knowledge into the manner in which the discovery works. Albeit one can't yet acquire every one of the parts of an end from models, it plays a more noticeable part to play in democratizing AI.

CONCLUSION

In this paper I have represented what is Artificial intelligence and introduction to artificial intelligence and the types such as Learning , Reasoning , Problem solving , Perception , Language and what changes artificial intelligence done over the las period like – Robot hand's dexterity,Deepfake -bringing picture to life ,AI-generated synthetic text,Gamification of memories,Solving three-body problem,Upside down reinforcement learning,Explainable AI . AI making lifes of people easier and effective by validating securities and analyzing requrement of the user and suggesting the user which makes the profit of the online markets line amazon,flipkart etc.

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HOW IMPLICIT ASSUMPTIONS ON THE NATURE OF TRUST SHAPE THE UNDERSTANDING OF THE BLOCKCHAIN TECHNOLOGY

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ABSTRACT

The job that trust plays in blockchain-based frameworks is perceived and depicted in different habits. Blockchain innovation is told empower and set up trust just as to divert it, substitute for it, and to make it outdated. To do as such, this paper diagrams the most unmistakable portrayals of the arrangement of applicable trust connections inside blockchain-based frameworks and follows their foundations to various basic presumptions on the idea of trust.

Keywords Trust: Trustworthiness, Blockchain, Bitcoin, distributed ledger technology

INTRODUCTION

The blockchain innovation is told empower and build up trust just as to divert it , to fill in for it , and to make it out of date . While certain portrayals of the job of confidence in blockchain-based frameworks end up being predominant in the talk, no pleasant and extensive one has championed itself right up 'til today. This paper speculates that the divergences of the portrayals generally lay on certainly sticking to various records of trust. As Hardin notes all the more for the most part with respect to talks around trust, if they «are to be perceived, should indicate all the more barely how mean to utilize the term.» Thus, the objective of this paper is to diagram how the current absence of a mutual perspective of the term «trust» prompts veering understandings of

Moreover, it shows how this absence of normal agreement discourages researchers from alluding to each other definitively in the talk on blockchain innovation. To do as such, this paper diagrams the most unmistakable portrayals of the arrangement of pertinent trust connections inside blockchain-based frameworks and follows their foundations to various fundamental suppositions on the idea of trust

Depictions of the Role of Trust in Blockchain-Based Systems :

The Bitcoin Whitepaper doesn't simply layout the specialized reinforcements of blockchain innovation yet additionally gives a translation of the job of confidence in it. Nakamoto portrays the blockchain as without trust, I. he recommends clients can utilize it «without depending on trust» . In any case, as the talk develops, the idea of without trust innovation is frequently utilized in a smaller sense and alludes just to one of two things.

From one viewpoint, the portrayal is utilized to propose that the need to either trust conditional counterparties or mediators disappears when utilizing blockchain innovation. Without the utilization of blockchain innovation, clients need to trust outer elements to play out specific activities later on,, e. Interestingly, blockchain innovation vows to foreordain such activities. It empowers clients to make self-authorizing agreements and utilize a money that is «produced at an anticipated rate, with a greatest number preestablished» .

Interestingly, the portrayal of blockchain as an innovation in view of confidence in code, math, or calculations proposes that blockchain-based frameworks don't kill the need to trust by any stretch of the imagination. Very much like backers of the portrayal of blockchain as a without trust innovation, promoters of this portrayal likewise expect that trust becomes out of date in certain areas. The third portrayal accepts that the job of confidence in blockchain-based frameworks contrasts from trust in different arrangements in that it is put in organizations of entertainers rather than individual entertainers . For this prime supporter of LinkedIn Reid Hoffman instituted the term «trustless trust.» He recommends that the arrangement of trust connections inside blockchain-based frameworks involves connections of an original sort in which no individual can be distinguished as the sole legal administrator .

One more usually utilized term to depict this peculiarity is «distributed trust.» This understanding comprises the reason for Werbach's original book The Blockchain and the New Architecture of Trust , possibly the most thorough work on the issue up to this point. In view of the comprehension of blockchain innovation as a facilitator of conveyed trust, Werbach reveals insight into the distinctions between the job of confidence in blockchain-based frameworks and the job of confidence in other dominating arrangements in the public arena.

Diverging Assumptions on the Nature of Trust:

The term «trust» is regularly inadequately characterized in distributions talking about the job of confidence in blockchain-based frameworks. As displayed in the accompanying, one justification for the development of wandering perspectives on the job of confidence in blockchain-based frameworks is the adherence to various

records of trust. This segment presents divided just as clashing presumptions between different records of confidence to show how involving the term somehow changes the comprehension of the job of confidence in blockchain-based frameworks. , certain inspirations like altruism towards the trustor , typified interest, I.

, the possibility that trusting requires «a obligation to acting to some degree mostly in light of a legitimate concern for the truster since they are the interests of the truster» , the suitability of explicit responsive mentalities like inclination sold out if there should arise an occurrence of lost trust , or the need of the trustor to see «a legal administrator as ethically committed, submitted, or responsible in fitting ways» . The necessities of both more and less requesting records of trust are generally examined concerning relational settings, I. Records of trust that consider different substances, potential legal administrators are normally characterized by illustrating their uniqueness from the relational trust as the underlying and essential idea. , records of confidence in gatherings and associations , records of confidence in legislatures , or records of confidence in mechanical frameworks .

Less requesting records of trust in view of levelheaded assumptions are all the more promptly relevant to non-relational settings. Nonetheless, in blockchain-based frameworks, in any event, concerning the connections among human entertainers, it isn't certain if a requesting record of relational trust can be applied. This is because of explicit specialized elements of open and permissionless blockchain-based frameworks in which clients are addressed through advanced keys. The subsequent pseudonymity has the impact that clients don't really know with whom they are locking in.

This nonidentification obliges an open approval process that doesn't rely upon barring entertainers that don't ex-bet end up being reliable. Along these lines, assuming the relationship of the two contracting parties or among clients and excavators is portrayed as a relationship in view of trust, a less requesting record of trust that doesn't need a «grounding in explicit earlier or ensuing associations with those others» should be applied. Hardin , who advocates a really intense record of trust, dismisses the possibility of such summed up legal administrators. He affirms that the individual suggestions don't actually guarantee «that one trusts those others, yet just that one has generally hopeful assumptions for having the option to construct fruitful associations with certain, maybe various, others ».

Taking either side in the discussion on what qualifies as an example of trust is unequivocal for how connections among various human entertainers in blockchain-based frameworks are to be portrayed. Assuming a really difficult record of relational trust is applied, the connections between executing parties just as among clients and excavators can't be viewed as connections in light of trust. All things considered, the individual positions could be portrayed as simple decisions of unwavering quality. Taking this viewpoint, the portrayal of blockchain-based frameworks as sans trust gives off an impression of being substantially more legitimate, without contacting the issue of whether and, assuming this is the case, where precisely weaknesses and vulnerabilities disappear.

Assuming managing the numerous weaknesses and vulnerabilities existing in blockchain-based frameworks requires just simple decisions of dependability, then, at that point, this focuses to the legitimacy of the contention that trust assumes a lesser part in blockchain-based frameworks contrasted and different arrangements. However, if blockchain-based frameworks are for sure totally sans trust still needs to be shown. If, actually, a seriously requesting account is applied, it is problematic whether such substances fit the bill to comprise a legal administrator. For example, Hardin's record, which centers around typified interest, is incoherent with so much elements as legal administrators.

As indicated by his record, the trustor would be needed to «know that the specialists or the organization follow up for sake since they wish to keep up with their connections with» them . For bigger foundations, he contends that this is «generally not possible». Hawley makes the counterargument that the differentiation between a trust and simple decisions of dependability matters at the singular level yet less so at the degree of aggregate elements. The solution to whether mechanical relics can establish legal administrators If a really exhausting record of trust that surpasses decisions of dependability in view of normal assumptions is applied, cases of confidence in innovation must be perceived as confidence in the human entertainers behind the innovation . Mechanical ancient rarities themselves don't have goals or inspirations concerning the entertainers who evaluate their unwavering quality. Additionally, entertainers who evaluate their dependability as a rule don't expect to be this. As indicated by additional requesting records of trust, innovative relics are «paradigmatic instances of things regarding which we make decisions of dependability rather than things we can truly trust» .

Despite the fact that less requesting records of trust which don't separate among trust and simple decisions of dependability for the most part come from the possibility of relational trust, they are by and large likewise open

for innovative antiques as legal administrators. Assuming trust is likened with decisions of unwavering quality, innovative ancient rarities are trusted on the off chance that an entertainer surveys their dependability emphatically. In this manner, suppositions on the idea of trust have huge ramifications on how the job of confidence in blockchain-based frameworks can be conceptualized. A few portrayals of «the trust upheaval of the blockchain and appropriated record technology» are clearly just viable with a particular record of trust, regardless of whether the adherence to the record isn't made express.

Portraying the shift as one from human entertainers as legal administrators to «algorithms that oversee clients' interactions» , a «cryptographic algorithm» , «the instrumental activity of mining» , «an open-source code» , or «collectives of machines» are incoherent with additional requesting records of trust that assume explicit moral or attitudinal parts an essential. Trust in the mining local area and other aggregate elements whose individuals are for the most part expected to act only in light of personal circumstance additionally have all the earmarks of being contradictory with at minimum a portion of the additional requesting records of trust.

The Depictions of the Role of Trust in the Light of these Findings:

As displayed, the job of trusting blockchain-based frameworks can be described in different ways relying upon which record of trust is applied and what part delicate the socio-specialized framework is viewed as fundamental. This segment traces the pertinence of these choices for the portrayal of blockchain-based frameworks as being without trust, being founded on trust in innovative parts like cryptographic calculations, or depends on disseminated trust. To feature trust-limiting highlights of the innovation, blockchain advocates frequently apply a seriously requesting record of trust that sets higher requirements for a position to be qualified as trust than simply being founded on normal assumptions towards the legal administrators' conduct. Their positive idea of blockchain as a «trust-free» innovation is just fathomable if «trust-free» alludes to the shortfall of the need to survey explicit inspirational elements of legal administrators, e.

Since the agreement instruments determined in blockchain conventions depend on a motivation framework grounded in game hypothesis, they should be viewed as trust upgrading as opposed to confiding in liberating if a less requesting record of trust-dependent exclusively upon sane assumption is applied. The idea of trust intrinsic in asserting that the blockchain innovation is without trust accordingly should be perused as far as additional requesting records of trust. The given motivating force frameworks assume that entertainers are evaluated with respect to assumed personal circumstance just . Pundits here highlight entertainers beyond the smaller framework.

These incorporate controllers and designers who can use power separately, cryptographic money trades which will quite often succumb to assaults routinely , and the actual clients who frequently miss the mark on PC education important to explore securely inside the more extensive climate of blockchain-based frameworks . Nonetheless, a considerable lot of these studies against the portrayal of blockchain-based frameworks as being sans trust apply a record of trust that is less requesting. Since it reveals insight into existing vulnerabilities and weaknesses of clients in the more extensive climate of these frameworks, this basic counter-account against the overstated cases laid out in the past passage is significant and very much established. However, it works with unique suspicions and depends on wording that varies from the ones utilized in more intelligent portrayals of blockchain as an innovation that empowers without trust exchanges.

The second portrayal of the job of confidence in blockchain-based frameworks recommends that clients just need to put trust in calculations, code, or math. To pose the viewpoint that «a new type of 'algorithmic trust' is made, one that altogether separates itself from the more customary typology of trust that was at first just between human agents» , it is important to expand how this purportedly new type of trust contrasts from these more summed up ideas of confidence in innovation. The third portrayal proposes that blockchain innovation makes it conceivable to supplant trust in individual entertainers with circulated trust. In this line of reasoning, the innovative parts of the framework don't comprise the confided in element.

By pointing at the mechanical parts of the socio-specialized framework that work with theist,i. , the crypto agreement component, this portrayal additionally gives a reasonable image of the advancement behind blockchain innovation. It recommends that blockchain innovation permits, from one viewpoint, appropriating trust where it was until now impractical and, then again, circulating trust by implies other than those natural from different settings. , a «confident relationship with the unknown.» Furthermore, the possibility that this arrangement replaces trust in individual entertainers is likewise just viable inside the limits of specialized displaying in which entertainers like designers are not thought of.

The job of these entertainers who have demonstrated to presently have the ability to apply power separately remains unaccounted for in these contemplations. Moreover, in their evaluation of the job of confidence in

blockchain-based frameworks, a few researchers consider one as well as numerous of the portrayals presented in this paper. The strength of these elaborations lies in that they give an outline of the recently settled connections and underlying affirmations just as enduring and arising weaknesses inside the more extensive climate of blockchain-based frameworks.

CONCLUSION

Numerous researchers concur that one of the uncommon highlights of blockchain innovation lies in the strange prerequisites it sets for clients to put trust in different elements inside the framework when utilizing it. There are without a doubt different thoughts on how the job of confidence in blockchain-based frameworks varies from the job of confidence in different arrangements. As displayed, the uncertainty of the term «trust» assumes a significant part here. While most elaborations essentially anticipate that the fundamental phrasing should be obvious, the verifiably hidden records fluctuate significantly.

By and by, despite the fact that a few portrayals of the job of confidence in blockchain-based frameworks have all the earmarks of being indistinguishable with others, the greater part of them can't be dismissed spur of the moment. Particularly the portrayal of blockchain as an innovation that empowers innovatively worked with trust in a disseminated organization of entertainers that are not trusted exclusively can be emphatically featured here. In opposition to different portrayals, it permits considering both specialized parts just as key entertainers all the while. The heterogeneous phrasings in the particular lines of argumentation make it progressively trying for researchers to reference each other in the scholastic talk.

The most striking model here is the discussion on whether or not blockchain innovation empowers without trust exchanges. As displayed, a sensible contention can be made for this inside the restricted domain of specialized demonstrating and in light of a really overbearing record of trust. In any case, pundits of this thought just as blockchain devotees frequently overlook the impediments of this contention and treat sans trust exchanges as a supposed framework include that without more ado can be utilized in the regular use of carried out frameworks. Here, the absence of a common phrasing adds to both an inappropriate investigate of the underlying contention and a ridiculous promotion encompassing claimed highlights the blockchain innovation.

To handle these issues by and by, Hardin's idea that talk members need to determine their phrasing with respect to trust ought to be approached more in a serious way. Accordingly, since a common phrasing across the large number of involved disciplines doesn't seem, by all accounts, to be a feasible objective, it is foremost that researchers think about different perspectives and make basic suppositions and ideas unequivocal. With regards to the talk on the blockchain, e. , relational trust , trust in gatherings and associations , trust in innovative frameworks , and trust in game-hypothetical settings are especially imperative.

Here, future examination could expand on the discoveries of this paper by giving researchers a scientific classification of the records of trust important in blockchain research. On the off chance that these outlines don't give accounts that suit a particular recommendation or contention, e. , in situations where researchers assert that blockchain sets up another type of trust , it is by the by important to present an unequivocal meaning of trust. Especially the thought of conveyed trust in the relationship of clients and excavators empowered through explicit specialized elements which set up a financial motivation framework gives off an impression of being essential in such manner.

In view of crafted by researchers like Antonopoulos , Hawlitschek et al. , and Werbach , who portray the relationship of trust and specialized highlights in more detail, correlations with contiguous peculiarities, for example, trust in business sectors can be attracted to foster an undifferentiated from idea. Affirmations I recognize monetary help from the Hamburg Ministry of Science, Research, and Equality in the venture Information Governance Technologies under the reference LFF-FV 34.

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A STUDY ON BIOMETRICS TECHNOLOGY

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ABSTRACT:

A wide variety of system requires good recognition services to ensure identity of that user who is trying to access their services. The main goal of this system to confirm that services or data is accessed by authorized user and no one else.

In the absence of recognition scheme anyone access the system and can misuse the data or information. Biometrics is, "the automatic use of biological or behavioural characteristics to define or authenticate identity." Some of the famed biometric characteristics used at the present time biometric-based authentication schemes are Fingerprint, Iris, geometry of hands, palm prints, Iris ,Heart Rate Variability (HRV), PPG, ECG, voice, retina, etc. By using biometrics, system can identify the person

INTRODUCTION

The word biometric is a Greek word.

"bios" means life and "metrics" means measure. Biometrics are statistical analysis of how person behaves or behavioural characteristics. Biometrics are a method to evaluate a person's physical features to verify their identity. To use that data, biometric data should be distinctive, enduring and collectible.

After measuring biometrics data, the processed data or information is differentiated and matched in a system database. Biometrics is promising approach for security application. To confirm identity of person Biometrics measures person's physical characteristics. These can contain biological behaviours, such as eyes and fingerprint, facial recognition or behavioural characteristics,

Biometrics:

Biometrics are used in application or system where er need to validate identity of person. It is used mobile phones to unlock and it is also used big systems where accurate authentication is required. Biometrics are used in schools for attendance and it used in offices also. In banking biometrics are used.

Biometric technology refined, advanced, and sensitive. It protects organization and individuals

Biometrics is divided into two categories:

Behavioural Biometrics and Physiological Biometrics.
Behavioural Biometrics:
Behavioural Biometrics analyses user's analytical and digital behaviour.

Behavioural metrics are divided into:

1) Signature Recognition 2) Voice Recognition 3) Keystroke

Signature recognition
Signature recognition identifies a person depends on their handwriting.

Voice recognition
Voice recognition is also known as speech recognition. It is used to perform commands. User has to speak to input their voice into the system as sample. Then at the time of login voice is matched with recorded signal which is stored in computer memory. Here analogy signal is converted into digital signal.

Keystroke Dynamics
Everyone has a different striking rate or style of typing. In keystroke dynamics it is kept as a data and then it is used for safety purposes.

Physiological Biometrics
Physiological biometrics is based on a behavioural trait of an individual. It involves all physical characteristics are involved like eyes, iris, fingerprints, ears etc.

It is further divided into:

1) Ear authentication

2) Eye vein recognition

3) Facial recognition

4) Finger vein recognition

5) Fingerprint recognition

6) DNA matching

7) Footprint and foot dynamics

8) Gait recognition

Ear authentication

The shape of the pinna i.e., external ear is completely unique. It is considered physiological biometric characteristics. Sound waves are being used to ear authentication to determine the ear canal.

Eye vein recognition

Eye vein verification is a method of biometric authentication that applies pattern-recognition techniques to video images of the veins in a user's eyes. The system processes the fetched digital images to generate a biometric template, which can be associated with the identity information of an individual. The individual can later validate his or her identity using eyes. Unlike retina or iris recognition, the subject has to look on either side to get verified.

Facial recognition

How do we know each other? with the help of facial structure. Facial recognition is a biometric technology which is used identification and authentication of person. If your system has high quality camera it can identify person from distance also. Facial recognition is good biometrics for security system. But sometimes it is not safe as identical person can login the system.

Finger vein recognition

It is a vein matching technology which works on the matchless pattern of blood vessels. This outline is formed by the blood vessels and the veins that carry the blood.

Fingerprint recognition

Fingerprint identification is publicized and well-known biometrics. Fingerprint recognition compares fingerprint with recorded fingerprint if it matches it gives access. Fingerprint is unique. No other person can share the same fingerprint. Fingerprint does not change with time and fingerprint recognition is easy to use and secure. It is used for mobile and laptop login.

DNA matching

In biometric technology some part of a person's body like hair, blood or nail is examined. It is picked by forensic team and then it is given forensic labs for various investigations and medicinal purposes. DNA contains information about race, paternity, and medical conditions for specific disease. In movies and especially in CID we have seen these kinds of thrillers and CSI stories. DNA can be left behind on crime scenes.

DNA matching is not very fast and it is expensive as compared to other biometrics.

Gait recognition

Gait recognition refers to the use of video of human gait, processed by computer vision methods, to recognize or to identify persons based on shape of the body and walking styles. This is a passive mode of acquiring biometric data from a distance.

Biometrics is safe?

Biometrics are great. Each biometric has a unique identity. We leave fingerprint everywhere. If any hacker wants our biometrics trace, they can easily get it. even if attacker has 2D image of our face or fingerprint they can easily unlock the device. But if we compare biometrics to password biometrics cannot be decoded easily.it is safer than passwords.

Advantages of Biometrics:

● It helps to identify user's identity and give access to legitimate user.

● It is highly secure.

● Biometrics is very tough to make a copy or to steal.

● It is very convenient to use.

Disadvantages of biometric authentication

- Not affordable.

- Biometric data hackers can hack and they can misuse that data.

- Facial recognition system is not very safe as anyone can use 2D image of legitimate user or person looking little bit identical can access the data.

- False positives and inaccuracy.

CONCLUSION

Biometrics is modern and emerging technology it is safe and secure as compare to password. Biometrics technology is convenient to use.

Biometrics is safe. It uses unique identity in future it will be very useful to avoid instances like your partner your all passwords and security answers in such a case partner can misuse your data so here biometrics will be very useful and our data will be protected also.

Both advantages and disadvantages are there. But despite all it is very useful and accurate.

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- The Reliability and Acceptance of Biometric System in Bangladesh: Users Perspective Shaykh Siddique*1, Monica Yasmin*2, Tas nova Bite Taher*3, Mushfiqur Allam*4

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CLOUD COMPUTING IN DATABASES

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ABSTRACT
Cloud computing is a new computer model from grid computing, Parallel computing, distributed computing, virtualization technology, utility computing and other computer technologies and has very useful features such as large-scale calculation and data storage, virtualization, high flexibility, reliability and low cost service. The cloud computing security issue is very important and can prevent the rapid development of cloud computing. This paper introduces cloud computing systems and analyzes cloud computing security issues and their strategies in terms of computer computing concepts and characters. Data privacy and service availability in cloud computing is an important security issue. One security solution cannot solve the problem of computer security and many traditional and innovative technologies and techniques must be used together to protect the core of the cloud computing system.

Keyword: Microsoft, Azure SQL, Database, DBA, Cloud, Availability, etc.

INTRODUCTION
As we know cloud computing related to provide on-demand availability of resources over the internet for businesses, especially computing power, Disaster recovery, Data Recovery, data storage without active involvement of management by the user.

Or nothing but delivering online hosting services over the internet.

As we can see in IT sector all the businesses are started moving from on-premises to cloud. There are multiple reasons behind this migration few are highlighted below.

- Cost Effective
- High Availability Assurance
- Leveraging new technologies
- Security and Flexibility

Uses:
So as topic name suggest only we will have a look on Cloud Computing uses in Databases. There we have already highlighted how IT techs are started transferring their businesses to Cloud, We have seen traditional database provider have launched their databases support to cloud for example. Microsoft Azure database, Oracle database, Google Cloud Platform and IDB DB2.

Example of PaaS:
As we are noticing how on-premises Microsoft SQL Server database client is started migrating to Azure SQL Server due to its flexibility as there are no need to set any backup schedule and retention period for backup, Disk management issue and High Availability task all these things are managed by Microsoft Azure Team so it reduce task of any SQL DBA (Database Administrator).

So we are going to talk about Azure SQL Database

Where there is a challenge to provide and manage a lot of information without building datacenter infrastructure; where there is a need to reduce risk — as management and additional amendments are for sales, which helps organizations and application owners to focus on site design and implementation.

Benefits of Azure SQL Database
1. High Speed and Minimum Down Time
As the heading suggest Faster availability architectures mean high speed connectivity and data retrieval as well as minimum down time at your organization. This help you to make your data and system available to your user at most time. There's nothing terrible than halting business application because your services can't keep up available all time, but that is no longer a worry with SQL Azure Database.

Lastly, there are multiple levels of implementation that we can benefit from.

- If you simply need a website and a database, you can hitch a SQL Azure instance to an Azure website and you're done.

- If you need a complete Virtual Machine (VM) now or even down the road, you can get that as well.

- You can even use a locally deployed instance of SQL Server in the VM instead of SQL Azure.

These implementation options helps make your company more flexible to the unavoidable changes it undergoes on a commonly basis. With AzureSQL, we are no longer stuck in above highlighted. You're on a page that encourages growth while working with cloud.

2. Scalability and Beyond
First of all, SQL Azure database is providing flexible service plans for SQL Database meet the needs of both huge and small business application and uses. Azure Database is no more way out of reach for smaller business operation because the pricing structure allows users to pay as little amount for databases per month with a maximum storage set at 150 GB per database. Hugh space for very little cost.

3. Improved Usability
As we are familiar with all things for SQL Database Administrator operation such as backup, high availability, disk space management, log space issue, Mirroring things are no longer requires in Azure SQL Database as these things will done by Microsoft Azure Team. Better yet, there's no coding required! Using standard SQL, it's much easier to manage database systems without having to write or update a huge amount of code.

4. Easy-to-Use Migration Tools
Migration in Microsoft SQL Database to Azure SQL Database is now peaceful than ever and free. Now Azure SQL Server allows you to likewise sync your on-premises SQL Servers-stored data to Azure SQL or there are some third party tools which help to migrate on-premises database with their logins to Azure SQL Database.

5. DATA SECURITY:
As we are aware about security concerns in information sector the same goes with Database also for any ideal database security is must and highly required parameter. So Microsoft offer it database user to provide multiple level of threat protection.

Referred for Microsoft Page.

As we have seen in above diagram Microsoft offer multiple level of data protection of Azure SQL Database

6. Network security
To help protect user data, the first thing will check by firewalls, firewall prevent network access to the server until access is explicitly trusted and granted based on IP address or Azure Virtual network traffic origin.

7. Virtual network firewall rules
Virtual network service endpoints reach your virtual network connectivity over the Azure backbone and enable Azure SQL Database to identify the virtual network subnet from where traffic originates from. For allowing traffic to reach Azure Database, use the SQL service tags to allow outbound traffic through Network Security Groups.

8. Access management

Access management is Azure SQL is done by 2 way, we could get authenticated by **SQL Login (**A separated username and password will generate by DBA using these credentials any user and can get authenticated to SQL Databases**)** or **Azure Active Directory authentication (**A server admin called the **Active Directory administrator** must be created to use Azure AD authentication with SQL Database.**)**

CONCLUSION

As we discussed that the cloud it the future of any technology and in terms of cloud databases that is already started migrating. Overall, the Azure SQL Database provides a very secure & scalable database needed to perform functionalities in a very positive way.

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A STUDY ON INFLUENCE OF SOCIAL MEDIA MARKETING ON CONSUMER'S BUYING BEHAVIOUR

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ABSTRACT
Social Media is an electronic word of mouth. Social Media is the two way communication that allows users to interact with each other and share their thoughts. Social Media Marketing has become the most important mode of advertisement for a product or any brand, as people follow more social media than traditional media. Technology now allows every individual to easily share their thoughts an opinion this allows any organization to directly connect to customer's thoughts. Social media also provides various small scale businesses to put forward their services or products. Social media is a huge platform for various producers, sellers and also for buyers. The main aim of the study is to know impact of social media marketing on consumer's buying behaviour. Our goal is to know how deeply a consumer is influenced by social media marketing.

Keywords: Social media, Marketing, Costumers, Technology.

INTRODUCTION
Previously people were interacting with each other without language every thought was expressed through action; later words enter into lives of people they started expressing their feelings through words. Words played a very important role in one's life. Now these words have an electronic platform in this era. The world is rapidly moving towards digitalization. Previously marketing was done through newspapers, articles, etc. then after television played an important role in marketing. But, today social media is playing a very important role in the world of marketing. Every entrepreneur wants to display their product or services on social media sites to increase their costumers and profit. A consumer can share his or her thoughts directly on social media. This creates a direct link between seller and consumer.

Social media marketing is the best platform for marketing any brand or product. Social media changes a consumer's vison toward the product or service. It is more attractive and also more informative. It can be said an information without interruption. Our aim is to study the impact of social media marketing on consumers buying behaviour. This study also includes knowing various social media websites and apps and also the most preferred from those.

REVIEW OF LITERATURE
- Mr. Sony Varghese1 & Ms. Mansi Agrawal written a research paper in 2021 on impact of social media on consumer's buying behaviour in which impact of social media on consumer buying decision and role of social media in marketing is mentioned. They also mention how businesses can engage more customers to increase the brand value through social media.

- Sachin Gupta & Chahat Chopra written a research paper in 2020 on impact of social media on consumer buying behaviour in which a quantitative survey is mentioned which investigates up to what degree experiences are altered by the use of social media. They have also mentioned thinking process of a consumer while buying any product. They have also mentioned types of social media platforms where consumer and buyer can interact.

- Sadia Sharmin Prome written a research paper in 2021 on impact of social media on buying behavior of consumers in digital Bangladesh in which the concept of digital Bangladesh, and its connection with consumers buying behavior and how it is improving the online shopping patterns, and behaviors in social media is mentioned. It also mentions consumer's purchasing decision steps.

- Kumar Shubhangam written a literature review paper in 2020 on influence of social media advertisement on customer's purchasing decision in which he has mentioned that there is a huge usage of social media from past few years. He has also mentioned that there is a need for creating effective online advertisement strategies to increase the capital of the current market.

OBJECTIVES:
- To know awareness among people about social media marketing.

- To know most used social media websites or apps.

- To know how impactful is social media marketing over consumers buying process.

- To know most followed brands on social media.

- To know how much time do people spend on social media.

- To understand the advantages of social media marketing over traditional media.

RESEARCH METHODOLOGY:

The study is empirical is nature. The empirical data is collected for analyzing the information from teachers and students of various colleges in thane. The method of collecting data is simple random sampling method. The data is collected through primary and secondary data. Where primary data is collected through questionnaire and secondary data is collected through various research papers, articles, etc.

HYPOTHESIS:

- H0: There is no influence of social media marketing on consumer's buying behavior

- H1: There is influence of social media marketing on consumer's buying behavior.

LIMITATION OF STUDY:

- The study is limited among students and teachers of various colleges in Thane.

- The research paper is limited due to limitation of time to collect data.

- The research paper is limited upto 104 respondents.

ANALYSIS AND INTERPRETATION OF DATA:

1. **Age of respondents**
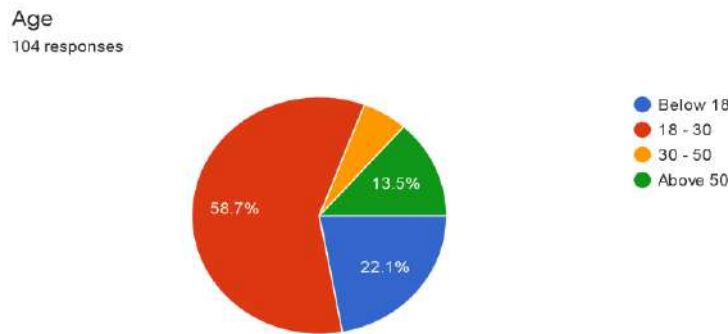
Source: Primary Data

Interpretation: From the above chart it is understood that 22.1% respondents are below 18, 58.7% respondents are between 18 – 30 ages, 5.7% respondents are between 30 – 50 age group and 13.5% respondents are above 50. We have received maximum respondents from 18 – 30 age group and very few respondents from 30 – 50 age group.

2. **Gender**

Source: Primary Data

Interpretation: Thus the about chart explain about gender respondents, where we can see that 57.7 % are female respondents and 42.3% are male respondents so we can say that majority are female respondents.

3. Awareness about social media marketing

Are you aware about social media marketing?
104 responses

- Yes
- No
- Maybe

90.4%

Source: Primary Data

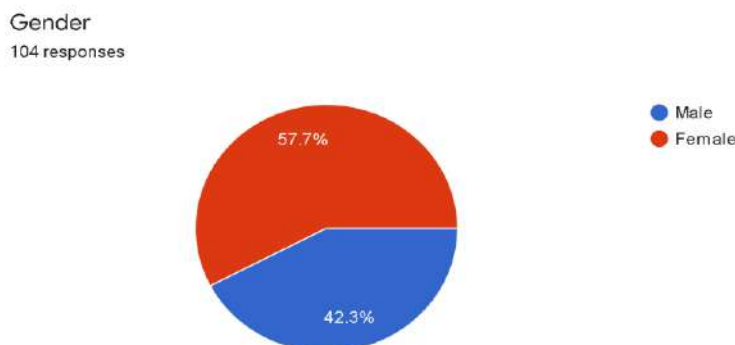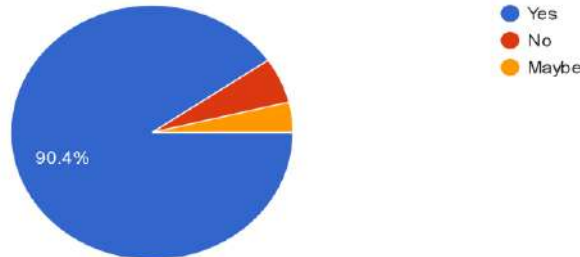Interpretation: Thus, the above chart explains that most of the respondents are aware about social media marketing i.e. 90.4% respondents know about it social media marketing and very few people are not aware about social media marketing.

4. Respondents accounts on social media sites.

On which social media sites do you have an account?
104 responses

Platform	Value
Facebook	67 (64.4%)
Instagram	86 (82.7%)
Twitter	12 (11.5%)
LinkedIn	11 (10.6%)
Telegram	54 (51.9%)
YouTube	75 (72.1%)
WhatsApp,Snapchat	1 (1%)
What's app	1 (1%)
Whatsapp	1 (1%)
Nil	1 (1%)
WhatsApp	1 (1%)
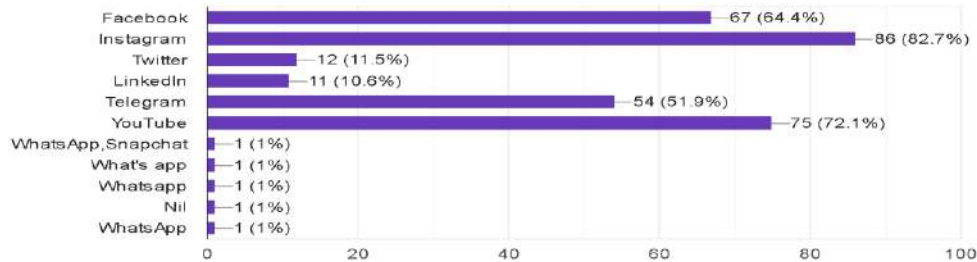
Source: Primary Data

Interpretation: The above graph is about on which social media sites respondents have their accounts. In which 64.4% respondents have account on Facebook, 82.7% respondents have account on Instagram, 11.5% respondents have account on Twitter, 10.6% respondents have account on LinkedIn, 51.9% respondents have account on Telegram, 72.1% respondents have account on YouTube and 5% respondents have account on other social media sites like WhatsApp, Snapchat etc. Hence, most of the respondents have account on Instagram.

5. Time spend by respondents on social media.

How much time do you spend on social media in a day?
104 responses

- 1 to 2 hrs
- 3 to 4 hrs
- 5 to 6 hrs
- 7 to 8 hrs
- 0 hrs

18.3%
40.4%
35.6%
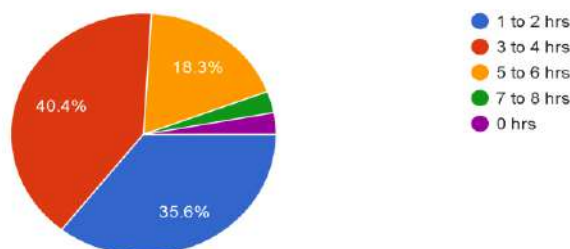
Source: Primary Data

Interpretation: The about chart explains about how much time do the respondents spend on social media in a day. 35.6% respondents spend 1 – 2 hours on social media in a day, 40.4% respondents spend 3 – 4 hours on social media in a day, 18.3% respondents spend 5 – 6 hours on social media in a day, very few respondents spend 7 – 8 hours on social media in a day and also very few people spend 0 hours on social media.

6. **Is social media electronic word of mouth.**
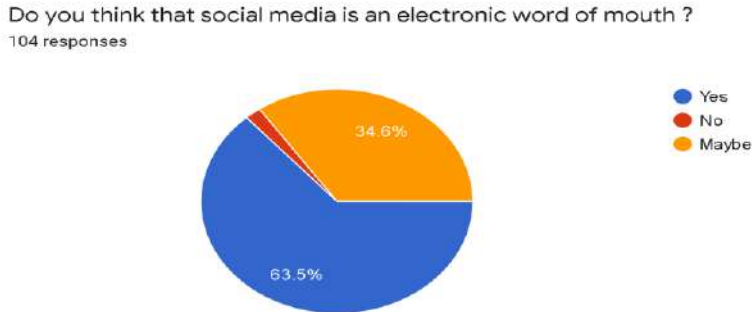
Source: Primary Data

Interpretation: Above chart explains about opinion of respondents on the statement that social media is an electronic word of mouth. Where 63.5% respondents agree with the statement, 34.6% respondents thing that this statement may be correct and very few respondents think that this statement is false.

7. **Impact of social media on any brand or product**
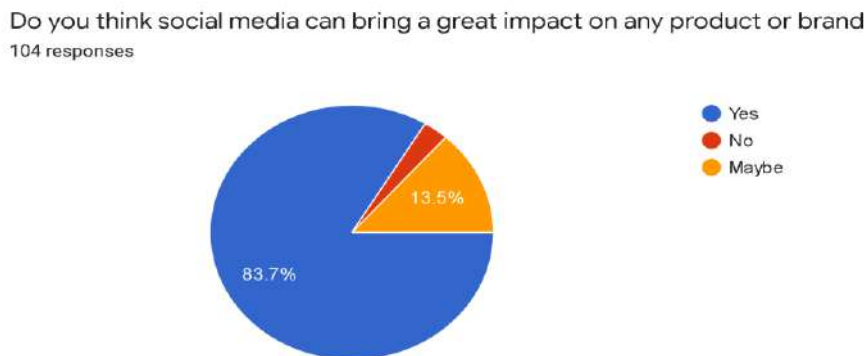
Source: Primary Data

Interpretation: Above chart explains about opinion of respondents on the statement that social media can bring great impact on any product or brand. Where 83.7% respondents agree with the statements and where as 13.5% respondents think that the statement may be true. And very few people disagree with the statement.

8. **Do respondents follow any brand on social media?**
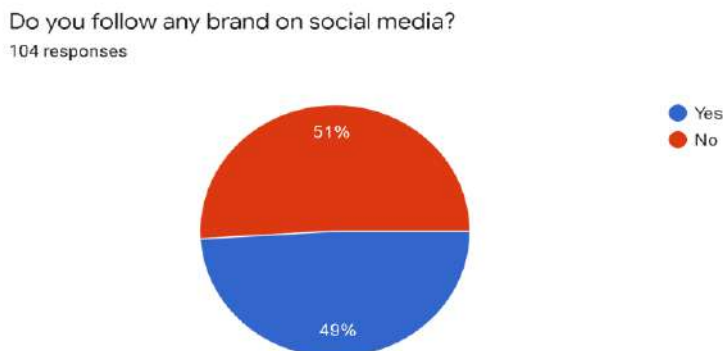
Source: Primary Data

Interpretation: Above chart explains about how many respondents follow any brand on social media where 49% respondents follow brand on social media where as 51% respondents do not follow any brand on social media.

9. Brands that respondents follow on social media.

Which brand do you follow on social media?
51 responses
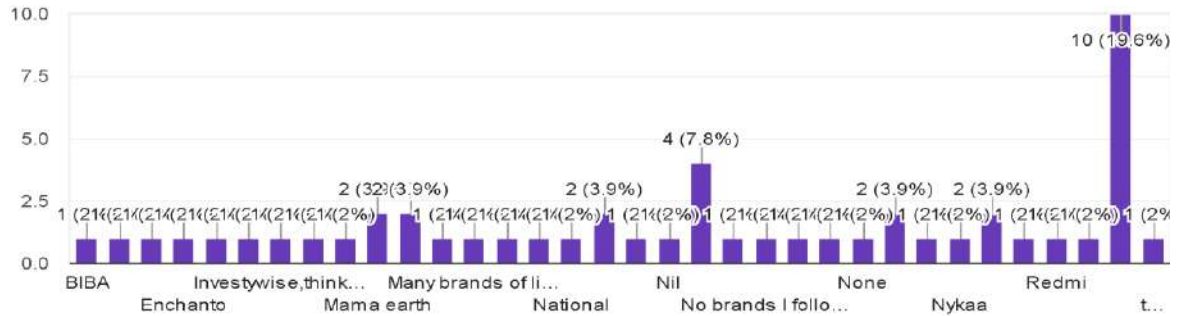
Source: Primary Data

Interpretation: The above graph explains that which all brands do respondents follow on social media. The respondents follow various brands like BIBA, Mama Earth, Nayka, Redmi, Wow, etc.

10. Is purchasing influenced by social media

Is your purchasing influence by social media?
104 responses

- Agree
- Disagree
- Neutral
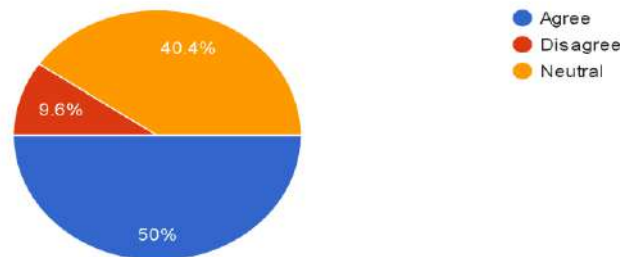
Source: Primary Data

Interpretation: The above graph explains that is respondent's purchasing influence by social media where 50% of respondents agree to the statement, 9.6% respondents disagree with the statement and 40.4% respondents are neutral about the statement. Hence, most of the respondents agree to the statement.

11. Advantages of social media marketing over traditional media.

Compared to traditional media, what are the advantages of using social media?
104 responses
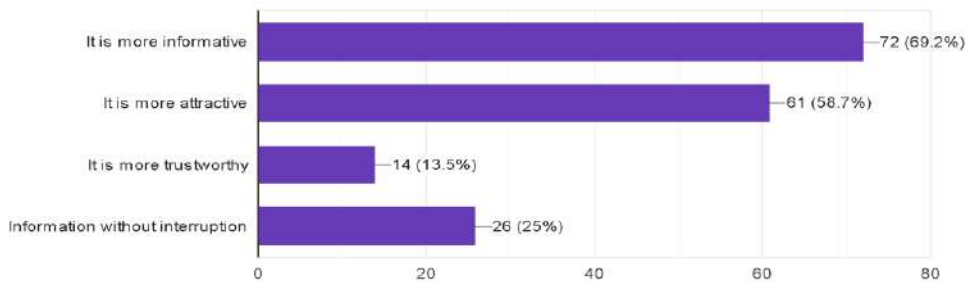
Source: Primary Data

Interpretation: The above graph explains about various advantages of using social media compared to traditional media. Where 69.2% respondents thinks that it is more informative, 58% thinks that it is more attractive, 13.5% respondents thinks that it is more trustworthy and 25% respondents thinks that it is information without interruption.

12. Vision of any brand due to social media marketing

Does social media affect your vision of the brand?
103 responses

- Yes
- No
- Maybe

16.5% 28.2%

55.3%
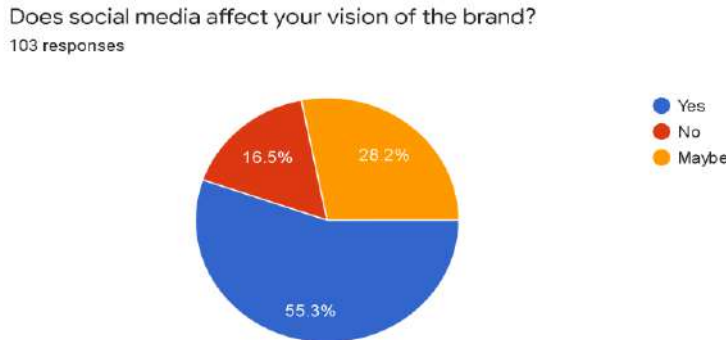
Source: Primary Data

Interpretation: The above chart explains opinion of respondents on the statement that whether social media affect their vision of the brand. Where 55.3% respondents agree with the statement, 16.5% respondents do not agree with statement 28.2% respondent thinks that this statement may be true. Hence, most of the respondents agree with the statement.

FINDINGS AND CONCLUSION:

Based on research we can conclude that-

- Most of the respondents are aware bout social media marketing.

- Most of the respondents are active on social media sites

- Most of the respondents use Facebook Instagram and also some respondents use telegram and YouTube.

- Most of the respondents spend maximum time in social media that is 3 to 4 hours.

- Most of the respondents thinks that social media is electronic word of mouth.

- Most of the respondents think that social media can bring great impact on any product or brand.

- Most of the respondent's purchasing is influenced by social media.

- Most of the respondents thinks that social media is more attractive and informative.

- Most of the respondents think that social media can affect vision of brand.

SUGGESTION:

Based on the research we can suggest that:

- Every entrepreneur should promote their product or services through social media marketing

- Entrepreneur should promote their products through various famous social media influencers

- They should maintain touch to consumers through social media and take their suggestions reviews of the product or service.

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AN EFFECTIVE AUTOMATIC FABRIC DEFECT DETECTION SYSTEM USING DIGITAL IMAGE PROCESSING

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ABSTRACT

For a long time, the diagnosis of fabric defects is done manually by human eye examination. Automatic fabric inspection is necessary to maintain fabric quality. Cloth analysis is conducted using digital photographs of the fabric.

The recognizer collects digital fabric pictures using an image capture device and transmits them to a computer system for processing. Using digital image processing techniques, the computer system analyses the fabric to determine if it is defect-free or defective. Despite the availability of several algorithms, research remains difficult. This article discusses the requirements, problems, and methods of an autonomous fabric flaw detecting system. And more over the paper presents all the possible available technologies involved in the automatic fabric defect detection system.

INTRODUCTION

Automatic fabric inspection is important to maintain the quality of fabric. It is desirable to produce the highest quality goods in the shortest amount of time possible. Fabric flaws or imperfections account for almost 85 percent of all problems discovered in the garment business. These methods do not have the disadvantages of human visual assessment because they are computer-based. Manufacturers only recoup 45-65 percent of their earnings from second-hand or low-quality items. It is consequently critical to detect, diagnose, and prevent these faults from recurring. A computer-based vision system is typically used in an automated inspection system. These methods do not have the disadvantages of human visual assessment because they are computer-based.

Fabric Inspection

Product inspection is a critical component in contemporary manufacturing sectors such as electronics, automobile, and medicine. Fabric defect detection primarily involves two main options. The first one is the product or end (offline) inspection in which the manufactured fabric has to be inspected through fabric inspection machines. The second option is process inspection (online), in which the weaving process (or its parameters) may be continuously checked for the presence of faults.

Drawbacks of manual Inspection

1. It is difficult to find the defects by even human experts.

2. Human require training and they take time to develop such skill.

3. Even for the well-trained professionals, visual examination can be tiresome or difficult.

4. Human is slower than the machines.

5. Human inspectors fatigue over time (get tired quickly).

Automated Fabric Inspection

Automated fabric inspection systems are intended to improve the accuracy, consistency, and speed of flaw identification in fabric manufacturing.

This paper is structured as follows.

In Section 2, the need and challenges of an online automatic fabric inspection system has been discussed.

In Section 3, an overview of Automatic fabric inspection system explaining the key stages of it is presented.

In Section 4, Classification of all possible approaches available for an automatic fabric inspection system has been briefly discussed.

In section 5, the results of the implementation of various key stages of an automatic fabric inspection system are presented.

Finally, a conclusion is drawn in Section 6.

ONLINE FABRIC DEFECT DETECTION SYSTEM

The online fabric inspection is called as real- time fabric inspection where production and production control work are together in real time. The need for this vision system stems from the fact that the present fabric inspection method (offline) is an inadequate task.

The essential requirements for an online automated inspection system are as follows:

1. The system must operate in real-time with good results.

2. It must reduce escape rates.

3. It must reduce false alarms.

4. It must be robust and flexible.

5. It must be fast and cost efficient.

Challenges and Difficulties

1. The task is particularly challenging due to the large number of fabric defect classes.

2. There is inter-class commonality and variety of faults.

3. Also, the characterization of flaws in textured materials is not well established in general.

4. There is enormous variety of fabric patterns.

5. There are stochastic (random) variations in scale.

6. The problem of quantifying visual impressions in complex situations.

7. This task has extremely high data flow.

8. It suffers from noise influence.

Table 1.1: Difference of Manual and Automated inspection

Inspection types	Manual Inspection	Automated Inspection
Defect detection	70%	85%
Statistics ability	0%	90%
Response type	50%	80%
Inspection speed	30m/min	120m/min
Reproducibility	50%	90%
Information exchange		
	20%	87%

Defects in Fabric

The majority of fabric problems originate during the weaving process. Some of these fabric flaws are obvious, while others are not. However, certain fabric flaws may be corrected both during and after weaving, while others cannot. The texture of a cloth is determined by its feel. They are described as rough, velvety, smooth, soft, silky, glossy, and so forth. The varied textures of the cloth are determined by the sorts of. The varied textures of the cloth are determined by the weaves utilized. Textile fabric materials, such as cotton, silk, wool, leather, and linen, are used to create many categories and types of fabric goods in the textile business. Textile fabric is classified into two types: natural fabric and synthetic fabric. In a fabric, defects can occur due to:

- Machine faults
- Whole
- Color bleeding.

- yarn problems
- scratch

- poor finishing
- dirt spot

- excessive stretching
- crack point

The varied textures of the cloth are determined by the weaves utilized. Textile fabric materials, such as cotton, silk, wool, leather, and linen, are used to create many categories and types of fabric goods in the textile business. Textile fabric is classified into two types: natural fabric and synthetic fabric, which are shown in figure below.
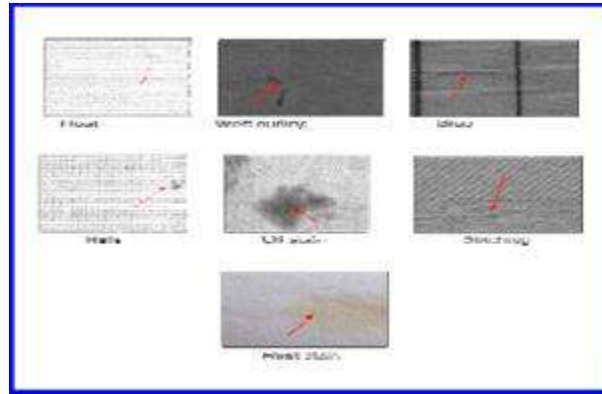
Fig. 1: Examples of different types of fabric defects.

AUTOMATIC FABRIC INSPECTION SYSTEM

The development of an automated, i.e. computer vision based system for fabric defect inspection involves several steps as shown in fig.2.

3.1 Image Acquisition

The first stage of any vision system is Image acquisition. There can be different types of camera used for this application such as CCD (Charged Coupled Device) camera, CMOS (Complementary Metal Oxide Semiconductor) camera, Digital camera, etc. The pixel value of these cameras is around 320×420 pixels.
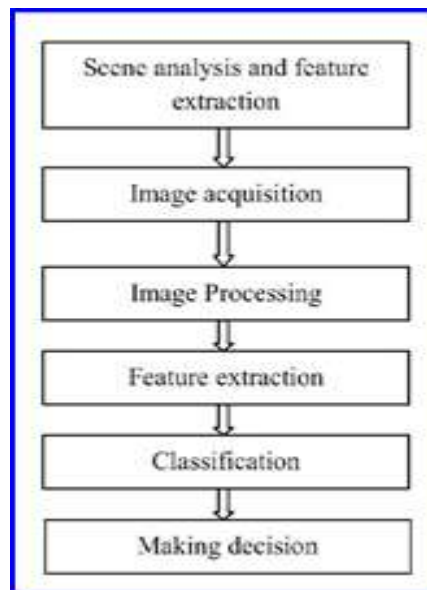
Fig. 2: Block diagram of various stages in an automatic fabric inspection system.

Image preprocessing

The image preprocessing stage consists of a variety of techniques used to improve the visual look of an image or to transform the picture to a form that can be more suited for further analysis by a person or a computer in the future phases.

Feature Extraction

Feature Extraction is a stage in which various methods can be employed for capturing visual content of images for indexing & retrieval purpose. There can be number of features defined from an image and there are methods for calculating each of these features. The features which are better suited for a particular application are selected for further analysis.

Classification

Artificial Neural Network (ANN), support vector machines (SVMs), clustering and statistical inference are to name some effective classifiers. The classification stage gives the end result of the entire fabric defect detection process by reporting whether the fabric is defected or defect free. Using neural networks as a classifier requires two phases namely, a training phase and a testing phase. In the training phase, the neural. Network makes the proper adjustment for its weights (W) to produce the desired results.

CLASIFICATION OF AUTOMATED FABRIC DEFECT INSPECTION

Statistical, spectral, and model-based techniques are the three types of structural methods. Structural approaches assume that the textures are composed of primitives. These primitives can be as simple as individual pixels, a region with uniform gray levels, or line segments. As a result, the primary goals of these techniques are to first extract texture primitives and then to model or generalize spatial placement principles. Modeling geometric relationships between primitives or learning statistical features from texture primitives can be used to create placement guidelines. However, these techniques were not successful in detecting fabric defects, owing to random fluctuations in the fabric structure (due to elasticity of yarns, fabric motion, fiber heap, noise, etc.)

Statistical Approaches

They measure the spatial distribution of pixel values while their main object is to separate the image of the inspected fabric into the regions of distinct statistical Behaviour. An important assumption in this process is that the statistics of defect-free regions are stationary, and that these regions extend over a significant portion of inspection images. These techniques are categorized into first order, second order, and higher order statistics based on the number of pixels defining the local features. First order statistics estimate features such as the average and variance of individual pixel values while disregarding spatial interaction between picture pixels; second and higher order statistics, on the other hand, estimate attributes of two or more pixels values occurring at specific locations relative to each other.

The most used approaches are:

Gray level thresholding approach:

These methods are straightforward and straightforward methods for detecting high contrast fabric problems. The idea is based on the fluctuation of the signal (peak or trough) caused by the presence of a high contrast defect.

Normalized cross-correlation approach:

Correlation is used to find characteristics in one picture that appear in another, and the correlation coefficient may be used to produce a correlation map for defect detection. The cross-correlation function calculates the degree of similarity between two pictures in a straightforward and precise manner. Any considerable fluctuation in this measure's value suggests the presence of a flaw.

Statistical moments approach:

The values are utilized for picture segmentation, while the mean, standard deviation, skewness, and kurtosis give statistical information over an area.

Rank-order functions approach:

A basic statistical technique for defect identification based on histogram analysis is an image rank-function. It is supplied by the succession of grey levels in the histogram when sorted in ascending order. The rank function and the histogram both give the same information.

Edge detection approach:

Edge detection is a well-known image analysis technique. In textured graphics, the distribution of edge quantity per unit area is an essential aspect. Lines, edges, point defects, and other spatial discontinuities can be represented by the number of grey level transitions in the fabric picture. As a result, these traits have been widely used in conformity testing, assembly inspection, and fabric defect detection.

Morphological operations approach:

The geometrical and structural qualities of a picture can be described using mathematical morphology. Morphological image processing is useful for picture conditioning, labelling, grouping, extraction, and matching. Morphological processes are one of the best strategies for reducing noise from spatially filtered fabric pictures.

Local linear transforms approach:

This method is similar to filter bank analysis approaches. It provides statistical support for the extraction of texture attributes using convolution operators (masks). These masks may be thought of as local detectors of elementary structures like flaws.

Artificial neural-networks approach:

Because of their non-parametric character and ability to express complicated decision transforms, artificial neural networks are among the fastest and most flexible classifiers used for defect detection. If the window

function is Gaussian, the windowed areas are made up of a network of comparable basic processing units (neurons). These neurons are organized in layers.

Structural Approaches

Spectral techniques, which are based on spatial-frequency domain characteristics that are less susceptible to noise and intensity fluctuations than features retrieved from the spatial domain, account for a large portion of the most recent computer vision research effort. Spectral techniques need a high degree of periodicity, hence they should only be used for computer vision of uniformly textured materials such as textiles.

Fourier analysis Approach:

The Fourier analysis is a worldwide method for characterizing textured images in terms of frequency components. Noise immunity, translation invariance, and optimum characterization (enhancement) of periodic features are all desirable qualities of Fourier approaches. There are several methods for implementing Fourier analysis for fabric defect detection. Optical Fourier Transforms (OFT) obtained in the optical domain by using lenses and spatial filters can be used, but most digitally implemented techniques are derived from Discrete Fourier Transforms (DFT) and/or its Inverse (IDFT) which recovers images in the spatial domain.

Gabor filters approach:

The windowed Fourier transform is the traditional method for incorporating spatial dependence into Fourier analysis. When the window function is Gaussian, the windowed Fourier transform transforms into the well-known Gabor transform, which may potentially attain optimum localization in both the spatial and frequency domains.

Model based Approaches

The challenge of detecting probable clusters in a data collection (picture) has a long history. To analyze denim materials, Campbell ET colleagues integrated image-processing techniques with a strong new statistical method. To detect relatively subtle alignment faults, the method leverages model-based clustering. The Bayesian information criterion is used to evaluate the evidence for the presence of a defect.

Gauss Markov Random Field (GMRF) Model Approach:

The picture is merely random noise, and Markov random fields employ a detailed description of this dependency.

They can capture local (spatial) contextual information in images. These models assume that the intensity at each pixel in the image depends on the intensities of only the neighboring pixels. By defining reciprocal impacts among such items using condition MRF distribution, the theory provides a straightforward and consistent method for describing context dependent things such as pixels.

Poisson's Model Approach:

The nature of the production process informs the stochastic models of various randomly industrial textured materials. The fibrous, non-woven material used for air filtration that is created using adhesive technology is one example of such material.

RESULTS & DISCUSSIONS

Despite the fact that there are several fabric defect detection algorithms and strategies, it is critical to discover successful ways among these approaches. The comparative study is critical and may serve as a research guide since it allows researchers to learn and grasp the differences between various methodologies based on practicality and dependability.

It has been determined that there are a variety of approaches for wavelet-based texture segmentation. As a performance metric, the two-point correlation function was employed. It has been discovered that the function may be utilized as a tool for both visualizing the existence of structure in any high-dimensional feature space and selecting the best features to employ in the detection process.

In addition, two techniques for identifying and categorizing knot and slub flaws in woven solid-shade, unpattern textiles were compared. Based on statistical or morphological computations, the autocorrelation function was employed in both ways to locate fabric structure repetition units. It has been discovered and established that both strategies work similarly
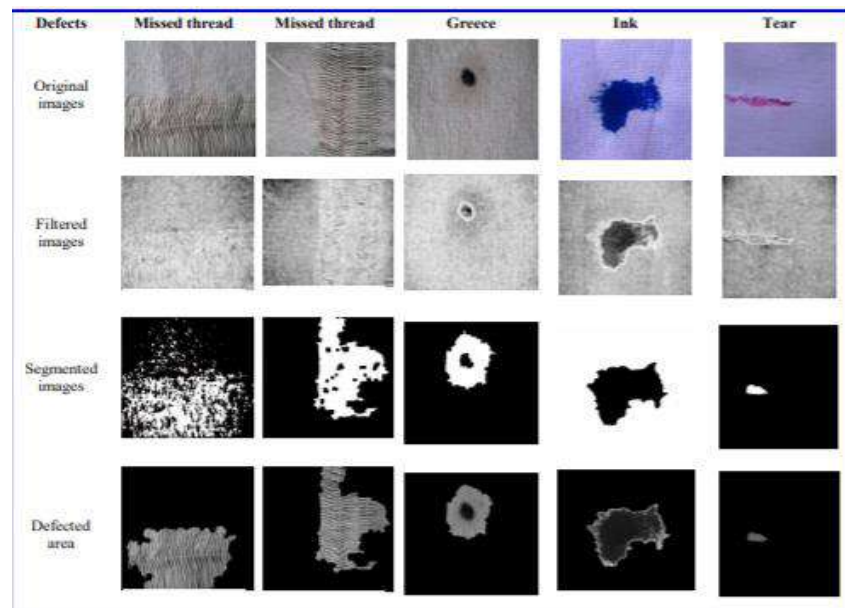
Fig. 3: Resulted images after applying various filtering techniques on original images

A comparison study was created to assess the appropriateness of four alternative detection algorithms. In this work, grey level co-occurrence, normalized cross-correlation, texture-blob detection, and spectral techniques were used. The correlation technique appears to be the most promising strategy for developing a real-time, high-accuracy defect detection algorithm.

When the Sobel edge detection approach is compared to those based on thresholding and fractal dimension in Conci and Proença, it is discovered that they are both robust and quick methods for detecting fabric flaws. It has been effectively determined that the usage of the fractal dimension approach may provide the most accurate results since it is capable of successfully detecting all forms of flaws with just 2% false alarms while being quick.

The core algorithms and approach need the use of a strong approach. The digital photographs of both flawed and defect-free fabrics were obtained by a digital camera in the suggested algorithm, which was based on the Automatic fabric inspection system outlined in Section III, as shown in fig. above.

By using a PSO-based median filtering methodology, these pictures are preprocessed to become noise-free. Figure above depicts the resulting pictures.

Entropy-based segmentation is used to the filtered pictures in the process of detecting the flaws in the fabric photographs, which results in precisely segmenting out the defective area, if any, in the picture.

These photos are then given to an Artificial Neural Network classifier, which determines if they are defective or not. To increase the technique's credibility, a second stage is added utilizing a PSO-based feature selection, in which the classifier is capable of precisely defining what type of fault it is. In this case, the suggested method has been evaluated to recognize five types of faults, including tear, ink stain, oil stain, and missing thread (both warp and weft thread miss). The goal here is to demonstrate the technique's efficacy in detecting faults in both actual and simulated fabrics.

CONCLUSION

Various faults that may arise in a fabric, their causes, the need for and problems of an online automated fabric inspection system, and an overview of an automated fabric inspection system are fully explained in this article. A suggested system and its output have been provided. This approach identifies 85 percent of defects in fabric and locates defects in normal fabric at an acceptable rate, with an accuracy of 80 percent. We reported promising results for an efficient automated fabric inspection system for multi-class defect identification and classification in textiles, utilizing both geometric and texture cues to capture visual attributes.

CLOUD COMPUTING SECURITY

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ABSTRACT

Cloud Computing is progressively changing into standard as several enterprise applications and data moving into cloud. However, a serious barrier for cloud adoption is real and perceived lack of security. during this paper, we have a tendency to take a holistic read of cloud computing security - spanning across the possible problems and vulnerabilities connected with virtualization infrastructure, software package platform, identity management and access management, data integrity, confidentiality and privacy, physical and process security aspects, and legal compliance in cloud. we have a tendency to gift our findings from the points of view of a cloud service supplier, cloud shopper, and third-party authorities like Govt. We also discuss vital analysis directions in cloud security in areas like trusty Computing, Data centrical Security and Privacy protective Models. Finally, we have a tendency to sketch a group of steps that may be used, at a high level, to assess security preparation for a business application to be migrated to cloud.

Keywords: Cloud Computing; Security; trusty Computing; data integrity, confidentiality; survey.

INTRODUCTION

Cloud computing is quick turning into a preferred possibility for dealing of computing and storage infrastructure services (called Infrastructure as a Service or IaaS) for remote platform building and customization for business processes (called Platform as a Service or PaaS) and for dealing of business applications as an entire (called package as a Service or SaaS). The cloud infrastructure has been any sub-divided into Public. Cloud – wherever the infrastructure resides all outside of the tenant /enterprises/firewall.

Hybrid cloud – wherever the infrastructure and business processes reside part inside the enterprise and part consumed from third party; and private Cloud – wherever IT services are mounted on high of large-scale conglomerated and virtualized infrastructure inside enterprise firewall and consumed in "per transaction" basis.

We observe that data, platform, user access and physical security problems, though accentuated in cloud computing, are usually applicable in alternative enterprise computing situation still.

For example, hypervisor connected threats like cross channel attacks are going to be gift in any virtualized environment not specific to cloud. 2 of the nice virtues of cloud computing are service abstraction and placement transparency. However, from security purpose of read these 2 points in conjunction with third-party management of data will produce challenging security implications.

The paper outlines however analysis around secure Computing, Data central Security and Privacy protective Models could offer answer to a number of these difficult challenges. Since personal clouds are in operation within enterprise firewalls, we have a tendency to exclude them from this discussion.

Cloud computing security or, additional merely, cloud security refers to a broad set of policies, technologies, applications, and controls used to safeguard virtualized data science, data, applications, services, and the associated infrastructure of cloud computing. it's a sub-domain of computer security, network security, and, additional loosely, data security.

2. COMMON CONCERNS ABOUT CLOUD SECURITY AND IMPLICATIONS:

We divide the common security problems around cloud computing across four main categories:

a) Cloud infrastructure platform and hosted code: This contains issues associated with attainable virtualization, storage and networking vulnerabilities. we tend to cowl vulnerabilities which will be inherent within the cloud package platform stack and hosted code, that gets migrated to cloud. we tend to additionally discuss the physical data- center security aspects here.

b) Data: This contains the questions about data integrity, data lock, data remanence, provenance, and data confidentiality and user privacy specific issues.

c) Access: This contains the priority around cloud access (authentication, authorization and access control or AAA), encrypted electronic communication, and user identity management.

d) Compliance: Because of its size and turbulent influence, cloud is attracting attention from regulatory agencies, particularly around security audit, data location; operation trace, ability and compliance issues.

We believe that through this categorization we tend to cowl most common cloud security problems.

2.1 Concern C1: Is my cloud-services suppliers physical and package infrastructure secured?

A recent survey disbursed by Novell; eighty-seven percent enterprise respondents looked as hybrid clouds as a future data center evolution whereas ninety-two percent say that internal IT will eventually get migrated to public cloud. However, 9 out of 10 respondents have additionally voiced their issues on security.

Migrating applications to cloud and hosting those in remote multi-tenant atmosphere raise issues like:

C11: square measure the cloud data centers physically secured against security breaches?

C12: however, is my application secured in shared virtualized infrastructure (VMs, storage, network) against malicious attacks?

C13: Since my application is hosted with common package stack (PaaS and SaaS), how does potential common-stack vulnerability have an effect on me?

C14: In hybrid cloud my internal applications could move with cloud-based ones during a common workflow. however, do I guarantee security isolation?

C15: am i able to trust the APIs and interfaces provided by cloud providers?

C16: Since I relinquish execution management, however will it's ensured that no embezzled operations happen?

Implication I1: Secure physical computing, storage and network access atmosphere. Typical datacenter connected security measures associated with physical access, layouts of racks, servers and network redundancy and isolation, intrusion detection and bar systems, backup and disaster recovery contingency, HVAC connected problems square measure needed. The TIA- 942 data Center Standards summary describes the necessities for the data center infrastructure. it's expected for sensitive and significant customers to return into public cloud, the cloud should meet these criteria adequately to handle concern C11. it's typically noted that major security breaches and threats come back from internal workers.

A tight set of checks and audit processes square measure needed for this purpose. To tackle C12, the IaaS cloud suppliers ought to make sure that virtualized infrastructure is secure against anyone exploiting known and rising vulnerabilities. These square measures susceptible to exploitations and attacks.

Malicious code will notice presence of a hypervisor and launch attacks like denial of service or even exit from the protected atmosphere to garner higher privileges. a gaggle of researchers have exploited constellation and VM placement strategy in Amazon cloud. they need taken recourse to who is queries, protocol synch messages, and alternative internal / external probes and fairly static internal IP allocations of EC2 convenience zones to map and target physical hosts of specific guest VM instances. They then "planted" malicious VMs during a co-located manner and exploited shared zones and covert channels like time-shared catches to realize process data.

Service suppliers additionally got to guard against general and customary OS and VM vulnerabilities such as rumored vulnerabilities like in insecure named pipes, SSL connected problems within the sort one (emulated hypervisors) and HVM (hardware virtualization) monitors, rumored serious flaws etc.

Concerns (C13, C14) around shared resources and advancement square measure notably vital for hybrid PaaS and SaaS suppliers. The Cloud Security Alliance terms it as "shared technology vulnerability". Active observance of any surprising configuration changes (however small) and vulnerability scanning of any shared resources (OS, international caches, multiplexed channels etc.) square measure needed for this. OS level isolations like exo-kernels haven't found abundant adoption; but JVM and method level isolation techniques square measure more and more obtaining widespread.

2.2 Concern C2: What occurs to my statistics in cloud?

In todays competitive economy, data is that the primary plus enterprises and people possess. In cloud computing, foremost concern is regarding data integrity, confidentiality and privacy, and provenance. there's a growing worry regarding the confidentiality of data hold on publically cloud server-side infrastructure. in addition, mechanisms facilitating intermittent property, like Google Gears ,cache data on the devices. Unless the cached data is effectively secured and purged often, it will become a treasure for data theft.

The considerations are listed as below:

C21: What ensures integrity and prevents damage of my data in cloud?

C22: can my business data stay private? however do I shield privacy of my users?

C23: however, do I forestall my data obtaining latched move into case the supplier is probably going to fail?

C24: however, do I make sure that data isn't remanent in storage (i.e., bits are very wiped-out once delete operation is performed)?

C25: however, do i do know that updates to my data are half-track properly and that i get the right copy every time asking is made?

C26: a way to maintain data confidentiality and integrity wherever multiple cloud parties are concerned in processing?

Data governance, as well as all the problems higher than, maybe has most significant implications for providers. C21 is comparatively simple to handle through sturdy secret writing mechanisms like AES and DES. The management may be done through common PKI infrastructure. Labels are placed on repositories (basically file servers) encrypted with a public key that's related to each user. The user possesses the non-public a part of the key and is that the only 1 that may decipher the

labels encrypted with the general public half. this way of encrypted data in cloud is sweet for storage or archival however is very expensive to method. However, a brand new style of secret writing, referred to as Homomorphic secret writing allows the ciphertext to be processed publically cloud while not decrypting it. Service suppliers ought to guarantee storage integrity against loss of non-volatile data because of failure of storage sub- system and bit rots. Distributed data cyphering like Erasure cryptography and network cryptography has been studied and used extensively, especially for fault tolerant and extremely on the market storage in cloud. what is more, data origin is needed in the public clouds. Transport level security (TLS) measures guarantee secure data transfer over networks. The common procedure of masking data for individual client record confidentiality (C22) is data anonymization. within the context of risks like health, analysis is being performed to better common anonymization techniques like k-anonymization with distributed anonymization.

Several considerations like C23 may be resolved by business and maintaining a typical set of data interfaces and transformation logic. Storage Network business Association (SNIA) has prompted a set of remedial mechanism for data remanence downside C24. one among the suggestion is to encipher the "to delete" data then shred the key! Finally, device management becomes a essential perform in data remanence. Things like remote management of mobile devices, remote wipe-out or remote disabling of a tool ought to be factored into the cloud eco-system. C25 basically highlights the important issue of data origin. Cloud employs symbol based mostly data objects like S3 objects in Amazon cloud. because of multiple synchronous access and latency in persistence and in absence of a proper file-system for journaling, data queries might get inconsistent result and data lineage / update history might wander away. Researchers have planned origin aware storage system (PASS) wrapper layer on high of easy cloud storage. Multi-cloud science activities (C26) like distributed data processing would need subtle privacy conserving models.

2.3 Concern C3: Are customers having access to cloud-offerings in reality mine and may all my real customers get seamless and stable accessibility?

Another basic cloud security concern is that of user authentication, authorization and access management (AAA). the primary question is that of access management - mapping of ancient enterprise directory structure like LDAP and Active Directory for providing structure role-based access to a cloud PaaS or SaaS supplier. The second question is that of identity management like authentication, fraud and phishing. Of explicit importance can federated identity management in multi cloud situation.

C31: however, do I make sure that there's no un-authorized access to my cloud by a dissatisfied employee, anyone who left the organization or by an identity thief?
C32: a way to guarantee correct levels of authentication to cloud services? however do I manage multi-device access?
C33: In multi-cloud situation, however do I make sure that I give / delegate access to users to completely different security domains in order that the end-to-end work flow is seamless?

Similarly, in hybrid cloud, however do I produce a minimum common access management and identity structure?

Implication I3: guarantee correct access management and identity management. Synchronizing enterprise and external cloud services access management lists within the context of C31 to confirm right access roles could be a terribly important difficult issue as PaaS and SaaS platforms have complicated hierarchies and lots of fine-grained access capabilities (tenant org level, sub- tenant, and individual user levels). This assumes importance as users, who left the organization, should still doubtless exploit access provided in cloud; unless those credentials are revoked quickly. However, we have a tendency to acdata this as additional of a method issue than a technology one. Use of ordinary languages like Service Provisioning terminology promoted by OASIS, will change quicker user account provisioning and de- provisioning. Cloud service authentication (C32) presents some attention-grabbing issues. Cloud services are progressively obtaining accessed through browsers and skinny mobile devices running new set of applications like HTML-5. Browsers don't have direct suggests that of handling XML signatures and XML cryptography, and consider the underlying SSL layer for handshaking. thus, this channel might become a possible threat if not secured properly. this could push enterprises to use VPNs whereas communicating to cloud. The Cloud Security Alliance [20] recommends cloud supplier to supply stronger authentication mechanism and conjointly (optionally) enable users to use third party identity management and singlesign-on platforms like Microsoft Passport. this could cause an extra set of authentication complexity. on-line open identity management communities like OpenID ,OAuth etc. are proliferating and every brings its own set of integration challenges for cloud suppliers. There is a growing chorus on "inter cloud" hand-offs and federate identity management (C33), possibly through assertion tokens like Security Assertion terminology (SAML) or privilege management infrastructure supported x.509 certificates. The ongoing standardization work WS-federation might give some facilitate during this facet. Cloud federations ought to establish a collection of common security token services and identity suppliers. But in dynamic cloud situation these trust relations might not work. we want to develop additional versatile cases of identity federation

2.4 Concern C4: Are cloud carriers compliant with regulation?

Various sorts of compliance exist in cloud computing. business initiatives on compliance like accounting (Sarbanes-Oxley, Basel), health data privacy (HIPAA), and mastercard data safety (PCI) square measure necessary for various verticals. equally standards around outsourcing auditing (SAS70) govern cloud based mostly outsourcing vendors. U.S.A. Federal and alternative international laws like the transmission Privacy Act (ECPA) will govern issues for data privacy in cloud. Transparency of data location may be a elementary premise of cloud computing. In reality, different geographical data locations might come back beneath completely different jurisdictions, every with its own set of laws that govern data privacy and security. laws and national security matters need effective auditing and sharing of audit reports with relevant authorities. Today, it's not clear if Govt. agencies have enough trust in cloud security readiness. Federal Trade Commission (FTC) of US, during a recent filing, has expressed that they're work security implications of cloud based mostly remote processing . Some law conjointly mandates that critical monetary and Defense connected data doesn't leave the perimeter of the country. Easy accessibility to data 'on demand' for audit purpose is additionally mandated. for instance, in many jurisdictions the govt has the ability to access any data residing at intervals their limits for a "reasonable" cause. data will even be confiscate if the service supplier comes on the incorrect aspect of the law enforcement agencies . Note that compliance issues aren't any longer restricted to existing regulations, however touch newer ones specific to cloud computing. Cloud suppliers typically follow legal compliance and written agreement obligations. However, there are instances, just like the case of Google Docs in March 2009, wherever full security and data safety audit reports haven't been created public and data integrity was allegedly compromised by improper access This created ECPA petition to FTC to initiate action moreover, suppliers ought to be hospitable forensics specified data provenance are often achieved and whenever needed, mala-fide actions are often copied back to the origins. several compliance specific issues, within the minds of enterprises, square measure perceived (fear of the un-known) than real; and higher disclosers on a part of suppliers can dispel a number of the concern. Due to serious issues concerning the placement of data and process entities at intervals the cloud, some sort of location awareness is needed. the first aim being the ability to enforce and establish necessities like "at any time data ought to solely reside at intervals these jurisdictions". Current standardization efforts just like the Open Grid Forums cloud computing interface (OCCI) specification, that is supposed to produce mechanisms of querying the implementations for data, don't nonetheless offer infrastructure-based location awareness and there square measure definitely discussions and efforts happening around this space.

SECURITY ISSUES ASSOCIATED WITH THE CLOUD:

Cloud computing and storage give users with capabilities to store and method their data in third party data centers. Organizations use the cloud in a very type of completely different service models (with acronyms such as SaaS, PaaS, and IaaS) and readying models (private, public, hybrid, and community).

Security considerations related to cloud computing ar usually classified in 2 ways: as security issues round-faced by cloud suppliers (organizations providing software-, platform-, or infrastructure-as-a service via the cloud) and security problems round-faced by their customers (companies or organizations World Health Organization host applications or store data on the cloud). The responsibility is shared, however, and is commonly elaborated in a very cloud provider's "shared security responsibility model" or "shared responsibility model. The supplier must make sure that their infrastructure is secure which their clients' data and applications are protected, while the user should take measures to fortify their application and use robust passwords and authentication measures.

When a company elects to store data or host applications on the general public cloud, it loses its ability to have physical access to the servers hosting its info. As a result, probably sensitive data is at risk from corporate executive attacks. in keeping with a 2010 Cloud Security Alliance report, corporate executive attacks are one in every of the top seven biggest threats in cloud computing. Therefore, cloud service suppliers should make sure that thorough background checks are conducted for workers World Health Organization have physical access to the servers within the data center. to boot, data centers are suggested to be ofttimes monitored for suspicious activity.

In order to conserve resources, cut costs, and maintain potency, cloud service suppliers typically store more than one customer's data on a similar server. As a result, there's an opportunity that one user's non-public data may be viewed by different users (possibly even competitors). To handle such sensitive things, cloud service suppliers ought to guarantee correct data isolation and logical storage segregation.

The in depth use of virtualization in implementing cloud infrastructure brings distinctive security considerations for customers or tenants of a public cloud service. Virtualization alters the connection between the OS and underlying hardware – be it computing, storage or perhaps networking. This introduces a further layer – virtualization – that itself should be properly designed, managed and secured. Specific considerations include the potential to compromise the virtualization code, or "hypervisor". whereas these considerations are for the most part theoretical, they are doing exist. as an example, a breach within the administrator digital computer with the management code of the virtualization code will cause the total datacenter to travel down or be reconfigured to associate degree attacker's feeling.

CLOUD SECURITY CONTROLS

Cloud security design is effective provided that the proper defensive implementations square measure in situ. An efficient cloud security design ought to know the problems that may arise with security management. the safety management addresses these problems with security controls. These controls square measure put in situ to safeguard associate weaknesses within the system and cut back the impact of an attack. whereas there are many sorts of controls behind a cloud security design, they'll sometimes be found in one amongst the following categories:

Deterrent controls

These controls square measure meant to cut back attacks on a cloud system. very like a serious warning call on a fence or a property, deterrent controls usually cut back the threat level by informing potential attackers that there'll be adverse consequences for them if they proceed. (Some take into account them a set of preventive controls).

Preventive controls

Preventive controls strengthen the system against incidents, typically by reducing if not truly eliminating vulnerabilities. robust authentication of cloud users, as an example, makes it less likely that unauthorized users will access cloud systems, and a lot of seemingly that cloud users square measure positively known.

Detective controls

Detective controls square measure meant to observe and react suitably to any incidents that occur. In the event of associate attack, a detective management can signal the preventative or corrective controls to address the difficulty. System and network security observation, as well as intrusion detection and

prevention arrangements, square measure usually used to observe attacks on cloud systems and also the supporting communications infrastructure.

Corrective controls
Corrective controls cut back the implications of an event, unremarkably by limiting the harm. They come into impact throughout or once an event. Restoring system backups so as to build a compromised system is associate example of a corrective management.

DIMENSIONS OF CLOUD SECURITY:
It is usually suggested that info security controls be elect and enforced according and in proportion to the risks, usually by assessing the threats, vulnerabilities and impacts. Cloud security issues will be classified in varied ways; Gartner named seven whereas the Cloud Security Alliance known twelve areas of concern. Cloud access security brokers (CASBs) area unit software package that sits between cloud users and cloud applications to supply visibility into cloud application usage, data protection and governance to observe all activity and enforce security policies.

SECURITY AND PRIVACY:

Identity management
Every enterprise can have its own identity management system to manage access to info and computing resources. Cloud suppliers either integrate the customer's identity management system into their own infrastructure, mistreatment federation or SSO technology, or a biometric-based identification system, or give associate degree identity management system of their own. CloudID, for instance, provides privacy-preserving cloud-based and cross-enterprise biometric authentication. It links the hint of the users to their life science associate degreed stores it in an encrypted fashion. creating use of a searchable encrypting technique, biometric authentication is performed in encrypted domain to create positive that the cloud supplier or potential attackers don't gain access to any sensitive data or perhaps the contents of the individual queries.

Physical security
Cloud service suppliers physically secure the IT hardware (servers, routers, cables etc.) against unauthorized access, interference, theft, fires, floods etc. and make sure that essential provides (such as electricity) area unit sufficiently strong to attenuate the likelihood of disruption. this can be ordinarily achieved by serving cloud applications from 'world-class' (i.e. professionally specified , designed, made, managed, monitored and maintained) data centers.

Personnel security
Various info security issues with reference to the IT and different professionals related to cloud services area unit usually handled through pre-, para- and post-employment activities like security screening potential recruits, security awareness and coaching programs, proactive.

Privacy
Providers make sure that all essential data (credit card numbers, for example) area unit covert or encrypted which solely approved users have access to data in its totality. Moreover, digital identities and credentials should be protected as ought to any data that the supplier collects or produces regarding client activity within the cloud.

CLOUD VULNERABILITY AND PENETRATION TESTING:
Scanning the cloud from outside and within mistreatment free or industrial merchandise is crucial as a result of while not a hardened atmosphere your service is taken into account a soft target. Virtual servers ought to be hardened simply like a physical server against data escape, malware, and exploited vulnerabilities. "Data loss or escape represents twenty four percent and cloud connected malware three percent of threats inflicting cloud outages"

Scanning and penetration testing from within or outside the cloud should be approved by the cloud provider. Since the cloud could be a shared atmosphere with different customers or tenants, following penetration testing rules of engagement in small stages could be a obligatory demand. Violation of acceptable use policies will result in termination of the service

DATA SECURITY:
There are unit various security threats related to cloud data services. This includes ancient threats and non-traditional threats. ancient threats include: network eavesdropping, banned invasion, and

denial of service attacks, however conjointly specific cloud computing threats, like facet channel attacks, virtualization vulnerabilities, and abuse of cloud services. the subsequent security necessities limit the threats.

CONFIDENTIALITY:
Data confidentiality is that the property that data contents don't seem to be created out there or disclosed to banned users. Outsourced data is hold on during a cloud and out of the owners' direct management. solely approved users will access the sensitive data whereas others, together with CSPs, shouldn't gain any info of the data. Meanwhile, data house owners expect to totally utilize cloud data services, e.g., data search, data computation, and data sharing, while not the escape of the data contents to CSPs or different adversaries.

ACCESS CONTROLLABILITY
Access controllability means a data owner will perform the selective restriction of access to their data outsourced to the cloud. Legal users will be approved by the owner to access the data, whereas others can not access it while not permissions. Further, it's fascinating to enforce fine-grained access management to the outsourced data, i.e., completely different users ought to be granted different access privileges with reference to different data items. The access authorization should be controlled solely by the owner in untrusted cloud environments.

INTEGRITY
Data integrity demands maintaining and reassuring the accuracy and completeness of data. a data owner always expects that her or his data during a cloud will be hold on properly and trustworthily. It means the data shouldn't be illicitly tampered, improperly changed, deliberately deleted, or maliciously fabricated. If any undesirable operations corrupt or delete the data, the owner ought to be ready to observe the corruption or loss. Further, once a little of the outsourced data is corrupted or lost, it will still be retrieved by the data users.

ENCRYPTION:
Some advanced encrypting algorithms that are applied into cloud computing increase the protection of privacy. during a observe referred to as crypto shredding, the keys will merely be deleted once there's no additional use of the data.

Attribute-based-encryption (ABE)
Attribute-based-encryption could be a kind of public-key-encryption during which the key of a user and also the ciphertext area unit dependent upon attributes (e.g., the country during which he lives, or the type of subscription he has). In such a system, the cryptography of a ciphertext is feasible provided that the set of attributes of the user key matches the attributes of the ciphertext.

Ciphertext-policy-ABE (CP-ABE)
In the CP-ABE, the encryptor controls access strategy. the most analysis work of CP-ABE is targeted on the look of the access structure.

Key-policy-ABE (KP-ABE)
In the KP-ABE, attribute sets area unit wont to describe the encrypted texts and also the personal keys area unit associated to specified policy that users can have.

Fully-homomorphic-encryption (FHE)
Fully homomorphic encryption permits computations on encrypted data, and conjointly permits computing add and product for the encrypted data while not cryptography.

Searchable-encryption (SE)
Searchable encryption could be a science system which provide secure search functions over encrypted data. SE schemes will be classified into 2 categories: SE supported secret-key (or symmetric-key) cryptography, and SE supported public-key cryptography. so as to enhance search potency, symmetric-key SE usually builds keyword indexes to answer user queries. This has the apparent disadvantage of providing multimodal access routes for unauthorized data retrieval, bypassing the encryption algorithmic rule by subjecting the framework to various parameters inside the shared cloud environment.

CONCLUSION
Cloud computing as a platform for outsourcing and remote process of application and data is gaining fast momentum. Security concerns; particularly those around platform, data and access will prove to be hurdles for implementation of public and hybrid clouds. during this paper, we've tried to categories

the key issues and discuss the connected technical implications and analysis problems, together with some advanced security problems specific to cloud. we've conjointly mentioned some problems concerning security related regulative compliance in cloud. to boot, we've conferred few high-level steps towards a security assessment framework. We believe that this survey, although short, provides a broad-level summary of vital current and emerging security issues in cloud and delineate main analysis challenges. As a resultant work a more elaborate survey will be undertaken. we have a tendency to conjointly decide to flesh out the assessment framework any, supported by tools – to assist migration of enterprise applications to cloud.

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PREDICTION OF STOCK MARKET CRASHES AND CRISIS USING PREDICTIVE ANALYSIS TECHNIQUES AND ALGORITHM

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ABSTRACT

Prediction of stock market trends has been an area of great interest to those who want to book profit by investing in the stock market and for researchers who are trying to reveal the secret information of market data.

This research paper focus on to combine the multiple existing techniques into a much more robust predictive model to identify the stock market crashes and crises which will help investors to minimize the risk involved in the investment market.

Existing methods such as statistical ML and the advantage of neural network may be too limited. but they can still help us achieve error-free outcomes in a different scenario. Our prediction model can provide a more precise and versatile recommendation by integrating these techniques.

Keywords: Predictive analysis, regression models, market indicators

INTRODUCTION

A Share Market crash is a rapid and often sudden fall in stock prices External economic events combine with crowd psychology to create a positive feedback loop were some investors sell, causing more investors to sell the stocks which cause the crash in stock market.

Excessive economic optimism, a market where price-earnings ratio surpass long-term averages, and heavy use of margin debt and leverage by market investors are all factors that leads to the market crashes. Other factors, such as conflicts, major corporate hacks, regulatory and federal law changes, and natural disasters in economically strong regions, may all contribute to a substantial drop in the market price of a huge range of stocks.

Despite the crash, stock prices for companies competing with the affected companies could increase. An investment market crash has no numerical significance, but in layman terms it is described as a drop in a market index/value of more than 10% over several days.

Because crashes involve panic selling and fast price drops, they differ from bear markets, which are defined as periods of falling stock market prices measured over time. As investors seek a fast exit or leave option, the market crash often begins with a dribble and ends with a catastrophe.

The formidable relationship of bull market, bear market, and investment market bubble, it has the potential to crash in unfavourable ways.

Crash Date	Event	Points Lost	% Lost
23rd March 2020	COVID-19	3943.72	13.15%
28th April 1992	Harshad Mehta Scam	570	12.77%
24th October 2008	US Financial Crisis	1070	10.95%
12th March 2020	COVID-19	2919.26	8.18%
16th March 2020	COVID-19	2713.41	7.96%
21st January 2008	US Financial Crisis	1408	7.40%
18th May 2006	--	826	6.76%
17th March 2008	US Financial Crisis	951	6.03%
24th August 2015	--	1624	5.93%
9th November 2016	Demonetisation	1689	5.90%

Bull Market:

It happens when the investors are positive about market and the economy also, when the demand is exceeds supply resulting in an rise in share prices. It can last from 2 to 9 years. All it requires is a significant market event to trigger crisis of confidence and attract more sellers in the market

Bear Market:

This market occurs when the stock market loses 20% of its value over the course of 52 weeks. It usually lasts four years or less. It usually follows a investment market collapse. As a result, investors become pessimistic and begin to sell their stock, causing prices to fall as supply outpaces demand.

Stock Market Bubble:

When investors adopt a crowd mentality and buy stocks in large groups, it inflates and bursts, resulting in bloated and unrealistically high share prices.

Available Indicator of stock market crashes: -

Rampant Speculation: - When speculation becomes rampant, it is the first step toward disaster. As a result of the rampant speculation, the market has a positive feedback loop. Due to this, the stock prices are inflated beyond their true worth. As a result of the current high prices, a bubble has formed, and future price rises are expected.

Low Growth Rates: - A recession in and of itself does not suggest that the economy is about to crash. However, rampant speculation combined with a declining growth rate is a strong combination. They've been known to bring stock markets crashing down in the past. Economists use a variety of metrics to assess the state of the economy. Gross Domestics Product (GDP) is commonly used metrics. Different reasons such as unemployment, inflation, and so on are also considered.

The trigger events: - A trigger event is usually the start of a market trend. This is a significant occurrence that is well-known in the industry. This may be the implementation of a new tax or the advent of bad economic results from a nation such as U.S. Any of these occurrences indicates that the business climate will deteriorate soon

.The fight of bears and bulls: - Markets are made up of opposing forces. Opposing powers collide in markets. As a result, if a new tax is pushing down stock values, there will still be a community of investors who feel the market has dropped far enough and will seek to build a counter-rally because of this, a war between the bulls and the bears erupts. While everyone could win and push the trend, the original trend typically wins out. This is because it is sponsored by institutional investors as well.

Using regression model for predicting the stock market crashes: -

Machine learning methods include regression techniques. In most regression models, numerical data inputs are used, which may include an infinite or a diverse set of values. To collect numerical data in a real-valued format, the basic analysis method is used.
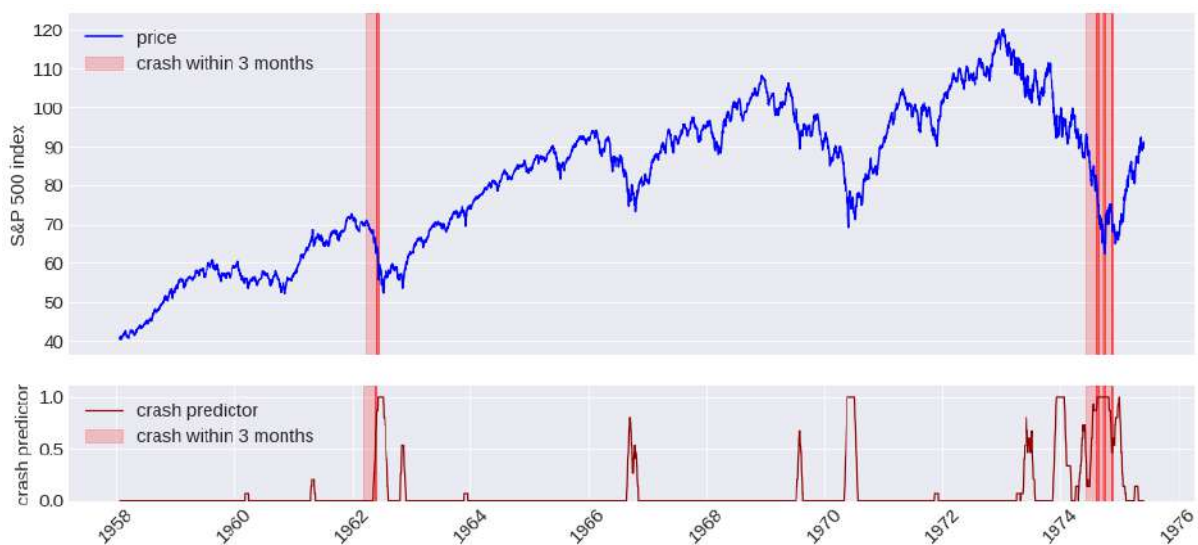
After that, the numerical values are converted into ordinal values using a new transformation method. Only a set of categorical enumerated values are found in the ordinal values. Based on the enumerated values, the relationships between the dependent and independent ordinal variables are correlated.

Various economic indicators can be used to forecast an economy's future results The consumer price index (CPI), producer price index (PPI), gross domestic product (GDP), and the model (M) was built using the money supply, and surprisingly it worked very well with coefficient of determination about 0.8. In 2008 financial crisis, a computational scheme was developed to effectively generate implied volatility, which was shown to increase the efficiency of the Black Sholes model, mathematically predicting the occurrence. At the time, it was generally accepted in market investment firms that the model was optimal and that adding additional variables would not boost it. This, however, would not inherently be a static outcome, as with the passage of time and the increasing availability of data, a more efficient model could be developed.

The independent variables were x1=GDP, x2=PPI, x3=CPI, and x4=M; the dependent variable was the S&P 500's actual value. we can build our MLR model for the timeframe of Jan 1990 to Jul 2013 using easily accessible month on month-based data and a regression model

$$y = \beta_0 + \beta_1 x_1 + \beta_2 x_2 + \beta_3 x_3 + \cdots$$

Here, we can't go back any further at this stage, but the regression model can be built for any time span where the variables are readily accessible.

Other variables were attempted to be added in the current analysis. For example, the unemployment rate, interest rate, value of international stock markets, value of exchange rates of various international currencies, and various consumer trust polls were all considered.

This procedure was carried out one by one, followed by a statistical model analysis. Furthermore, variables that demonstrated a statistical rationale for model improvement were held, whereas those that did not were not. The variables z1=GDP and z2=FFR (fed funds rate) as well as z3=M and z4=U (unemployment rate) were found to be the most useful after a detailed study. If we utilize a four variable model it appears that an extremely improved model would be.

y = 965.0635 + 349.0002z1 - 12.1984z2 + 186.5665z3 - 177.406z4

Although this model is not statistically accurate, one would prefer to retain the FFR variable because it has been found that sudden shifts in that variable have a major influence on the stock market. For example, while analyzing data over a small time period, such as the years 2000–2010. In 2017, the impact of the FFR will be seen. More weight is given to the model, which is rational given the events that happened after the real estate crash during that time period.

	Coefficient	St Error	t Stat
Int	965.0635	6.662222	144.8561
GDP	349.0002	32.39814	10.77223
FFR	-12.1984	14.47617	**-0.84265**
MS	186.5665	28.78833	6.480629
UI	-177.406	8.24829	-21.5083

However, if one prefers to use a statistically sound method that excludes the FFR variable, the model can be obtained.

Yi = 965.0635 +362.1807z1 + 183.392z3 - 173.762z4

	Coefficients	Standard Error	t Stat
Intercept	965.0635	6.659789	144.909
GDP	362.1807	28.36177	12.77003
MS	183.392	28.53035	6.427962
UI	-173.762	7.021221	-24.7482

ANOVA

|	df	MS	F
Regression	3	41499537	2333.34
Residual	397	17785.47	.
Total	400		

Fig. 2 The data analysis of the optimal 3 variable model.

As a result, we have not only discovered a statistically optimal model with a very solid F statistic and an incredible multiple R 2 value of 0.95, but we have also discovered a computationally simpler (better) model.

Furthermore, these findings are fascinating because they reveal what really drives the market. The highly important macroeconomic indicators are: the addition of money in circulation, the addition of capital floating around the U.S also the un-employment rate. Furthermore, it is basically telling us that government-created indices and prices, such as PPI and FFR, don't have much impact on the overall market as one would expect.

CONCLUSION: -

In this research previous regression model has been revised in this work to improve it statistically, with a substantial improvement in the coefficient of determination (R2) and the F stat (P value), while also simplifying it computationally due to the reduction in the count of entered data. With a common sense approach, one can see, as seen in the graph below, that this model predicted the "price top before market crash" due to exceptionally high deviations above. Furthermore, it portrayed an important point that reflected the "market bottom."
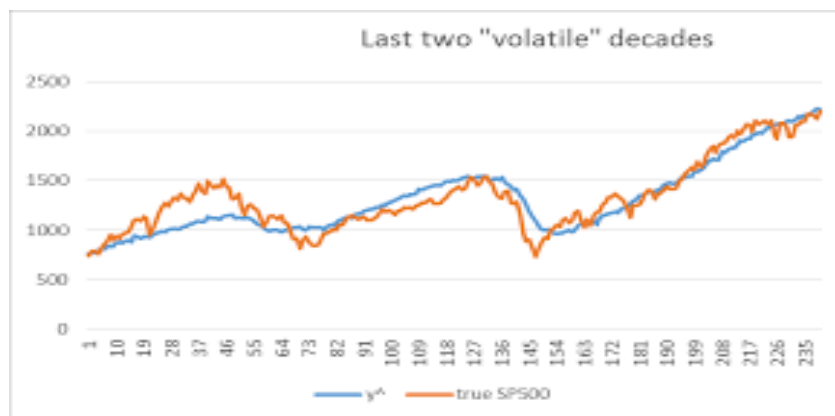
While this knowledge may be useful for financial traders in predicting long-term market patterns, which could lead to a high return on investment, it is not the mathematical goal of our research. As is well known, the issue of market volatility has lately gotten a lot of attention.

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IMPACT OF ONLINE LEARNING ON STUDENTS RETENTION CAPACITY

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ABSTRACT

The purpose of this research is to examine the retention capacity of students during online classes. This research is to ascertain critical reasons to explore solutions to boost retention rates. This will create a starting point and foundation for a more in-depth research and analysis of retention issues in online classes. This study is being conducted during epidemic period of Covid-19 to check the effect of online teaching on students' performance.

Keywords: Online classes, pandemic, students' retention capacity.

INTRODUCTION:

Coronavirus is a contagious disease and its symptoms include cough, cold, sneeze, etc. There was on sudden emergence of this disease and it was wide-spreading among human beings. To control the situation and for the well-being of the students. Government took decision to close down schools & colleges decided to adopt virtual teaching system rather than traditional method of teaching. The present study is to develop and test students retaining capacity pertaining to E-teaching during Covid-19, where teachers and students have no other option than to use online platform which is uninterrupted way of learning and teaching.

REVIEW OF LITERATURE:

According to Schoarsmith (2012) research it indicates that some of the reasons students have for joining online courses is related to financial factors, such as saving money on transportation, and ability to continue working while pursuing a degree. Shay and Ree (2004) research indicate something similar. When asked about the most important reasons for choosing online courses based on considerations such as convince, flexibility of programs and affordability.

Although most of those reasons could be valid and viable, they are also indicative that learners do not consider the magnitude of workload and the required depth of their involvement in the online courses as a reasonable criteria to make the decision to go online. As a result, when they attend the online classes, many of them are unpleasantly surprised to find that the online learning environment is very largely self-driven and dependent on the learners ability to manage academic responsibilities with fewer props than those available in face-to-face classes. If learners have not experience this kind of self-imposed academic before, they are very likely to experience demotivation and loss retention capacity force than to quit. If learners are not comfortable with self-learning and construct knowledge out of their own intimidating online environment can become intimidating for them.

According to the Research of Chan and Jang (2003). They discuss 'how' in the context of online learners self-determination theory prescribes three needs, a namely, a sense of control, feelings of competency for tasks and a sense of inclusion or affiliation with others. The satisfaction of those need foster better performance and the absence may lead to highly negative performance.

OBJECTIVE:

1. To understand the impact of online learning on students retention capacity.

2. To analyze retention capacity of students on online lecture.

3. To evaluate the retention capacity of students

4. To find out how to tackle with students behavior towards online learning.

5. To suggest how to increase retention capacity of students in online lecture.

6. To present the impact during online lecture on students retention capacity.

7. To compare retention capacity.

8. To promote students retention capacity during online lecture.
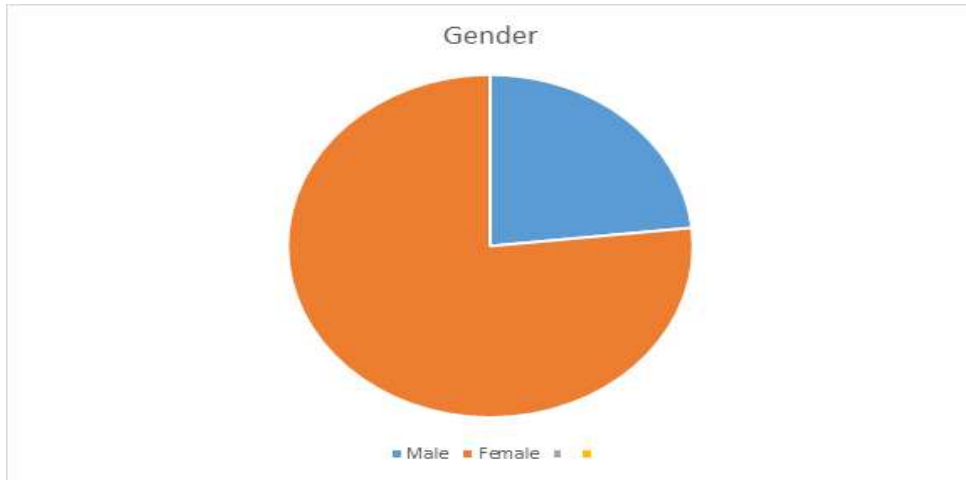
HYPOTHESIS OF THE STUDY:

- The Retention Capacity of Students has been increasing due to Online Learning.

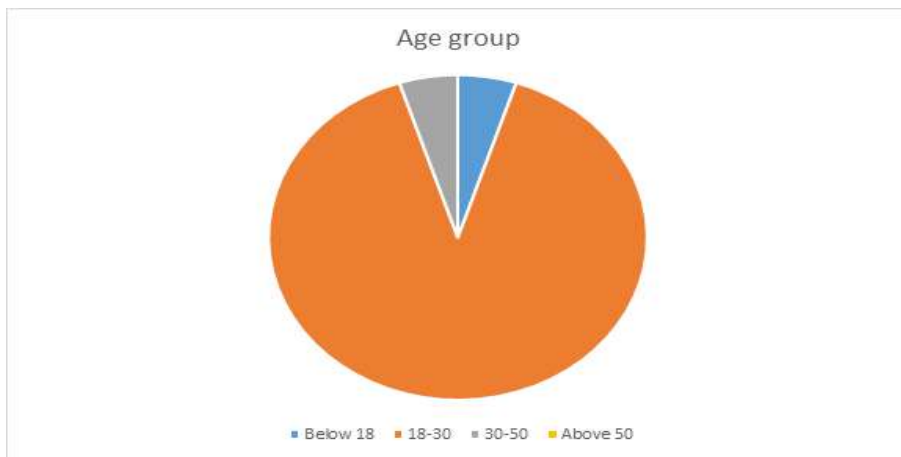- The Retention Capacity of Students has been decreasing due to Online Learning.

LIMITATIONS OF THE STUDY:

- This Research Paper is limited up to 60 responses.

- This Research Paper has limitations of time.
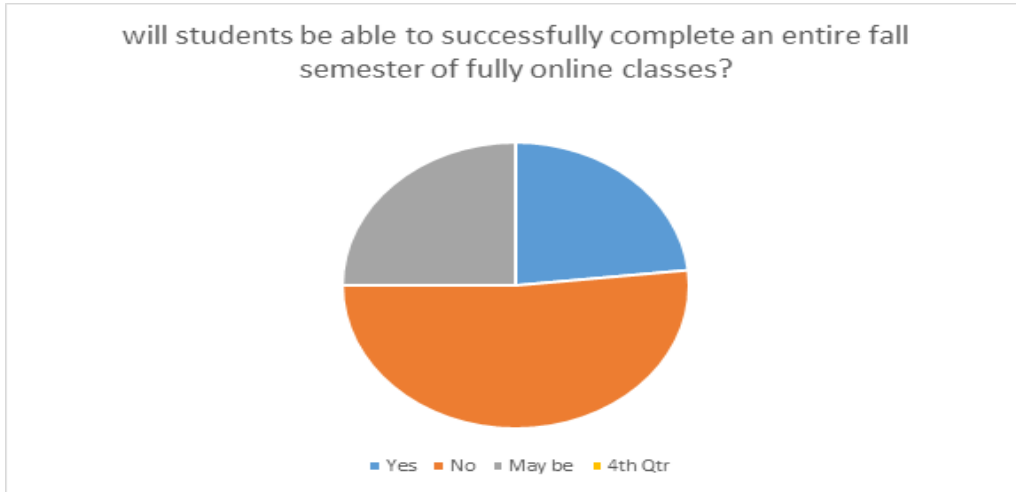
ANALYSIS AND INTERPRETATION OF DATA:

Gender

1] In the above pie-chart it is seen that the data was collected from 23.3% of male and 76.7% of female.
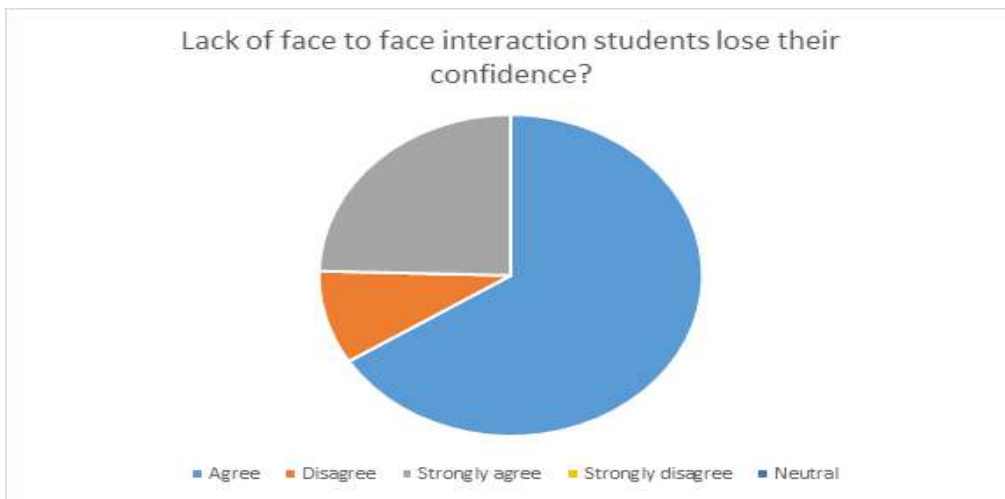

Age group

2] In the above pie-chart it is seen that the responses has been collected from 5% people below 18 age group, 5% people above 30-50 age group and 90% of data has been collected from the students between 18-30 age group.

Does online learning increase retension ?
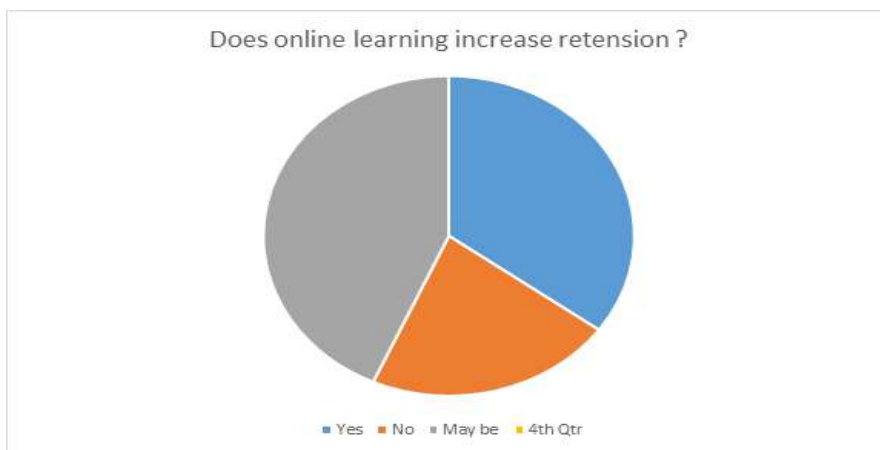
3] In the above pie-chart it is seen that 21.7% of students think that online learning increases retention, 35% of students think that online learning do not increase retention rate where 43.3% of students are not sure about the retention capacity during online lecture.

will students be able to successfully complete an entire fall semester of fully online classes?

■ Yes ■ No ■ May be ■ 4th Qtr

4] In the above pie-chart 23.3% of students says that they will be able to complete an entire semester during online classes and 51.7% of students say that will not able to complete the entire semester whereas 25% of students are still unsure about their decision.


Lack of face to face interaction students lose their confidence?

■ Agree ■ Disagree ■ Strongly agree ■ Strongly disagree ■ Neutral

5] In the above pie-chart, it is seen that total 58.3% of student agree that they lose confidence due to lack of face to face interaction, 8.3% of students disagree that they lack of confidence and 21.7% of students strongly agree that they lack confidence and 11.7% of students decision is neutral.

Capacity of grasping study is become less because of online learning ?

■ Agree ■ Disagre ■ Neutral ■ Strongly agree ■ Strongly disagree
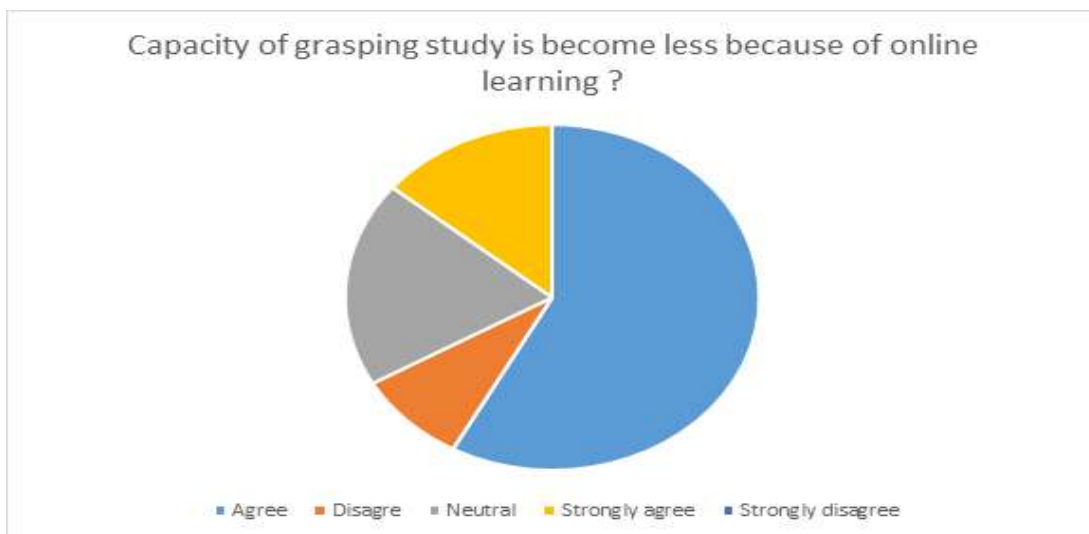
6] In the above pie-chart it is shown that 55% of students agree that the capacity of grasping student become less while online learning , 13.3% of students strongly agree and 8.3% of students disagree, 5% of students strongly disagree and 18.3% of students decision is neutral about grasping capacity becoming less because of online learning.

**Student gets lazy because of online learning ?**
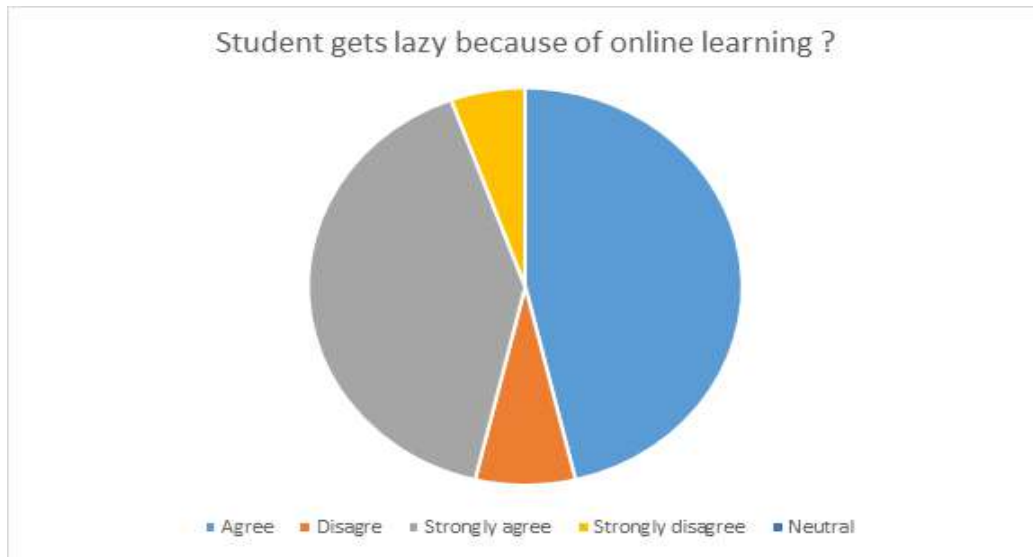
7] We can see in the above pie-chart is 41.7% respondent are agree that students becoming lazy because of online learning. From that 36.7% peoples are strongly agree. The neutral respondent is 10%. The percentage of disagree is 6.7% and strongly disagree is 5%.


Students lose their memory capabilities because of online learning?
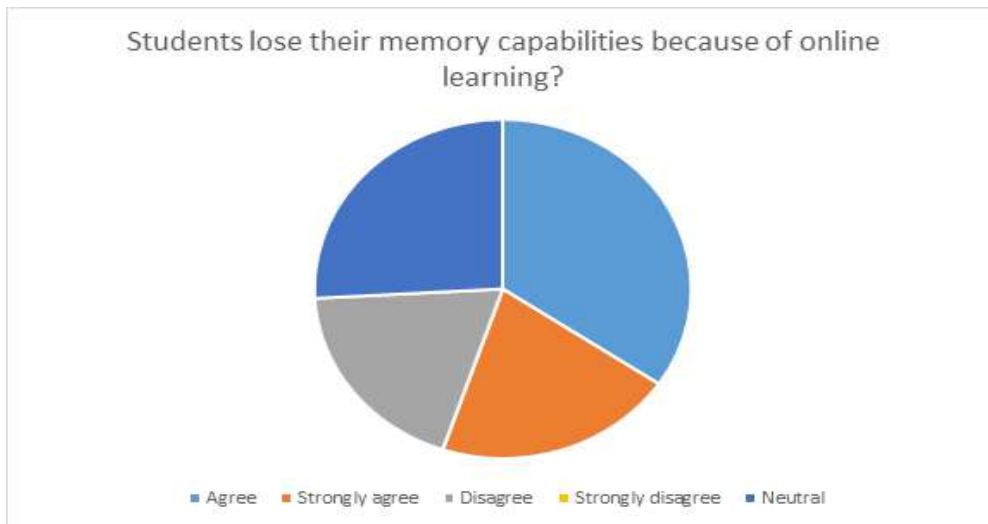
8] In a pie-chart, we would see that 33.3% are given agree response that means they agree students lose their memory because of online learning, apart from that 18.3% are disagree. The percentage of strongly agree is 20% and strongly disagree are only 3.4%. The neutral respondent are 25%.

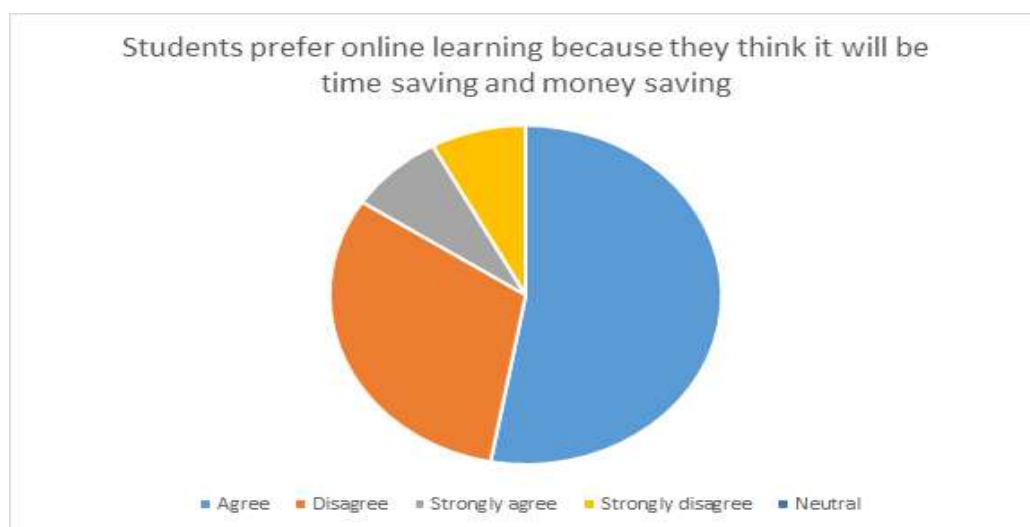**The attitude of students towards sports and other activities is became invisible?**
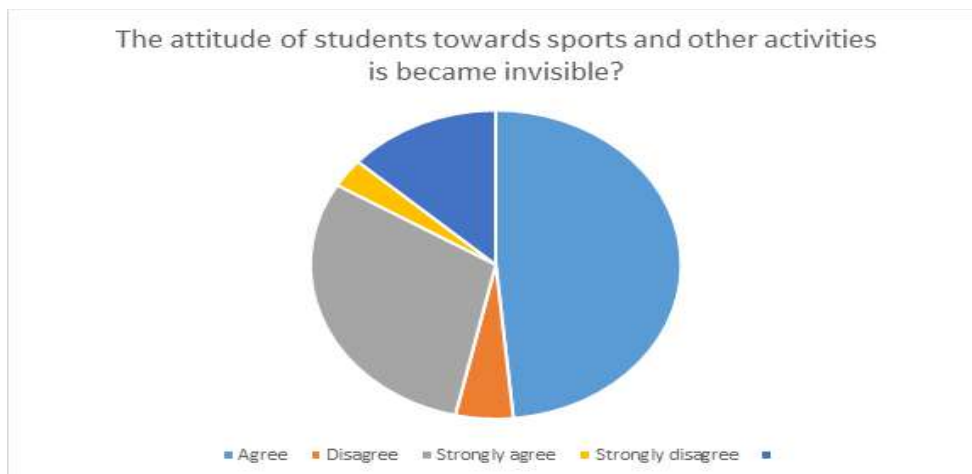
9] In a pie-chart, the data shows that 48.3% respondent agree that the attitude of students towards sports and other activities became invisible & 30% respondent are strongly agree. Whereas 5% are disagree and 3.1% are strongly disagree. The percentage of neutral is 13.3%.

Students spends more time on mobile to give excuse of online learning?

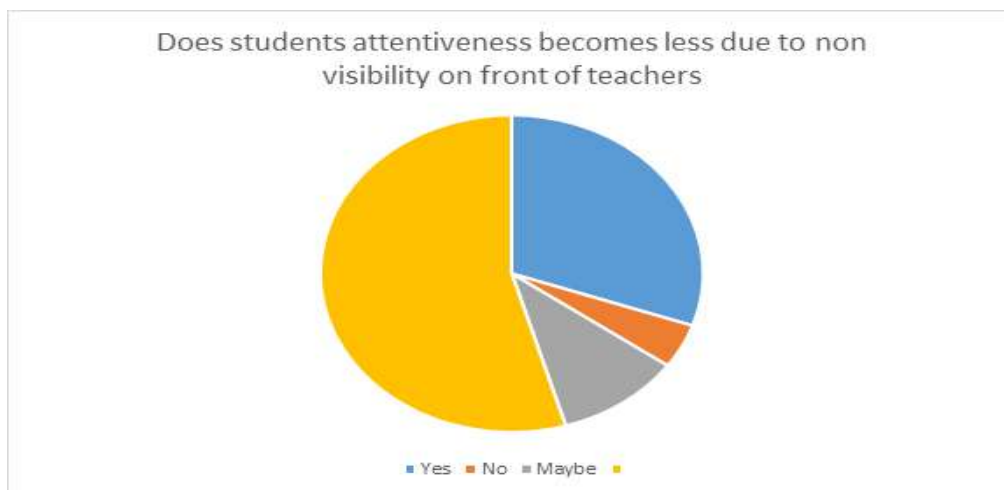■ Agree ■ Disagree ■ Strongly agree ■ Strongly disagree ■ Neutral
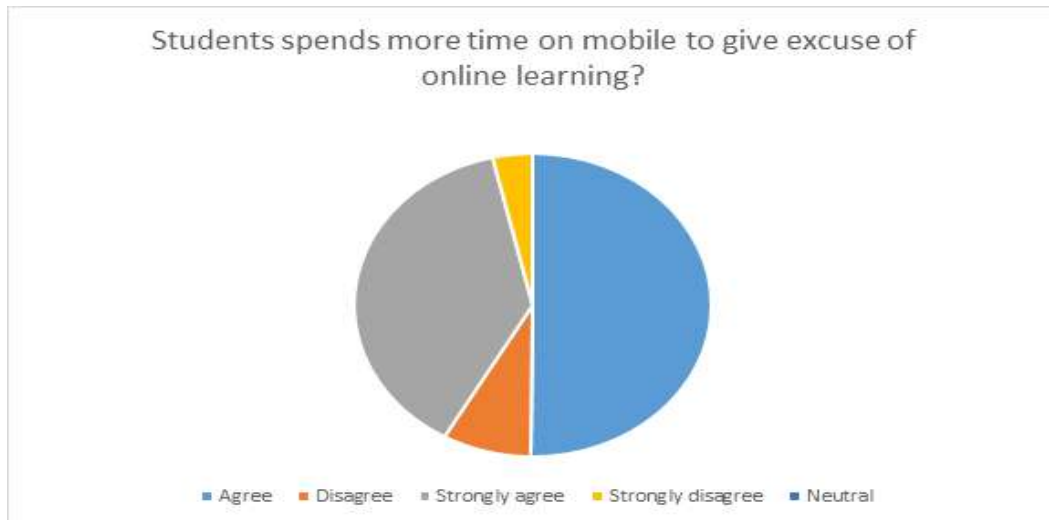
10] In the above pie-chart, 31.7% are strongly agree that students spends more time on mobile to give excuse of online learning, 41.7% respondent are agree. Whereas 6.7% respondent are disagree, 3% are strongly disagree & 30% are respondent are neutral.

Students gets distracted by home noise or something in online learning

■ Yes ■ No ■ May be ■
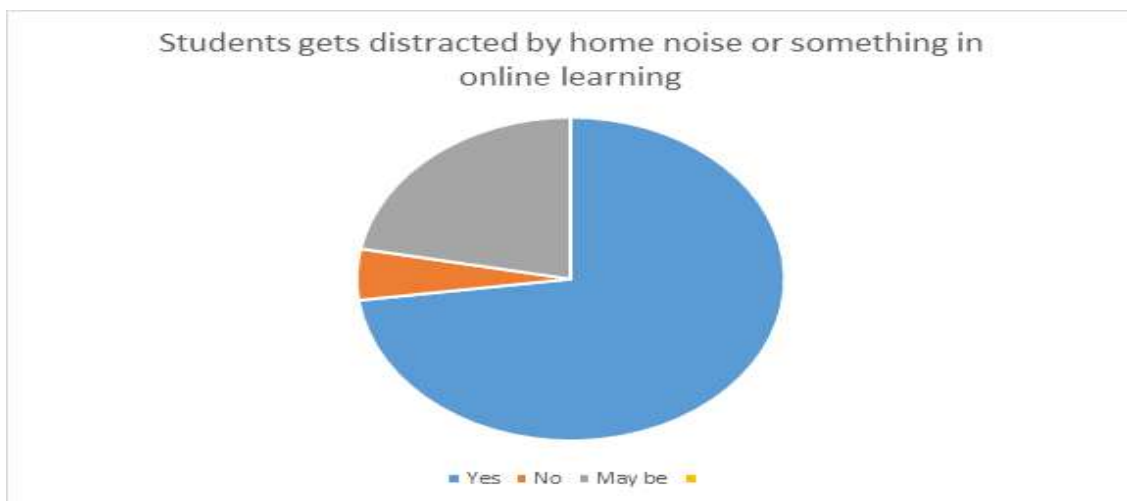
11] The above pie-chart shows that 72.9% of students agree with fact that students agree with fact that students gets distracted by home noise while online learning and 15.10% students disagree that they gets distracted by home noise and 22% students says maybe they gets distracted while online classes due to home noise.

Students prefer online learning because they think it will be time saving and money saving

■ Agree ■ Disagree ■ Strongly agree ■ Strongly disagree ■ Neutral

12] THz above pie-chart shows that 45% students agree and 6.7% students strongly agree that they prefer online learning because it saves money and time whereas 26.7% students disagree and 6.7% students strongly disagree that they prefer online lecture because it is time and money saving whereas 15% student's decisions are neutral.

Does students attentiveness becomes less due to non visibility on front of teachers

■ Yes ■ No ■ Maybe ■

13] The above pie-chart shows that 66.7% of respondents agree that student's attentiveness becomes less due to non-visibility on front of teacher, whereas 10% people disagree with the above situation and 23.3% says that they are unsure about their decision.

CONCLUSION AND FINDINGS

The following are some general conclusions based on the research results:-

1. Although students are drawn to online learning for the convince some students may be unaware of the time commitment that is still needed for their studies.

2. Some students may misjudge their ability to balance multiple priorities during online education.

3. A large number students finds it hard to pay, attention due to non-visibility in front of teachers.

4. Students think that they are becoming lazy because of online education as they don't have to travel and gets education at home

SUGGESTION

1. Colleges Advisors should make sure students have manageable loads and are knowledgeable about all pandemic programs.

2. Make sure instructors are not only content experts but have a passion for teaching and are student centric.

3. Organization must provide coaching and additional time management for students with multiple priorities.

4. Offer programs that allow for more flexible self-pacing, this would support students with busy schedule or time related issue.

5. Ensure a higher level of support for student's earlier in programs and identify students who are lacking confidence because of non-visibility in front of instructor.

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EMERGENCE OF VARIOUS E- PAYMENT APPS DURING PANDEMIC

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ABSTRACT
The COVID-19 epidemic has shaken the world. Due to COVID- 19, the world is rapidly moving towards digitalization. E-payment has shown how unreliable and durable they are and they have maintained a high level trust. The purpose of this Paper is to find about money and modern method. E- Payment is used by the people for various reasons. Our aim is to find out what problems people face at the time of transaction and find solution to them. During the pandemic e-payment has started to be used more and more in urban and rural area and we also came to know how many people can use e-payment.

Keywords: COVID-19, E-payment, Digital payment.

INTRODUCTION:
COVID-19 has made it more and more convenient for citizens to use e- payment to avoid physical contact while transacting. The use of e- payment has become more and more prevalent due to the pandemic which has restricted the free movement of people and has affected transaction etc. online payment is one of the most widely used forms of payment in the world, making it easy for two or more people to exchange money any time.

The government of India has benefited from e- payment. Paperless, cashless India plays important role in the digital society and knowledge economy. In future every individual will make transactions using e-payment apps. The world is moving rapidly towards digitalization. Due to the high risk of COVID-19 more and more people are learning how to use the E-payment app.

REVIEW OF LITERATURE
Ivana Bestvina Bukvić has written a research paper in 2021 on adoption of online payment during the COVID-19 pandemic in which she has mentioned all the reasons of increasing online payment due to pandemic, she has also made survey in which some countries are leading because they have started using digital payment apps, while other countries are lagging behind because of minimum use of e-payment.

Ms. Rashi Singhal and Ms.Abhilasha Gupta have written research paper in 2021 on impact of COVID-19 on digital payment services at town and villages. In which she did a survey among the digital payment services at towns and villages .The research is Digital Services or Digital payment applications is a great contributor to the development of India economy GDP as well as standard of society who were not much aware before or was facing trade related issues through using only cash in their routine.

Yuyang Zhao and Fernando Bacao have written a research paper in 2021 on how does the pandemic facilitate mobile payment? Investigations on users prospective under the covid-19 pandemic .This research model provided extensive explanatory power when explaining that users' payment habits had changed due to the influence of pandemic, and that adoption intentions of M-payment were determined by technology perceptions and mental expectations conjointly.

OBJECTIVES:
1. To know the awareness of e-payment among consumers.

2. To know which app do consumers prefer the most for e-payment.

3. To understand the problem faced by the consumers while using e-payment apps.

4. To know that usage of e-payment apps had increases during pandemic.

5. To know for what purpose do consumers use e-payment apps?

6. To know more about usage of E-payment app during pandemic.

RESEARCH METHODOLOGY
The study is empirical is nature. The data is collected from teachers and students of colleges in Thane. The research has used secondary data which includes published articles research paper etc. The researcher has also used questionnaire collected from students and teachers of colleges in Thane as primary data.

HYPOTHESIS
1. There are no increases in usage of various E payments app during pandemic.

2. There was increases used various E payment apps during pandemic.

LIMITATIONS OF STUDY
1. The study is limited among students and teachers of colleges in Thane.

2. The research paper is limited due to limitation of time to collect data.
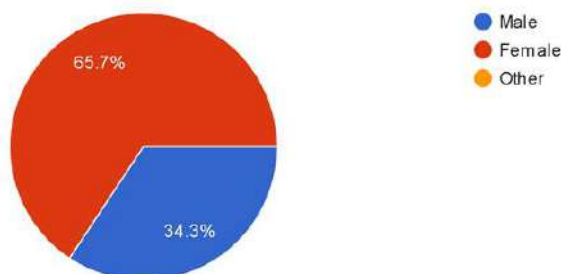
3. Research paper is limited upto 102 respondents.

ANALYSIS AND INTERPRETATION OF DATA:

Age Group
102 responses
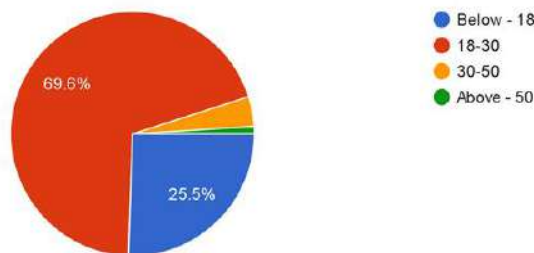
Interpretation: From the above chart it is understood that 69.6% respondents are between 18-30 age group, 25.5% respondents are between below 18 and very few respondents are from 30-50 age group and above 50.

Gender
102 responses

Interpretation: From the above chart it is understood that 65.7% respondents are female and 34.3% respondents are male.
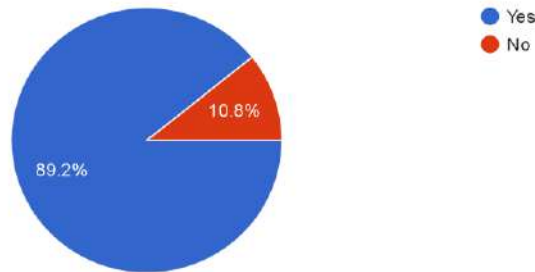
1. Aware about e-payment

Are you aware about e-payment?
102 responses
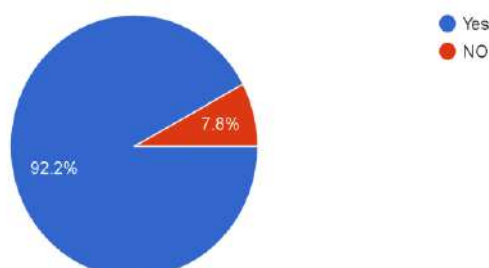
Interpretation: From the above chart it is understood that 92.2% respondents are aware about e-payment 7.8% respondents are not aware about e-payment.
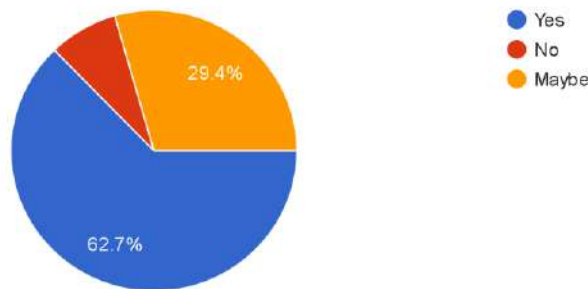
2. Use of e-payment app

Do you know how to use e-payment apps?
102 responses

- ● Yes
- ● No

89.2%
10.8%

Interpretation: From the above chart it is understood that 89.2% respondents know how to use e-payment app and 10.8% respondents don't know how to use this apps.

3. Awareness about e-learning school

Do you think there should be e-learning schools for better awareness of e-payments?
102 responses

- ● Yes
- ● No
- ● Maybe

29.4%
62.7%

Interpretation: From the above chart we can say that 62.7% respondents think that there should be e-learning school for better awareness of e-payment and 29.4% respondents think vice-versa.

4. Use of internet banking

Do you use internet banking?
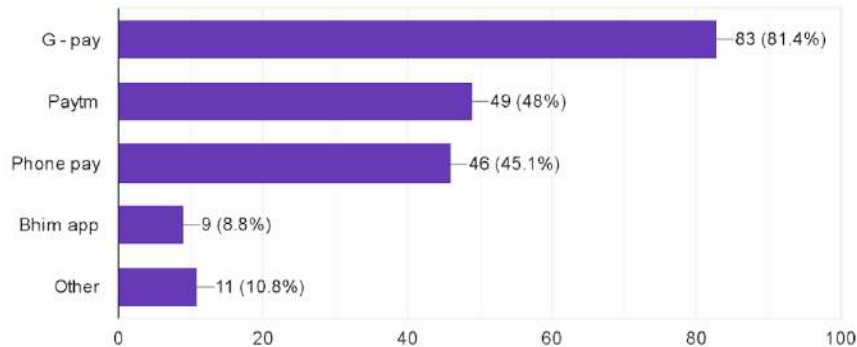102 responses

- ● Yes
- ● NO

21.6%
78.4%
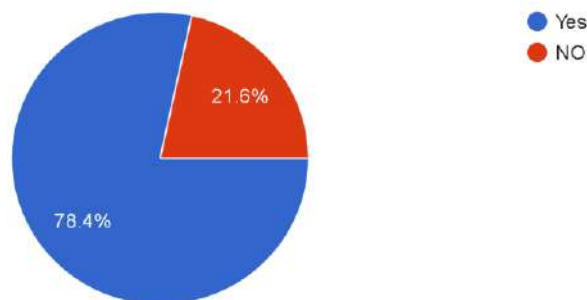
Interpretation: From the above chart we can say that 78.4% respondent's use internet banking and 21.6% respondents don't know how to use internet banking.

5.   Prefernce of e-payment

Which apps do you prefer for online payment?
102 responses

Interpretation : From the above chat we can say that it 1.4% respondents prefer G pay for online payment 48% continents refers payment for online payment 40 5.1% respondents use phone pay 8.8% respondents were for beam act and 10.8% respondents prefer other modes.

6.   Payment Method
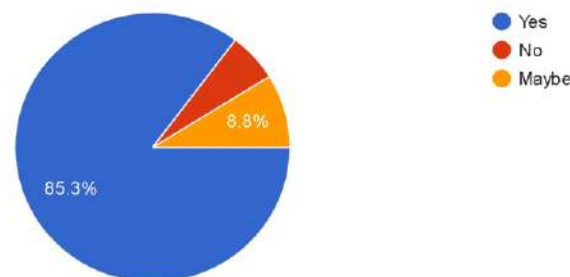

which payment method do you use often ?
102 responses
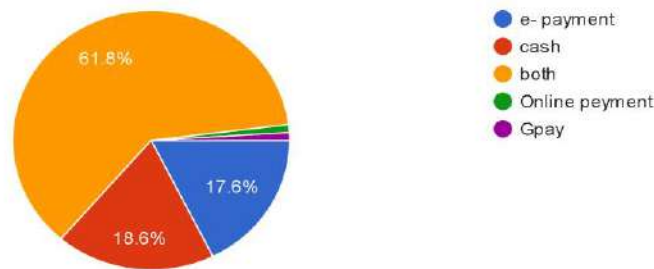
Interpretation: From the about chat we can say that 17.6 % respondents use e-payment for payment mode ,18.6% respondents use cash for payment, 61.8 %respondents use both and last use others.

7.   Habit of online payment of pandemic:

Do you think habit of online payment has increased during lockdown period?
102 responses

Interpretation: From the about shot we understood that 85.3% respondents things that habit of online payment has increased during lockdown period .8.2% respondents thinks no, and 8.8% respondents think maybe.

8. Security of e-payment

Do you think online payment is safe and secure?
102 responses

Legend: ● Agree ● Disagree ● Neutral

42.2%
7.8%
50%
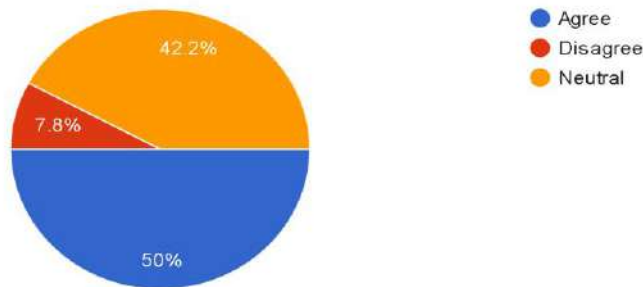
Interpretation: From the above chart we can say that 50% respondents agreed that online payment is safe and secure ,7.8 % respondents are disagree and 42.2% respondents thinks both.

9. Challenges faced while making e-payment

Do you face any challenges while making e-payment?
101 responses

Legend: ● Yes ● No ● sometimes

41.6%
40.6%
17.8%
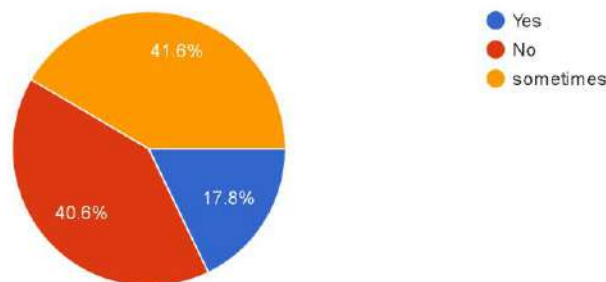
Interpretation: From the about chat we can say that 17.8% respondents face challenges while making E-payment,40.8% respondents doesn't face any challenges and 41.8% respondents think sometimes.

10. What challenges do you face while making e-payment?
Interpretation: Respondents face various issues while using payment apps like technical issue server down payment gets stuck many times also there is risk of hacking user's details.

11. Rewards and cash back while making transaction

Have you got cash back or any voucher reward while using e-payment apps?
101 responses

Legend: ● Yes ● No ● Sometimes

18.8%
29.7%
51.5%
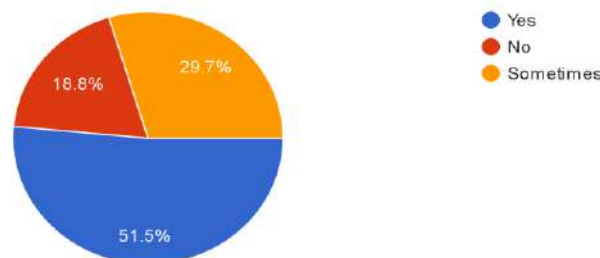
Interpretation: From the about chart we can say that 51.5% respondents say that they got cash don't get and 29.7 % respondents back or any voucher, rewards while using e-payment apps, 18.8 % respondents and say that they dents say that sometimes.

12. App that gives most rewards and cashback

From which app do you get most reward and cash back offers ?
95 responses
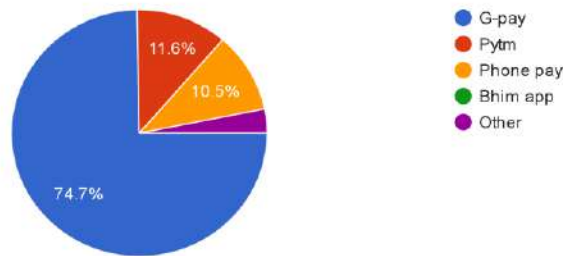
Interpretation: From the above chart, 74.7% respondents thinks G-pay app get most reward and cash back of fees, 11.6% respondents thinks Paytm ,10.5% respondents thinks phone pay and other think Bhim app.

13. Purpose of using e-payment apps

For what purpose do you use e-paymt the most?
99 responses
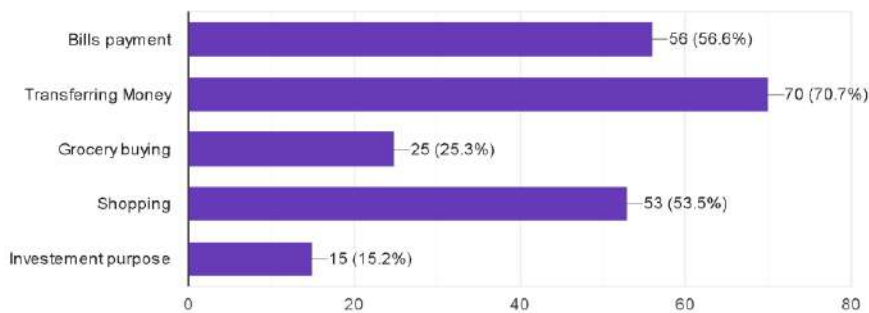
Interpretation: From the above chart, 56% respondents use e-payment for Bill's payment purpose 70.7% respondents use for transferring money, 25.3% respondents use for grocery buying, 53.5% respondents use for shopping and 15.2% respondents use for investment purpose.

FINDING AND CONCLUSION:

1. Most of the respondent's things that the habit of e-payment has increased during pandemic situation.

2. According to the research most respondents are aware of e payment.

3. Majority of respondents prefer both e payment and cash payment.

4. It is concluded that majority of respondents use g-pay app for e- payment

5. Majority of respondent think that they cash back and any vouches reward while using a payment.

6. Majority of respondents use internet banking.

7. Response thing that they get most reward and cashback from g-pay app.

8. Majority of respondents think that they get use e-payment for transferring money and bill payment.

9. Most of the respondents think that the online payment is safe and secure.

SUGGESTIONS:

1. To avoid technical issue.

2. To make sure personal or account details are not hacking.

3. If every app should give rewards cashback or discount to the consumer to increase the use of e-payment app.

4. There should be e-learning school is very rural area to increase the knowledge of uses of e-payment app.

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COVID-19 AND CHANGING DYNAMICS OF E-COMMERCE

Kuwari Maryam Arfi
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ABSTRACT
Technology is the central to any strategy and choosing the right software for surviving and thriving technological Resolutions has occurred for markets and industries. The rise of COVID-19 pandemic crisis forced many businesses to reaccess the decade old traditional business models into online platforms. Consumers have grow accustomed to buying items from the comfort of their own home-a change spurred largely by strict lockdowns and restrictions on movements and this shift in consumers behavior has propelled the E commerce industry .The purpose of this thesis is to investigate how Covid-19 affects e-commerce firms. Covid-19 has been the source of changes in the international business environment across world from the beginning of year 2020. The effects on e-commerce firms are nearly unknown, therefore this research is unique. The aim of this study is to gain more knowledge on how international e-commerce firms are responding to the pandemic.
Keywords: COVID, E-commerce, Pandemic, Digital marketing

INTRODUCTION
COVID-19 a respiratory illness in humans capable of producing severe symptoms and in some cases death it transmits when people breathe in air the risk of transmitting is high when people are in close proximity though to prevent the spread of COVID-19 maintaining social distancing was must. People were forced to be in lockdown hence, the physical shopping was impossible during those days being a turning point COVID-19 has led to a surge in E-commerce and accelerated digital transformation E-commerce is an essential part of many businesses that rely on the sale of physical products or services online. Businesses that had not invested in establishing an online presence were the ones most affected by the pandemic around 16375 businesses had closed due to pandemic as of August 2020 with 60% of these closures being permanent on the other hand businesses that moved online have largely been able to survive or even thrive the power of E-commerce should not be underestimated as it continues to prevent everyday life and present significant opportunity for small, medium, large businesses and online investors. Global E-commerce sales amounted to nearly 3.5 trillion dollars worldwide in 2019, E-commerce was and will be an increasingly lucrative option for businesses.

WHAT IS E-COMMERCE?
Grandon and Pearson (2004), states that some studies were made on the strategic value of e-commerce, where they focus on the management group of 59 American and European e-commerce companies. The study focused on e-commerce firms and their value creation. The result showed that 59 firms representing 80 %, of e-commerce businesses had four factors in Common such as efficiency, complementarity, lock-in, and newness, therefore, online websites are increasing sales and reforming the world of e-commerce (Schafer, Konstan and riedl,1999). E-commerce is used to share business information, managing business networks, And business transactions. Electronic data interchange practice started in Berlin airlift 1993 Where it began as the computer to computer exchange of standardized electronic transaction documents (Zwass, 1996). Electronic commerce has shifted the definition of a company due to its business ability to deliver products, organize, and keep network relationships instead of Manufacturing a product and deliver a service (Wigand, 2006). These sets of technologies and Database management are the major drivers of e-commerce. The development of technology and other forms of communication has contributed to a modification in organizational Structures and business activities by influencing competitive opportunities of companies (Wigand, 2006). The widespread utilization of computers and the internet has created a paper-Free trade for citizens and economic activities through online connections. Information Technology is an important part of an e-commerce firm's performance. Therefore, it increases The capacity to coordinate business transactions from buyers and sellers within the company Or among other companies (Wigand, 2006).

Different types of E-commerce
- Business-to-consumer (B2C): B2C is the most common kind of e-commerce. When shoppers buy something from an online store, they are involved in business-to-consumer
- Business-to-business (B2B): B2B is when businesses sell raw goods or parts through e-commerce to other companies that will then use those materials to create their own products.
- Consumer-to-consumer (C2C): C2C e-commerce is when consumers sell to other consumers. sites like eBay and Craigslist are examples of this kind of e-commerce.

- Consumer-to-business (C2B): C2B e-commerce is when consumers sell their products or services to businesses.

- Business-to-administration (B2A): B2A e-commerce refers to transactions between businesses and public administration, which includes areas such as social security, employment and legal.

- Consumer-to-administration (C2A): C2A e-commerce refers to transactions between consumers and public administration, where consumers pay for services like taxes and legal document preparation.

Advantages of E-commerce

There are many advantages of e-commerce including:

-Wider audience can be reached

-Needed lower operational costs

-Shopping from home is more convenient for the consumer

-Consumers can easily comparison shop across different brands

-Greater selection of goods available

Disadvantages of E-commerce

-Lack of privacy

-Tax issue

-Fear

-Lack of personal touching

-Long delivery period

-Product suitability

-Legal issues

-Product suitability

-Cultural obstacle

-High Labour cost.

-Legal issues.

OBJECTIVE:
To study the concept of e-commerce

To know the practices of e-commerce

To do a comparative study on pre-COVID E-commerce and post COVID E-commerce

METHODOLOGY:
The proposed study is mainly descriptive in nature it is solemnly based on secondary data and information which is collected from concerned resources as for the need of the research. Relevant articles, Newspapers and websites are used in this study.

DATA ANALYSIS
EFFECT OF COVID DISRUPTION ON GLOBAL RETAIL SALES
In the chart below we see distinct upward jog in total global retail sales. From 2019-2020, giving a strong boost to a steady growth in retail e-commerce sales. Worldwide forecast through 2024 shows us an online retail sales as a result of the paradigm shift that COVID disruption has brought
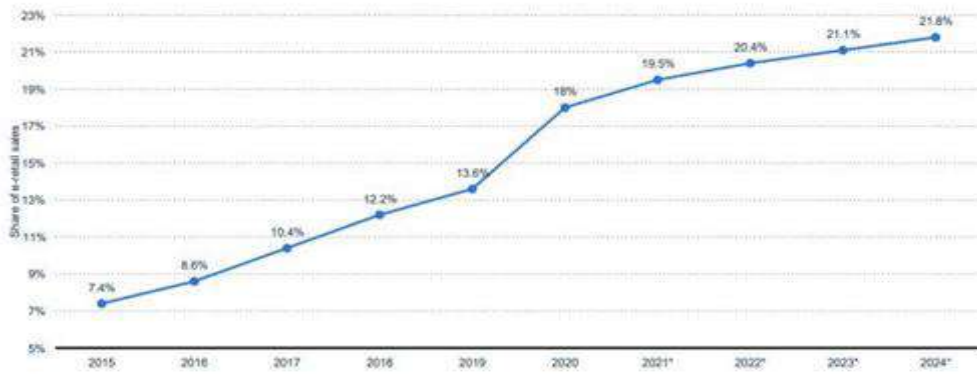
WORLDWIDE E-COMMERCE REVENUE FORECAST:

In the chart below we see a forecast increase of 19% and worldwide e-commerce revenue between pre-and-post COVID-19 timeframes in 2020. Food & Personal Care products show the most growth with a forecast increase of 26% followed by Toys,Hobby & DIY at 21% then comes electronic items and furniture appliances at 19% and 17% least growth according to the forecast was 14% which was of fashion this is a result of consumer transition to online sales.
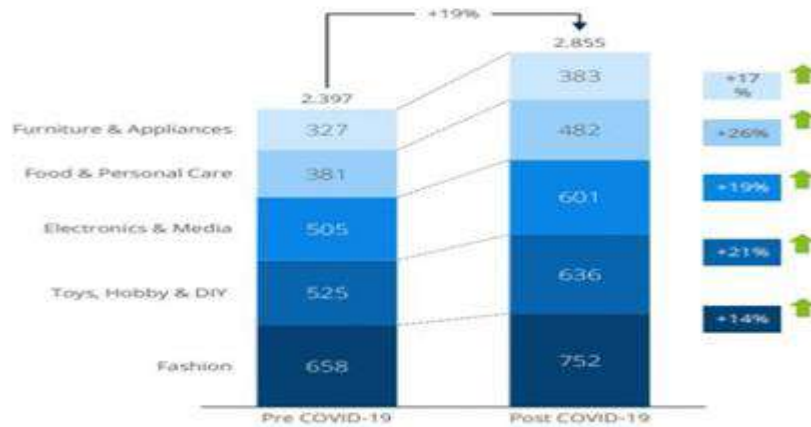
PRE AND POST COVID-19 COMPARISON:

This chart shows us clearly the impact to global ecommerce revenues the pandemic has had, adding an additional 19% sales growth for 2020, and additional 22% sales growth to the existing 9% and 12% regular forecast sales growth rates, respectively.
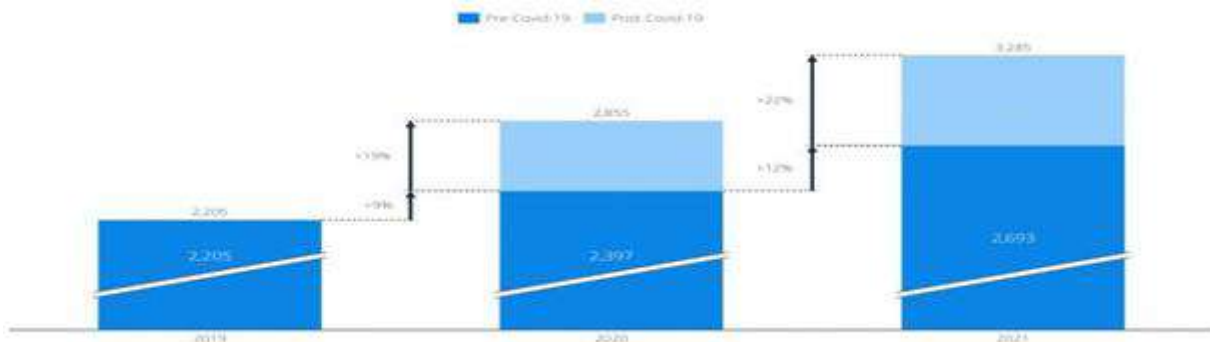
CONCLUSION

Coronavirus has created new challenges for many online businesses. We have observed growing concerns regarding people and companies that are exposed to financial risk. From loss of profit, to loss of employment, the pandemic is influencing all areas of both life and business but still, some companies appear well-positioned to benefit from the shifts in consumer behaviour caused by the outbreak. Perhaps this is simply a time for companies to shift their focus, rather than panic. There are still opportunities available, they just need to be recognized and put to use with the easing of restrictions on the Covid-19 pandemic, forward-thinking retailers will learn from others and embrace digitalization. More frequent disruptions in the supply chain together with

growing customer expectations, and competition in the market leave them with no other choice. "As a small ray of hope for businesses from e-commerce amid the darkness of COVID pandemic fallout."

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ROLE OF BANKS IN DEVELOPMENT OF MUTUAL FUND MARKET

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Bunt Sangha's S.M.Shetty College of Science, Commerce & Management Studies, Opposite to Jalvayuvihar, Hiranandani Garden, Powai, Mumbai-76

ABSTRACT

Banks were there in India since the mid of 18th century since then the banking sector went on revolution. A big change had happened but of course it happened very gradually. After that with the changes in government policies the banking sector kept on evolving. It definitely had an impact on the country, Pre and Post Independence the difference was noticeable very well. Mutual Funds were introduced in India since 1963 and it was monitored by the Reserve Bank of India. Basically this paper focuses on the people's perception on how the banks play a lead role in development of mutual funds market.

Keywords: Banks, mutual funds, development, investments, markets.

INTRODUCTION

These were: The General Bank of India (17861791) Oudh Commercial Bank (18811958) Bank of Bengal in 1809,Bank of Bombay in 1840, Bank of Madras in 1843, Improving the banking sector can be divided in 3 stages: Phase I: The initial phase lasted from 1770 to 1969 Phase II: Nationalization The phase lasted exactly from 1969 to 1991 Phase III: liberalization or reforms in the banking sector Phase which had began since 1991 and continues to thrive until Date.

PERIOD BEFORE INDEPENDENCE

These were: The General Bank of India (17861791) Oudh Commercial Bank (18811958) Bank of Bengal in 1809, Bank of Bombay in 1840, Bank of Madras in 1843. During the British government in India the East Indian companies had established 3 banks:- B.O.Bengal, B.O.Bombay, and B.O.Madras, known as Presidential Banks.

There was a merger of these 3 banks into a single financial institution in 1921, which was renamed as the Imperial Bank of India.

India's first financial institution was the "Bank of Hindustan", founded in 1770 and based in the Indian capital that is Calcutta.

PERIOD AFTER INDEPENDENCE:

The banks were nationalized under the Banking Regulation Act of 1949. While in 1949 the Reserve Bank of India was nationalized.

It had been privately operated, which became a problem because people from the rural areas had to rely on cash creditors for financial aid.

At the time India was granted independence, all of the major banks in the United States.

IMPACT OF NATIONALISATON:

This end in Associate in nursing boom in worth vary and thereby   growing the financial circumstance of the country inflated efficiency. For the betterment of the people the government used financial gain won with the help of victimization Banks.

LIBERALISATION PERIOD:

In order to improve the balance and profitability of the nationalized public zone banks, under the leadership of Shri.M. To use Narasimham the government decided to set up a committee, to oversee the various reforms within the Indian banking sector.

The different measures taken include:-

Setting up of branches of the diverse Foreign Banks in India • No extra nationalization of Banks might be done • The committee introduced that RBI and Government could deal with each public and personal zone banks equally • Any Foreign Bank should begin joint ventures with Indian Banks Payments banks have been brought with the improvement within the subject of banking and technology. The Small Finance banks were then allowed to set up their branches throughout India. A important a part of Indian banking moved online with net banking and apps to be had for fund transfer • Thus, the Indian banking records suggests that with time and the

desires of people, important tendencies were added approximately within the banking zone with an purpose to prosper it.

DEFINITION OF MUTUAL FUNDS:
It is made up of stocks, bonds, and money market instruments, or a combination of the three (Franklin Templeton Investment, 2007) A MF is a group used to accumulate funds for investors and therefore the funds are held in Securities Investment Manager Portfolio (Samsul, 2015) mutual funds are mutual funds raised by a professional investments.

HISTORY OF MUTUAL FUNDS IN INDIA
SBI Mutual Fund became the premier, on June 1 non-UTI was established. Accompanied by media from Canbank Mutual Fund on December 87, PNB Mutual funds Fund on Aug 89, India Bank Mutual Fund on November 89,BOI on June 90, B.O.Baroda Mutual Fund on October mutual funds of LIC was launched on June 1989, while GIC launched its mutual fund on December 1990, giving broader preference to families of funds. In 1963 mutual fund business was started in India with the establishment of the Trust of India Unit as an initiative of the RBI and Government of India. Government of India funds and is now no longer within the scope of mutual fund regulations. The 2nd is the UTI mutual fund that is subsidized through SBI, P.N.B, B.O.B and LIC, is registered in SEBI and has capacities below the mutual fund regulation.

DIFFERENT INVESTMENT ROUTES IN INDIA
The National Pension Plan- NPS is an aggregated retirement plan supported by the Indian Government. Pension Fund for Employees. The EPF is a financial savings plan for retirement, especially for employees. With proper investments a corpus can be built up, that offers you a decent old-age pension after retirement. The hobby fee varies from deposit to deposit and changes from time to time. Usually the authorities review the PPF hobby fee on a quarterly basis.

The rate of the bond fund remains relatively stable over economic cycles. Equalized funds are mutual funds to which they can adapt most flexibly to any economic situation, such as the drastic switch from stocks to bonds or from bonds to stocks. Balanced Funds: - Balanced finances put money into a mixture of equities and constant profits securities –The pension fund is that, investing its assets at least 80% in debt securities. Money Market Fund:- Money market financing invests money in securities with constant short-term income. The intention of those finances is to generate better returns however additionally mitigate threat via constant profits securities. It does not charge any sales and redemption costs for investment units.

PURPOSE OF MUTUAL FUNDS:
Mutual funds of this type usually invest their money in equity funds Mutual Fund with Priority for Constant Income This type of Mutual Fund invests its funds in bonds. This type of mutual fund generally allocates money in the money market, such as time deposits, certificates of deposit, and short-term bonds.

BENEFITS AND DISADVANTAGES OF INVESTING IN MUTUAL FUNDS:
Mutual budget are actively controlled with the aid of using a expert who continuously video display units the fund's portfolio.

Affortability mutual funds can be owned with a minimal amount of money.

Diversification is an investment strategy for investors to invest money in many things, or to distribute money to many companies or sectors.

A mutual fund invests in numerous asset instructions and now no longer only an unmarried inventory or bond.

Even today's youngsters can easily put in some money and own a mutual fund.

Mutual budget permit for funding diversification.

Professionally managed by investment managers so money can be saved and pro-controlled.

In mutual funds that purchase the price, investor, the shares, classic to the Net Asset Value of the Fund, that the fund isn't allowed to be calculated type at any time when the investors provide the order. Return in The mutual background is over the deposit of the deposit.

CHARACTERISTICS OF MUTUAL FUNDS:
a) **Close End**: The Fund, i.e. those are the that are irredeemable by the shares once sold to the investors. Those shares can not be sold to the investment manager by the shareholders. If shareholders wish to sell the shares, they must do so through the exchange, where the shares are registered.

b) **Open End**: These are investment funds that can be offered and redeemed by investors until the issue of the nominal value of the shares. Shareholders of this type can resell their shares/units at any time if they wish. custodian bank, mandatory purchase of shares/net asset value at present ,To transact locally the mutual funds are allowed by both RTA as they have a vibrant network. These touch points (or) Customer Service Centers (CSC), provide a wide range of services, including financial transaction acceptance and processing, non-financial changes, KYC fulfillment formalities, appointment registration you, the transmission of the units as well as the provision of an account statement. , etc

ROLE OF INDUSTRIAL BANKS IN DEVELOPMENT OF MUTUAL FUNDS:

By adopting the cross-promoting techniques, the industrial banks are ready to increase the resource Electronic duplicate to be had at: mobilization towards investment trust at a lower cost. After a quiet starting within the mutual fund business lay dormant until 1987 importantly as a result of it absolutely was monopolized by one cluster i.e. UTI and also the nomenclature 'investment trust' had not extremely gained currency.

MF acts as an intermediaties so that it collects savings of the investors to invest it in large and well wide-ranging portfolio of monetary assets with a read to scale back risks and to maximize the financial gain and capital appreciation for distribution to the investor son a pro-rata basis.

Considering the fact that the family sector has adominant share within the mixture internet savings of the economy, banks in their quest for mobilizing the community savings into productive avenues have found in mutual funds a profitable opportunity.

REVIEW OF LITERATURE:

1) **Martin P. and McCann B. (1998)** in their book titled "The Investor's Guide to Fidelity Funds – Winning Strategies for Mutual Fund Investing" have very nicely guided investors regarding issues related with mutual fund investing. They have advised that Investors should focus on sectors of the global economy that have the greatest potential for profit in order to beat the market averages. By combining this approach with the safety provided by mutual funds' inherent diversification, mutual funds become an investment vehicle with all the advantages of trading individual securities and none of the disadvantages. Like any other investment, it is essential to develop a strategy for selecting which funds to buy and sell – and when. These decisions should not be left to the emotions or to chance.

2) **Gremillion L (2005)** in his book "Mutual Fund Industry Handbook – A Compehensive Guide for Investment Professionals" has given detailed information about working of mutual fund industry. It has also mentioned the different type of challenges faced by various professionals connected with this industry. The book has provided a broad and comprehensive sweep of information and knowledge, which will help everybody who has serious interest in the industry.

3) **Tyson E (2007)** in his book "Mutual Funds for DUMMIES" (5th edition) has provided practical and profitable techniques of mutual fund investing that investors can put to work now and for many years to come. By proper selection investor can identify good schemes, where fund managers invest in securities as per that match investors' financial goals. Investors can spend their time doing the activities in life that they enjoy and are best at. Mutual Funds should improve investors' investment returns as well as their social life. The book helps investors how to avoid mutual fund investing pitfalls and maximizing their chances for success. Whenever any investor wants to buy or sell a mutual fund, the decision needs to fit his overall financial objectives and individual situation.

SCOPE OF MY STUDY:

1. The look at covers the length from the start of the records of banks in India

2. Later it offers with liberalization, consequences of nationalization, In addition the look at with the records of mutual price range in India.

3. The advantages and boundaries are mentioned in detail

4. There are numerous funding possibilities in India which can be covered on this

5. Mutual price range are specially break up in ways

6. There are numerous uncommon places and varieties of mutual price range

7. Some of the objectives

8. Also talks approximately the function of banks in growing mutual price range in India.

OBJECTIVES:

1.   To study how many people are aware about Mutual Funds

2.   To study how many people invest in Mutual Funds

3.   To study what all avenues are available in India

4.   To study the effect of COVID 19 on investments

5.   To study the role of banks in development of Mutual Funds

RESEARCH AND METHODOLOGY:

Universe	India
Method of Data Collection	Primary and Secondary
Method of Primary Data Collection	Questionnaire (Google Form) (Close and Open ended)
No. of Sample Respondents	96
Method of Data Analysis	Pie Chart and Bar Graph

**ANALYSIS AND DATA INTERPRETATION:**

**Table 1: Division of Respondent's Gender, Age Group & Occupation**

Occupation	MALE	FEMALE	TOTAL
Salaried	25	14	39
Student	13	06	19
Entrepreneur	21	02	23
Consultant	03	00	03
Retiered	03	01	04
Homemaker	0	03	3
Others	04	01	05
Total	69	27	96

(Source: By Primary Data)

This table shows the data that was derived from the questionnaire consisting of 15 questions were randomly sent to Mumbai citizens. From which responses from male are more as compared to that as females .
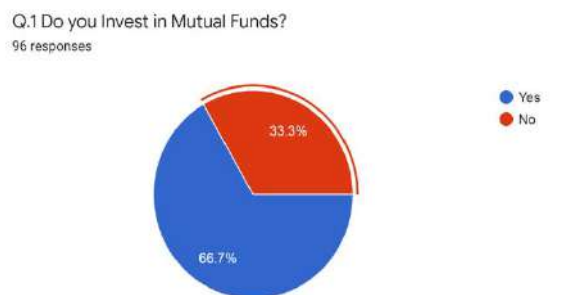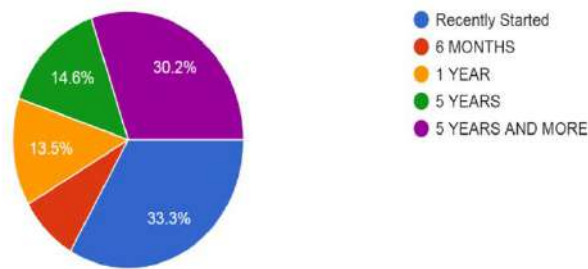

In the pie chart it is clearly visible that out of all the respondents 66.7% people do invest in mutual fund whereas there are still few people who are not into mutual funds yet.
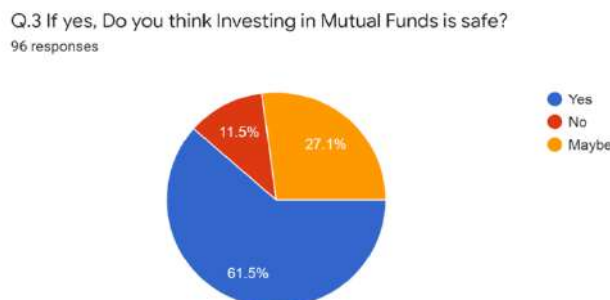
Out of 96 respondents 61.5% people find it to be safe, 11.5% people find it not to be safe and rest of them that is 27.1% and not sure about it.

Q.4 How long are you investing in Mutual Funds?
96 responses

The pie chart tells us about the people's investing period as in from how long are they investing in mutual funds.

So out of 96 respondents 33.3% of respondents have recently started investing, 8.4% respondents have started from last 6 months, 13.5% respondents have started investing from past 1 year, 14.6% people have been investing from 5 years and 30.2% people have being investing from even 5 years and above.

Q.7 What is a good time to invest in Mutual Funds?
96 responses
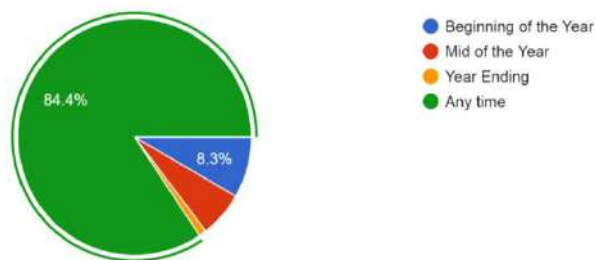
In this pie chart we could clearly identify that out of 96 respondents people have different opinions what is a good time to invest in mutual funds.

8.3% respondents people this it's in the beginning of the year, mid of the year is suggested by 6.2% respondents and only 1% respondents believe year ending is a good time to invest in mutual funds but whereas 84.4% people think that for investing in mutual funds there is no specific time or period as such investments can be done at any time in the year.

Q.8 Do you think banks play a very important role in development of Mutual Fund Market?
96 responses
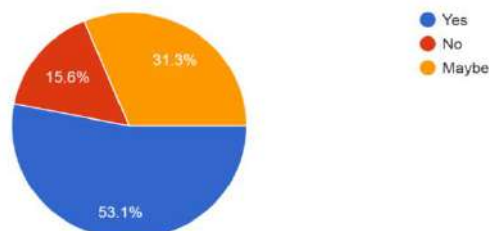
In the pie chart it is clearly visible that 53.1% people feel that banks play a very important role in development of mutual fund market and 15.6% people feel the opposite that is the banks do not play a very important role in development of mutual funds whereas 31.3% people are not sure about it.

DATA ANALYSIS:-
The study is based on both, Primary and Secondary data.

SUGGESTIONS:-

The researcher believes that investing in mutual funds is safe only if the investor is aware about the market conditions or is able to analyze the market statistics. Without having complete knowledge it is never recommended to risk your investments. However every investment consists of risk. Only thing we need to analyze is out of so many investments options available in the market , which investment consists of low risk and higher returns.

For this banks have their own MF portfolios wherein they guide us how and when and where to invest.

CONCLUSION

The researcher believes that banks do play a very important role in development of mutual funds market as the banks need not go anywhere else to find customers. They can target they own customers and they can use their unutilized savings to channelize it in mutual fund market. This will help the customers of the banks to grow their investments by channelizing it in various types of mutual funds. As there are many more options in the market available for the investors to select one or more and make investments as per their choice.

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EMERGENCE OF OTT PLATFORM OVER TRADITIONAL TELEVISION PLATFORM DURING PANDEMIC

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[3]Satish Pradhan Dnyanasadhana College , Thane

ABSTRACT

People were forced to stay at home during the global pandemic due to social distancing, and their only source of entertainment was the OTT platform. There are over 40 online streaming services to choose from. OTT platforms include Netflix, Disney+ Hotstar, Amazon Prime Video, Voot, MX Player, and others. Smartphones, laptops, tablets, computers, and other devices can all be used to stream online content.

The advancement of technology has resulted in a decrease in television subscriptions. Even if they are more expensive, people will still prefer OTT to television or theatre because of its versatility.

Unlike theatre tickets or television subscriptions, which allow you to watch only one channel, OTT platforms require only one subscription and allow users to watch movies, TV shows, and web series in multiple languages and, in some cases, access to good content is made easier by using an online stream. The rise in demand for online and diverse content has resulted in a decrease in demand for television and theatre.

Keywords: OTT Platforms, COVID-19 pandemic, Netflix, consumers

1. INTRODUCTION:

OTT is an abbreviation for "over the top." In layman's terms, OTT refers to the distribution of online content over the Internet. OTT platforms, rather than traditional television or theatre, such as cable and DTH, have taken over the world during the pandemic. Since the impact of the COVID-19 Pandemic or lockdown, online streaming has increased. As movie theatres closed, many people turned to OTT platforms for entertainment.

BIGflix, the first independent Indian OTT platform, was launched by Reliance Entertainment in 2008.Then, in 2010, nexGTV became the first OTT app to livestream soccer matches on smartphones. In India, another OTT platform that played a significant role in its rise was Hotstar (Disney + Hotstar).The year 2020 marked the rise of OTT platform viewership. In India, there are now more than 40 OTT service providers. Hotstar is the most popular OTT platform for video streaming services. Hotstar has over 300 million active subscribers, and the other OTT platforms are Netflix, Amazon Prime, and Zee5.

284 million people accessed video content via data bundles. According to Price Waterhouse Coopers' global entertainment and media outlook, the OTT market will grow at a 21.8 percent CAGR from ₹ 4464 crores in 2018 to ₹11976 crores in 2023.

During this time, low-budget films were seen on smaller screens, increasing their direct to digital releases and making them more accessible to OTT platforms.

According to the report, India will be the tenth largest OTT market in terms of revenue in 2022. Disney+ Hotstar has 43 million subscribers which makes it the most widespread OTT platform in India, followed by Amazon Prime with 17 million subscribers, and Netflix with 5 million subscribers.

2. REVIEW OF LITERATURE:

Prof. Richard Patna K (2021), she has written a research paper on "the rise of OTT platforms: the impact of the c.19 Pandemic." This study demonstrated the enormous potential for growth of OTT platforms in the future. Because OTT platforms cater to all age groups, this particular TG was chosen for the study. Aside from that, consumers in this age group were able to provide valuable feedback on the OTT platforms. The researcher found out that 73.6 percent of people experienced an increase in their daily usage of OTT. It is also stated that OTT platforms have experienced significant inorganic growth by capturing market share from other platforms.

DR. S. GOMATHI AND DR. N.VIJAITHA CHRISTY (8 August 2021) published a research paper titled "Viewers Perception of OTT Platform During Pandemic." The most preferred app in their study was Netflix, and the reason for preferring app was live streaming; the mean score was 5.02. This point of view expects content to be available immediately and on demand. According to the study, the growth of OTT in India will increase as a result of this factor. It emphasises the scope and extent of their consumption among the general public. Since people have begun to consume OTT more and more during the lockdown, the research has determined that it is the appropriate time to investigate 'viewers perception towards OTT platform during

pandemic'. The study also revealed about not every OTT platform is not having the financial inability to produce more video content for new generation specially for OTT platform.

DR. S. ANBUMALAR (volume 12, issue 4,2021) wrote a research paper on "OTT platform adoption in India during Covid-19." This study focused on key trends in OTT adoption as a result of Covid-19 in India, as well as a comparative audience preference for OTT AND TV and customer future perspectives. OTT streaming platforms attracted a flood of new viewers during the pandemic period, and net viewership remained significantly higher than in the months preceding the pandemic. OTT platforms added 3-4 million new viewers during the lockdown.

NAVSANGEET SAINI discusses the use of OTT platforms during the Covid-19 lockdown: trends, rationale, and implications (2020). According to the study, the use of OTT content platforms has increased, particularly among younger age cohorts of the population. As per the report, the key reason for OTT appeal was the availability of cross-cultural material, a subscription to unlimited content, documentaries/d series format, and so on.

There is a discernible increase in the popularity of OTT as a preferred medium, a habit reinforced by the previously unheard of lockdown due to the highly contagious COVID-19 pandemic

Dr.Sabyasachi Dasgupta and Dr. Priya Grover's study titled 'UNDERSTANDING ADOPTION FACTORS OF OVER-THE-TOP VIDEO SERVICES AMONGMILLENNIAL CONSUMERS' also confirms that Indian audiences have shifted toward OTT content and are willing to spend for easy and unlimited access to content without a place and time limitation. It once again emphasises the inverse relationship between OTT's pricing strategy and its popularity. Data consumption is another factor that makes it a difficult choice for Indian viewers, as are habits and preferences.

From review of literature we got to know about overall perceptive of other researcher on OTT platform during Covid-19 . Here we have analysis or concluded the other researchers findings.

3. OBJECTIVES OF THE STUDY :
1. To understand and analyse the preference on OTT platform or theatre in pandemic.

2. To find out the facts of OTT

3. To understand or find increase in consumption of OTT platforms during pandemic.

4. RESEARCH METHODOLOGY :
Data collection refers to collection of data through research paper.

Primary data – it provides accurate data as it is collected first hand. This study conducted an online survey or questionnaire made up of 11 questions . This questionnaire was circulated amongst families, friends and relatives .
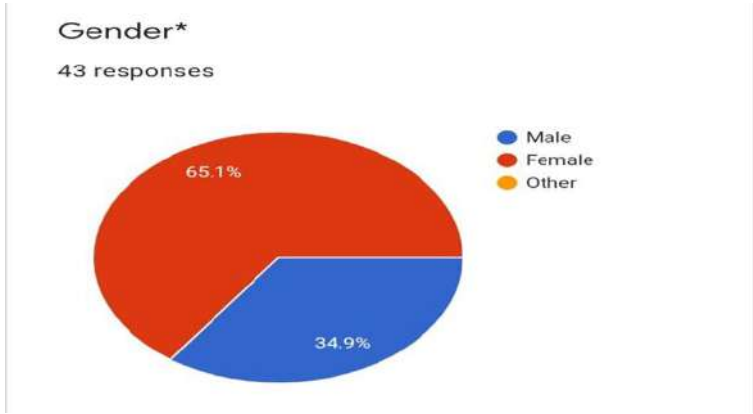
5. DATA ANALYSIS /DATA INTERPRETATION:
1. Age group
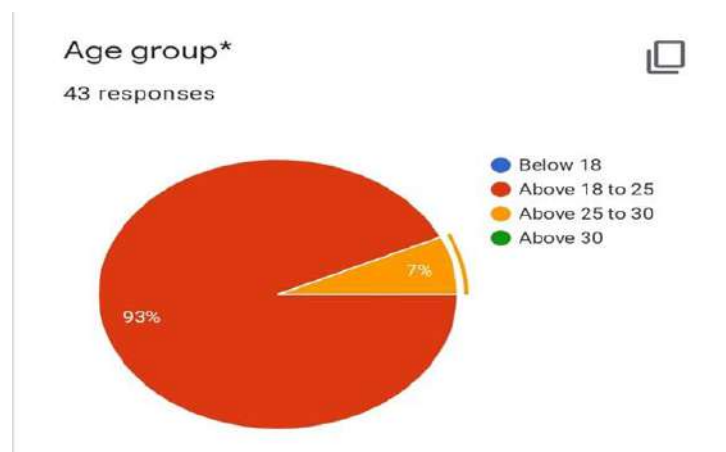
This pie chart of age groups for the OTT platform is shown above. According to the responses, 93 % of respondents were between the ages of 18 and 25, and 7 %were between the ages of 25 and 30. As a result, OTT platforms are more popular or appealing to teenagers or youngsters.
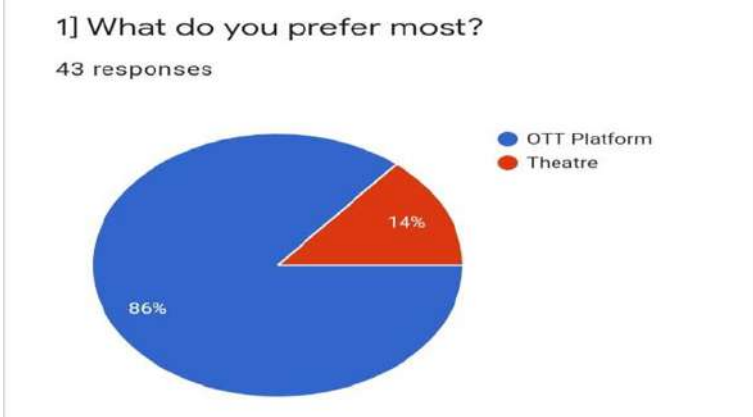
2. Gender of respondents

According to the pie chart above, the gender of respondents for OTT platforms is more popular among females than males. Female responses were 65.1 %, while male responses were 34.9 %.
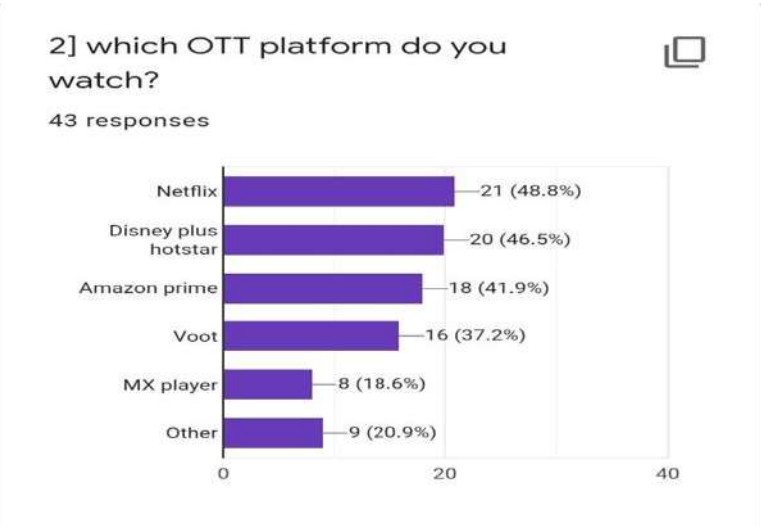
Females are more likely to use OTT platforms.

3. What do you prefer most OTT or theatre

During the pandemic, the majority of respondents chose OTT platforms over theatre, as shown in the pie chart. OTT platforms received 86 % of the responses, with theatre receiving the remaining 14 %.

4. OTT PLATFORMS

As shown in the chart for OTT platform preferences such as Netflix, Hotstar, and so on.

Netflix was the most popular OTT platform. Netflix received 21 responses, accounting for 48.8 % of the total, with Disney + Hotstar coming in second. It received 20 responses, or 46.5 %. Amazon Prime received 41.9 %, while Voot and MX Player received 37.2 % and 18.6 %, respectively.

The remaining 9 respondents (out of 43 total) chose other option. i.e 20.9%.

5. Consumer preference for OTT
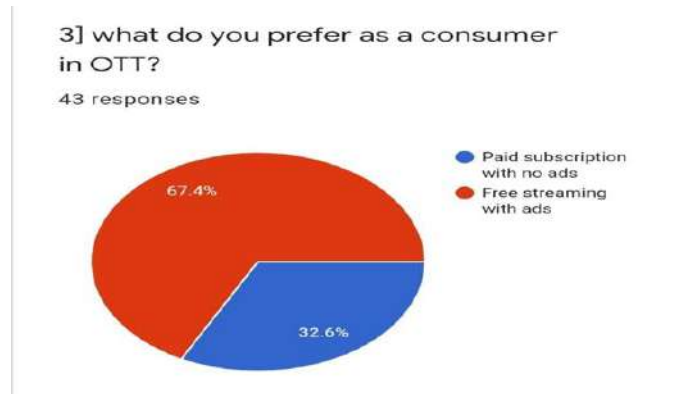
According to the pie chart, there were two options: a paid subscription with no ads and a free streaming platform with ads. According to the responses, 67.4 % favoured free streaming with no ads, while 32.6 % tend to prefer paid subscriptions with no ads. Because the majority of the responses came from young people, they personally prefer free streaming with ads.

6. Factors attract you for using online streaming services
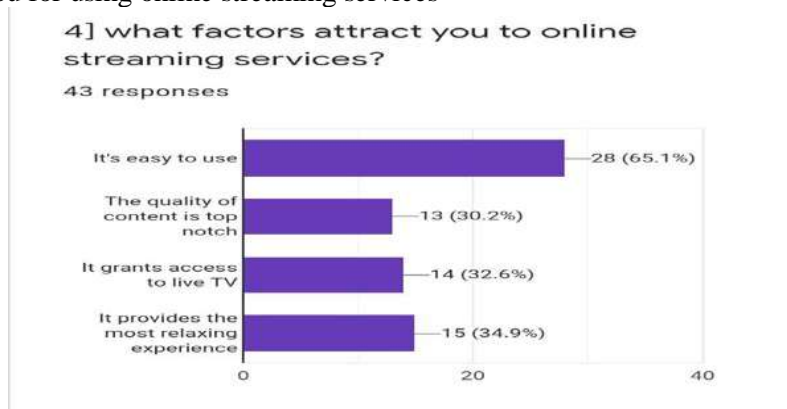
According to the graph above, the factors or reasons that attract you for using online streaming services are different for each of the 28 respondents. In other words, 65.1 % of consumers chose it because it was simple to use.
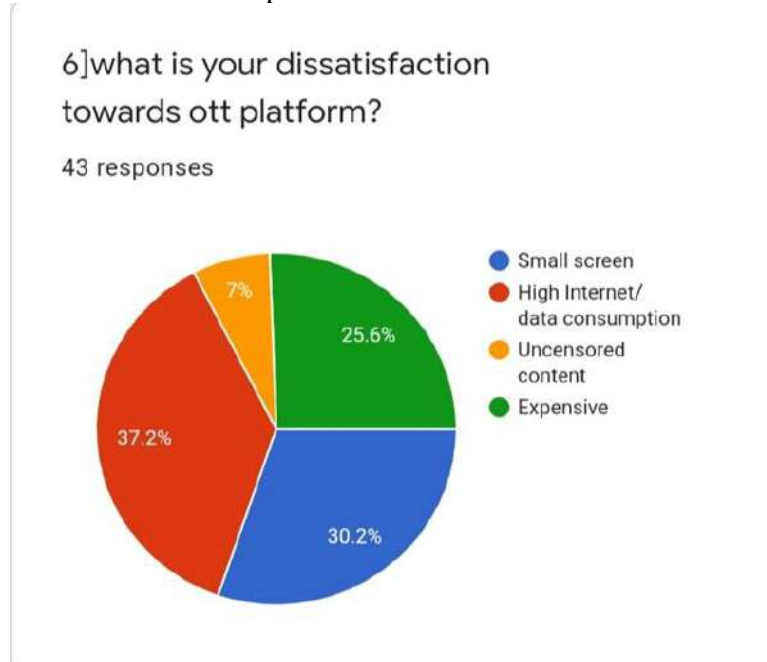
Another option was quality content, which received 13 responses and was chosen by 30.2 % of those polled. Other factors included access to live TV and providing the most relaxing experience, with 32.6 % responding and others close to 34.9 %.

7. What do you watch on OTT platform?
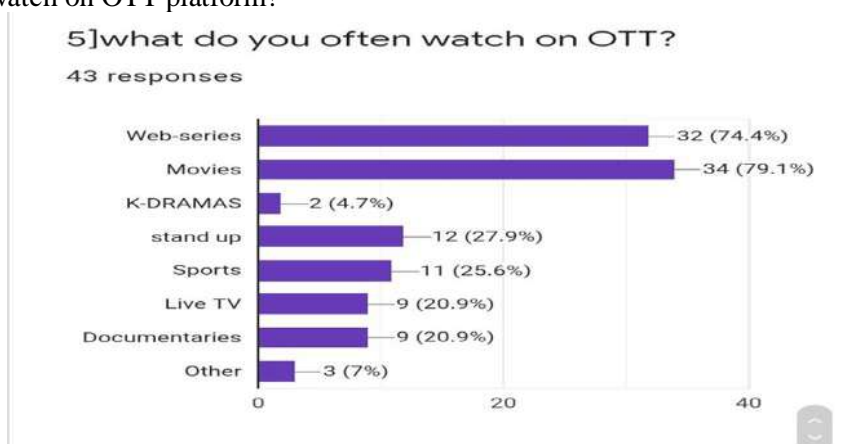
According to the graph, there were options such as web series, movies, stand-up, sports, documentaries, and so on. As per the graph, people frequently use OTT platforms to watch movies. It received 79.1 %. While other people who are interested in movies watch Web series, it received 74.4 %. Stand-up and sports received 27.9 % and 25.6 %, respectively, while other shows such as Iive TV and documentaries received the same response of 20.9 %, with the remaining two kdrama and other receiving 4.7 % and 7 %.

8.   What is your dissatisfaction towards OTT platform?

6]what is your dissatisfaction towards ott platform?

43 responses

- Small screen
- High Internet/data consumption
- Uncensored content
- Expensive

According to the pie chart, consumers are dissatisfied with the OTT platform. 1. Small screen received 30.2 %. 2. High Internet/DATA consumption increased by 37.2 %. 3. Uncensored content received only 7% of the vote. 4. Expensive received 25.6 %. According to it, the cause of consumer dissatisfaction was excessive Internet usage or data consumption.

9.   what would you prefer after post pandemic OTT or theatre ?

7]what would be your preference in post Pandemic?

43 responses

- Will continue to subscribe on OTT
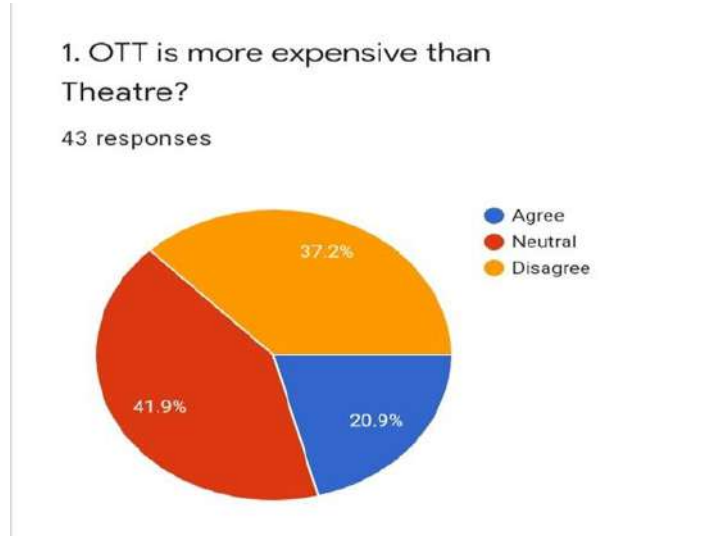- Will watch movies in Theatre
- Both
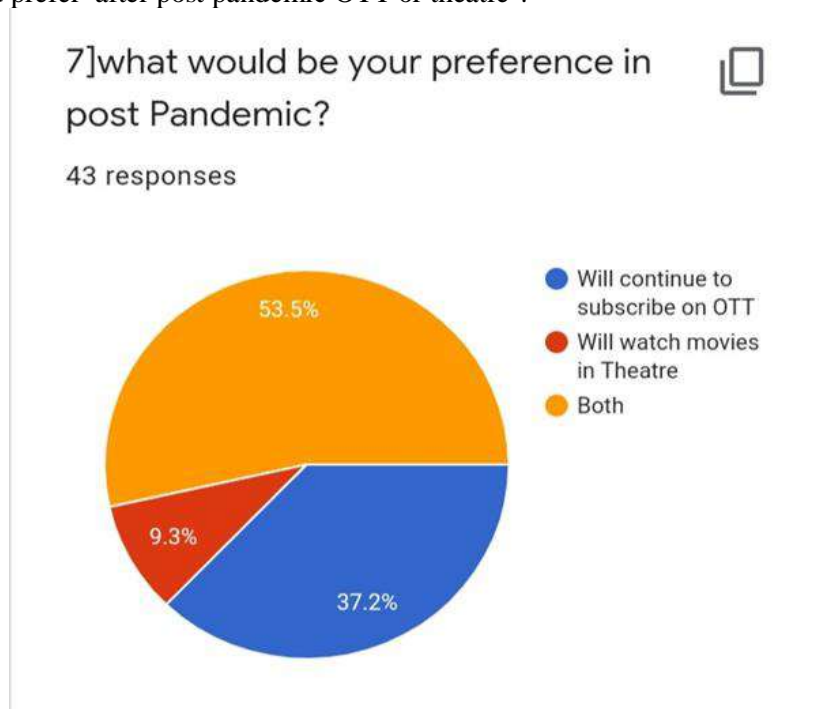
There were three choices:

1. Will keep subscribing to OTT

2. I'm going to see a movie in a theatre.

3. They are both

According to the pie chart, 53.5 % chose both. Other people will continue to subscribe to OTT (37.2%), while the remaining people will watch movies in theatres (9.3%).

10.is OTT more expensive than Theatres

According to the pie chart, the majority of people believe that the cost or price of OTT and theatre is nearly the same. As a result, the neutral option received 41.9 % of votes. While more people disagree that OTT is less expensive than theatres, it received 37.2 % of the vote. Few people agree that OTT is costly (20.9 %).

11. Why consumers prefer OTT?
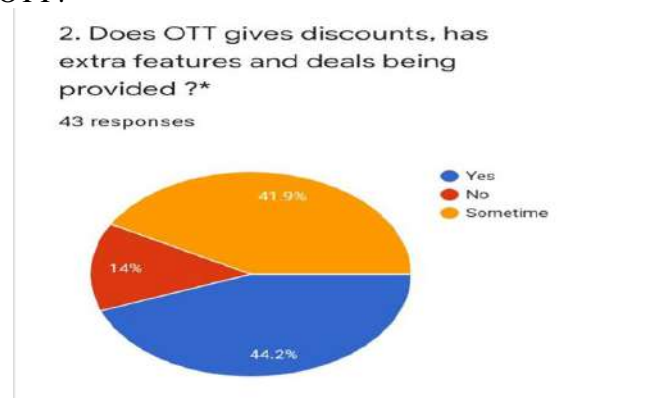
According to the pie chart above, do consumers believe that OTT offers extra features, discounts, and deals?

Yes, no, and sometimes were the options provided. Consumers are positive about OTT because of the features, which received 44.2 %, and consumers are negative about OTT because of the features, which received 14 %.There was another option called occasionally, and it received 41.9 %.

6. CONCLUSION:

Before the Covid-19 Pandemic, there were many changes in digitalisation. As a result of the Covid-19 Pandemic or even a lockdown, our entire entertainment life has changed. So, according to this study, the majority of people using OTT platforms were between the ages of 18 and 25, with 93 %, and the majority of female OTT viewers received 65.1 %. According to reports, most people prefer OTT platforms to theatres.

This research examines what people watch on OTT, consumer subscription preferences, factors or features of online streaming, dissatisfaction with OTT platform, preference after pandemic, and is OTT expensive?

According to Internet, 85 per cent of Indian subscribers will be internet-ready by the end of 2023. The report further stated that the industry is at a scaling stage currently and has the potential to become a $13-15 billion industry by 2030.

India will experience a tremendous increase in OTT consumers by 2023. Currently, there are 350 million users, but it is projected to reach up to 500 million users. The global over the top(OTT) market is growing at a CAGR of 13.87% over the next 5 years.

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ROLE OF AUTOMATED TELLER MACHINE (ATM) ON CUSTOMER SATISFACTION AND RETENTION

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ABSTRACT

It is not always convenient to visit a bank branch and wait in long lines to perform such quick and easy transactions, whether you want to withdraw cash, deposit cash, or make any important fund transfers. This is where an ATM, or Automated Teller Machine, comes in handy. You're probably already familiar with the term ATM, as it's become almost a necessity for carrying out day-to-day transactions in a simple and convenient manner. For such small transactions, you don't need to go to the bank or wait in line to speak with a teller. This saves you a lot of time and can also come in handy in an emergency or when you're in a pinch. Despite the fact that we use ATM on a daily basis, how much do we really know about the service? There's a lot more to these three simple words, and to help you understand them, we'll go over the specifics of Automated Teller Machines, or ATMs, and how they proved to be a game-changer for the banking industry.

Keywords: Automated Teller Machine (ATM), customer satisfaction.

INTRODUCTION

A cash machine, also defined as an automated teller machine (ATM), is an electronic telecommunications system that enables bank customers to perform financial transactions such as withdrawing cash, deposits, banking transactions, balance enquiry, and bank details questions at whichever period or without having contact directly with bankers. Savings and current account holders at some institutions are given free ATM cards. ATMs are commonly referred to as ANY TIME MONEY since they are open 24 hours a day, including weekends and holidays. They can be found in large places such as shopping centers, restaurants, hospitals, and gas stations, in addition to various local banks.

What is the importance of Automated Teller Machines or ATMs?

The first Automated Teller Machine (ATM) was founded in 1967 in London, United Kingdom, and proved to be a defining moment in the banking industry's history. Customers no need to longer have to wait in large lines at banks or travel long distances to make simple cash withdrawals. Thanks to the invention of the ATM, customers could now manage money transfers on their own with the help of an ATM machine, which was far simpler than visiting the bank periodically. More than three decades after the first ATM was placed, these machines can be seen nearly in every country and on nearly every single street corner, making them highly useful and available. ATMs may be is in almost every colony and neighbourhood of both large and small cities in India. An ATM also enables for inter-bank transactions, which is a considerable benefit. This means that you can use the ATM even if you don't even have an account in the bank that handles it for basic services like cash withdrawals. Because you don't have to go looking for your bank's ATM every time you need cash, this saves you time and helps you out in an emergency. ATMs, or Automated Teller Machines, are a terrific service that has made our financial lives a lot easier and more convenient. As a result, it is among the most widely used and well-known financial services.

TYPES OF ATMs

1. On-site ATM - ATM within the bank's premises, there are machines.

2. Off-site ATM - An off-site ATM is one that operates outside of a bank's physical location.

3. Worksite ATMs - Worksite ATMs are those ATMs which are located within a company's premises and are usually only available to that company's employees.

4. Cash Dispenser - An ATM that only allows you to withdraw cash, check your balance, and get a mini statement.

5. Mobile ATM - A mobile ATM is one that travels to different locations to serve customers. The number of mobile ATMs has expanded due to the impact of COVID

6. White Label ATM - A white label ATM is a non-banking financial company's automated teller machine.

7. Green Label ATM - ATMs with a green label are available for agricultural transactions.

8. Orange Label ATM - Orange Label ATMs are devices which could be used to conduct stock purchases.

9. Yellow Label ATM - A yellow label ATM is one that is available for online purchases.

10. Pink Label ATM - These are ATMs that are specifically designed for women.

11. Brown Label ATM - A brown label ATM is one in which the service provider owns both the hardware and the lease on the ATM machine. On the other side, the sponsor bank is responsible for cash management and banking network connectivity.

12. Biometric ATM - Biometric ATMs are those that get access to a customer's account information using security measures such as a fingerprint scanner and an eye scanner.

Advantages of ATM

1. At any moment, from any location, you can get hard cash. – The most significant benefit of ATM is that they offer instant access to cash. Earlier to 1967, there was only one means to collect cash, in terms of having a small period of time to do so: by travelling to the nearest bank. This meant that if you lived in a rural region, you would have to go all the way to the closest village. People were only able to withdraw money until 3 p.m. Anyone can use an ATM machine to withdraw cash at any moment during the day or night, and you can make use of two ATM machines at the same time.

2. Financial Inclusion is offered by ATM Machines – ATM machines can be used to provide financial services in low-income areas where few people use banks. Multifunctional Automated Teller Machines (ATMs) that can transfer money and accept deposits to help people in rural areas gain financial literacy and make formal financial services available. Two-thirds of the world's population uses hard currency. The bulk of people live in developing nations and do not have access to banking services. As a result, the impact of ATM machines in digital finance should not be overlooked. ATM machines, as a result, have the benefit of carrying out banking inclusion.

3. ATMs offer a variety of services. – ATMs now provide a variety of services, including cardless transactions, cash deposits, balance inquiries, person-to-person payments, and check cashing. Cardless transactions were introduced at Wells Fargo, Bank of America, and JP Morgan Chase ATMs as well. ATM machines in some countries sell airline and movie tickets. ATM machines have the distinct advantage of being capable of providing a range of services.

4. Maintaining ATM machines is less expensive – ATM machines are less expensive to build and maintain than physical locations. An ATM can provide the majority of the services that a bank teller can provide. This reduces the workload of a bank teller while also lowering labour costs. Another feature of ATM machine is that they are less expensive to keep in good working order.

5. In times of crisis, ATM machines play an important role – In times of crisis, ATM machines are essential. When companies were closed due to natural disasters, health crises, or economic downturns, ATM machines have the benefit of continuing to operate. Historically, role of physical currency has risen during times of crisis. This is due to the fact that having control of one's wealth gives one a sense of security. The fact that Automated Teller Machines can be relied on in an emergency explains how important they are in both uncertain and routine times.

Disadvantages of ATM

1. Criminals, robbers, and hackers may target ATM machines – ATMs have the problem of being weak in both visually and technologically. As a result, criminals find them to be an easy target. Ransomware has the capability to cheat people of their money. Automated Teller Machines can be installed with scanning devices and small cameras. In order to have availability to cash, criminals can physically harm/destroy an ATM. Using ATM machines puts people at risk of being robbed, especially in rural areas. ATM machines have a significant disadvantage in this regard.

2. ATM Machines Have the Potential to Fail – An Automated Teller Machine, like any other machine, will eventually fail, though this is uncommon. Some machines may refuse to accept credit cards or run out of cash. Other times, the ATM system is unavailable. Furthermore, the quantity of money that can be taken out of an ATM is restricted, which can be inconvenient if you require additional funds. Another problem of ATM Machines is their tendency towards malfunctions.

3. ATM Machines Are Expensive for Users – Financial institutions may find it cost effective to install ATM machines, but users may not. ATM machines bring in a great amount of money for banks and machine

owners in the form of fees that users pay to use them. ATM machines have a significant disadvantage in terms of transaction costs.

4. Personal service is lacking – A disadvantage of ATM is that they lack of personal service. There are no bank employees to assist you or answer your questions.

5. Obsolescence – Another drawback of ATM is that they may be obsolete in the future. Due to the widespread use of ATM cards, mobile money, and internet banking, ATM machines may become outdated over time. The use of hard cash is gradually rapidly declining as transactions become more digital. In addition, the much more likely explanation is that people use ATM machines is to withdraw cash, which can now be done at any point of sale. Like an ATM, any point of sale (POS) vendor with sufficient funds can dispense cash quickly and conveniently. As a result, ATM usage may decrease in the near future.

ATMs Fraud

ATMs have become as common place such as the phone booths made famous by Superman in the last two decades. People use these virtual cash dispensers without thinking because of their widespread availability. They never consider the possibility of something going wrong. Unfortunately, things at the ATM are not the way as they appear. The majority of ATM scams involve criminals stealing card numbers and personal identification numbers (PINs) from innocent ATM users. There are several variations of this confidence scheme, but they all rely on the cardholders' unwitting cooperation. Being aware of these schemes will be the first step toward avoiding them. Theft of your debit card number or personal identification number is a common ATM scam. The use of a counterfeit device to obtain access to the ATM door and a false façade on the front of the machine are two common scams used by thieves. Using cracking programmes, some criminals can steal data from free-standing ATMs. Other ATM scams include stealing the entire machine or installing a lookalike deposit recipient at the ATM and posting an "out of order" sign on the machine.

What is ATM Card?

An ATM provides financial services or specialised payment card issued by a financial institution that is the bank that allow customer to obtain their financial accounts through ATM machines and make official point-of-purchase selling process such as gas stations, grocery stores, hardware stores, department stores, and so on. Credit and debit cards are not the same as ATM cards. ATM cards are plastic payment cards with a smart card with a chip that carry a unique card number as well as sensitive information such an expiration date or CVVC (CVV). The types of ATM cards are:

- Debit Card – A debit card is also called a bank card, plastic card, or check card it's a type of a card that can make use to do purchases instead of hard cash. It has similar functions like the credit card, but unlike a credit card, the funds for the purchase must be in the cardholder's bank account at the moment of purchase and are transferred directly from that account to the merchant's account to complete the transaction. Some debit cards (prepaid cards) have a stored value which can be used to make a payment, but the majority of debit cards send a message to the cardholder's bank to withdraw funds from the cardholder's designated bank account.

- Credit Card – A credit card is a card that is issued to customers that is the cardholders to allow them to pay a dealer for products based on their existing debt i.e., promise to the card issuer to pay them for the amounts plus the other agreed charges. The card issuer that is typically the bank opens a revolving account for the cardholder and extends a rule of credit from which the cardholder can borrow money for merchant payments or cash advances. Consumer credit cards and business credit cards are the two types of credit cards available. The majority of the cards are plastic, however there are a few metal cards that are stainless steel, gold, palladium, and titanium as well as a few gemstone-encrusted metal cards. A regular credit card differs from a charge card in that the balance on a charge card should be paid in full each month or at the end of each statement cycle. Credit cards, furthermore, allows the users to build an ongoing debt load that is subjected to interest charges.

RESEARCH METHODOLOGY:

Universe	India and outside India
Method of data collection	Primary and Secondary Data
Method of Primary Data Collection	Questionnaire by online sites (Open and close ended)
No. of Sample Respondents	105
Method of Data Analysis	Pie Chart and Bar Graphs

REVIEW OF LITERATURE:

Mr. Ramraj T. Nadar (2012) Assistant Professor, Guru Nanak College, Mumbai, India. "Customers' Satisfaction towards ATM Service – A Study of Bank Customers in Navi- Mumbai. Published in International Journal of Physical and Social Sciences Volume 2, Issue 7 July2012. This study helps to understand the services provided by the banks and also to know the strength and weakness of the ATM services provided by the banks. The study is to have an insight in which the customer's satisfaction with the ATM services and also to identify the customer 's opinions / expectations with regards to the same.

Dr. K. Shobha, (2012) Associate Professor in Economics Government Arts College, Coimbatore. "CUSTOMERS SATISFACTION LEVELS OF ATM CARDHOLDERS" Published by A Journal of Radix International Educational and Research Consortium, Volume 1, Issue 9 ISSN: 2250 – 3994.This study aims at investigating the satisfaction levels of ATM cardholders with respect to various aspects of the service quality of ATM and their opinions on various other related issues such as the inconvenient features while using ATM. This study uses purposive sampling technique where samples have been selected on the basis of certain criteria. This study provides information regarding the satisfaction level and problems faced while using ATM cards.

S. Banumathy, S. karpagam (July 2007), "ATM –A- User – Friendly mechanism or Not" this article examined the use of ATMs has greatly changed the lives of modern men and women. They have given an edge to the banks and financial institutions in efficiently carrying out their operation. They provide the advantage of accessing the account of customers any time anywhere, it is necessary to study the attitude of ATM users towards the facility.

Mary Bellis (16 march 2010), "Automatic Teller Machines (ATM)" this article states that, ATM allows a bank customer to conduct their banking transactions from almost every other ATM allows a bank customer to conduct their banking transactions from almost every other ATM machine in the world. The idea of creating a "hole-in-the –wall machine ". That would allow customers to make financial transaction. ATM invention and field tested the bank reported that there was little demand for the new invention and discontinued its use.

B. Manoharan (2007), "Progress in ATM Technology" this article examined, banking industry is the first major non-military sector of the world economy to be computerized. The Technology has influenced every aspect of banking system. with the development of technology and advent of the Interest, customers. Expectation of Service and products have risen to great heights, Technology is providing support to the customers to become more aware of the bank they choose to give their business.

OBJECTIVES:

1. To learn about ATM customer preferences around the world.

2. To learn about ATM usage and awareness among customers.

3. To determine the level of customer satisfaction among ATM users.

4. To make suggestions for product and service improvements.

ANALYSIS AND INTERPRETATION OF DATA:

A set of questionnaires consisting of 22 questions were randomly distributed to 105 people who lie in the age range of 18 – 45 above.

Table 1: Use of ATMs Card

Use	Frequency	Percentage (%)
Yes	101	96.2%
No	4	3.8%
Total	105	**100**

When respondents were asked that, whether they use ATM card/s, 101 respondents representing 96.2% consider that they use ATM card and 4 respondents representing 3.8% don't use ATM card.
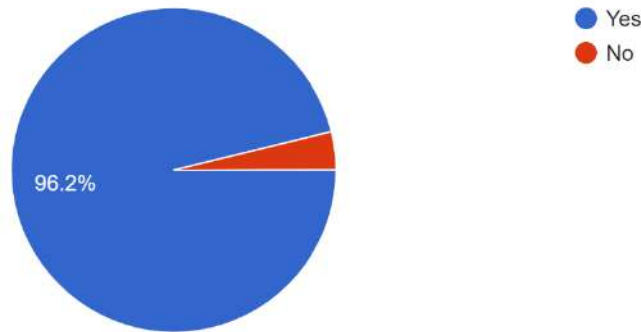
Table 2: Access to Debit, Credit cards or Both

Accessibility	Frequency	Percentage (%)
Debit	78	74.3%
Credit	21	20%
Both	6	5.7%
Total	**105**	**100**

When respondents were asked whether they use a Debit, Credit card or Both, 78 respondents representing 74.3% have Debit card, 21 respondents representing 20% have Credit card and 6 respondents representing 5.7% have both Debit and Credit cards.
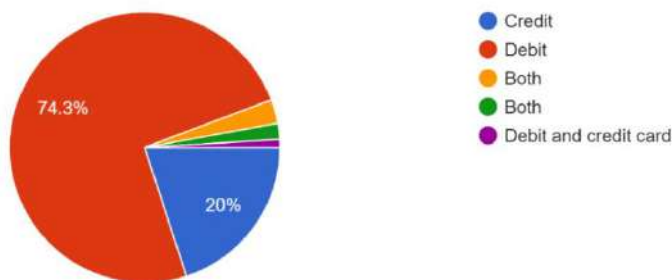

Table 3: Reasons for choosing ATM services from Bank

Factors	Frequency	Percentage (%)
Security and Trust	21	20%
Speed Transactions	57	54.3%
Convenience in use	71	67.6%
Near location of ATM outlets	46	43.8%
Consistency in service delivery	9	8.6%
Total	**105**	**100**

According to 71 respondents, Reasons for choosing ATM services is that it provides convenience in use to respondents while transactions.

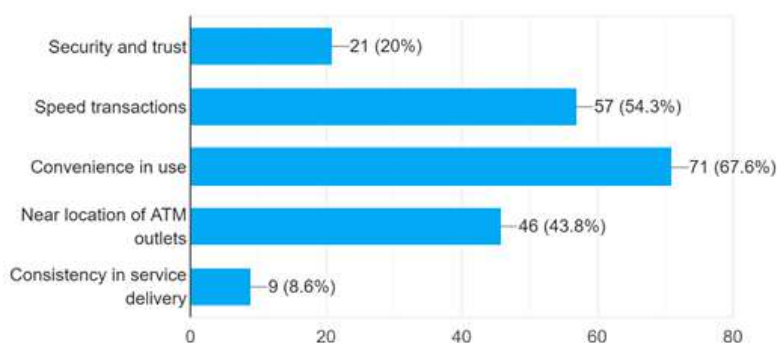**Table 4: Types of problems you/customers face most often**

Problems	Frequency	Percentage (%)
Machine out of order	77	73.3%
Cards gets blocked	9	8.6%
Machine out of cash	70	66.7%
No printing statements	29	27.6%
Old notes	14	14%
Total	**105**	**100**

Accoridng to 77 respondents, Types of problems faced by themselves/customers are that the ATM machine is out of order whenever they go to withdraw cash.
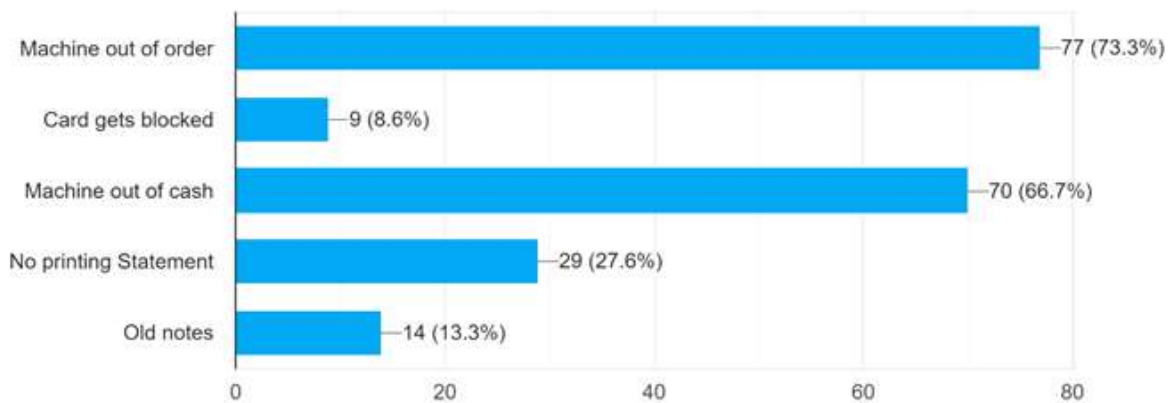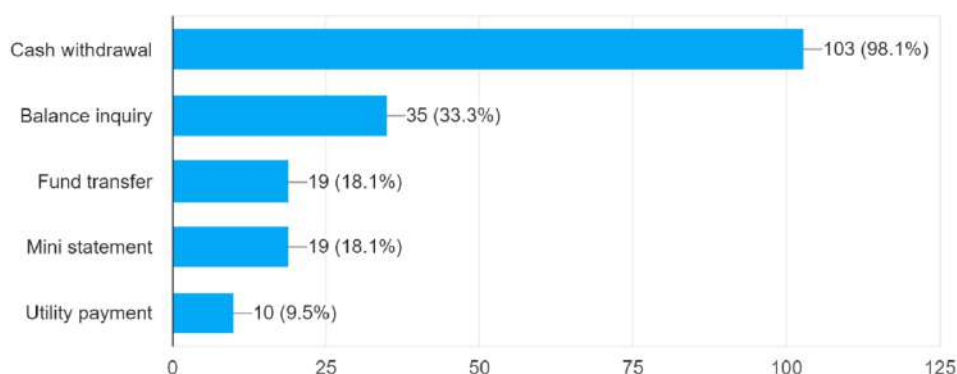

Table 5: Most Useful Services provided by ATM

Problems	Frequency	Percentage (%)
Cash withdrawal	103	98.1%
Balance inquiry	35	33.3%
Fund Transfer	19	18.1%
Mini statement	19	18.1%
Utility payment	10	9.5%
Total	**105**	**100**

Accoridng to 103 respondents, Most useful services provided by ATM is cash withdrawal.

DATA ANALYSIS:

The study is based both on primary and secondary data.

SUGGESTIONS:

- Banks should raise awareness about the many services provided by ATMs; only then will people be well informed of the various features of ATMs.

- The maximum amount of cash that can be taken out every day may be increased.

- Because transactions and withdrawals occur on a planned basis, additional ATMs may be deployed to reduce consumer transaction times.

- Banks should monitor ATMs on a regular basis to avoid ATM breakdowns.

- It was also advised that banks provide security guards to boost ATM service safety and security.

- In order to reduce machine difficulty, the bank should install more user-friendly equipment.

CONCLUSION:

ATMs have been belonged among the top 100 ideas of the 20th century. Their security system of magnetic strip cards with PINs, furthermost, may be nearing the end of its economic life cycle, or at the very least, in need of evaluation and re-engineering. ATMs have played a vital part in the evolution of computer technology during the previous quarter-century, as the first customer-activated computer systems, the first commercial secure systems, and one of the first distributed systems. They're also intriguing from a management point of view, because building a network with thousands of banks operating a wide range of technologies presents some unique issues, both for the banks and for the network as a whole.

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TO STUDY THE IMPACT OF EVOLVING OTT PLATFORMS ON DIGITAL PIRACY

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ABSTRACT

Piracy has been in the industry since the dawn of softwares. Before the innovation of the Internet, piracy took place at a very small pace and analysis of whether the CD's or DVD's are pirated was very difficult. But later due to the adoption of the Internet, Digital Piracy happened even more.

We plan to undertake exploratory research to evaluate the present and future scenario of Digital Piracy with special reference to the evolving usage of OTT platforms especially during the pandemic. The study will be based on primary data collected through questionnaire and secondary data through research papers, websites and e-journals.

Keywords: - Digital Piracy, Web Series, OTT platforms

INTRODUCTION:-

Illegal reproduction of movies, music, web-series, software, information, etc is termed as Digital Piracy. Over the last decades, the usage of Internet and Digital Media have led to an increase of consumers who copy and distribute products without the authorization of the real owners and this phenomenon is called Digital Piracy. The industry blamed Digital Piracy the reason behind incurring losses. The legal authorities quickly started implementing copyright laws.

The rapid evolution of Internet & Technology, majority of the people are switching to the Internet for maximum content consumption. Due to the Internet, the interaction between the legal creators and the consumers is modified and there are some interesting challenges faced by the creators in analysis of piracy. Digital Piracy has negative impacts on the producers and one should know how to counter piracy.

OBJECTIVES:-

1. To understand the point of view of respondents towards the rise of Digital Piracy and the reason behind it.

2. To analyze the knowledge of respondents about Digital Piracy and to help them know that it is a mass violation of Copyright.

3. To examine their preference and views on choosing cheaper movie tickets or subscriptions that might help reduce piracy and to analyze whether the original content creators incur any loss due to piracy.

4. To identify if piracy happened even before OTT came into picture and to examine different ways to stop Digital Piracy.

5. To study whether the respondents are aware about the Act's and Laws associated with Digital Piracy.

SCOPE OF THE STUDY:-

This research focuses on studying the view of respondents towards digital Piracy and their knowledge associated with it. This study will help us to identify the relationship between the rising usage of OTT platforms that could be the reason for the rise in digital piracy. It will also help us to understand the awareness needed about the Acts and laws associated with digital piracy.

METHODOLOGY OF THE STUDY:-

● Primary information has been collected via questionnaires from respondents of Mumbai Region.

● Random sampling technique is adopted to collect information from 122 respondents.

● Secondary data has been collected from research papers, websites & e-journals.

REVIEW OF LITERATURE:-

1. **Samala Nagraj, et.al., May 2021.** A study on factors affecting consumers willingness to subscribe to Over-The-Top (OTT) video streaming services in India. It studies the reasons about why a consumer subscribes or doesn't want to subscribe. It was observed that factors like content, convenience, features, price & quality along with demographic factors affects consumers' decision towards the subscriptions.

2. **Charles W. L. Hill, January 2007.** This paper discusses the causes, consequences and strategic responses of digital piracy. This paper analyzes the causes of piracy with reference to the factors that lead the

consumers to engage in piracy. It studies the consequences faced by the copyright holders and effective strategies that may help them deal piracy.

DATA INTERPRETATION & ANALYSIS:-

The questionnaire was filled by 122 respondents. The main aim was to understand the view of people towards Digital Piracy and their knowledge associated with it. It is to interpret that piracy is itself a crime but due to the intervention of the Digital era where OTT was invented, a new practice called Digital Piracy came into existence. However the sudden rise in Digital Piracy happened amid pandemic as theaters were closed and the original content creators started releasing their content on OTT platforms so that the audience can follow all the norms and still be entertained. Therefore here we try to interpret the data collected from respondents in a form of questionnaire and to analyze various aspects relating to Digital Piracy.

PROFILE OF THE RESPONDENTS:

Age
122 responses
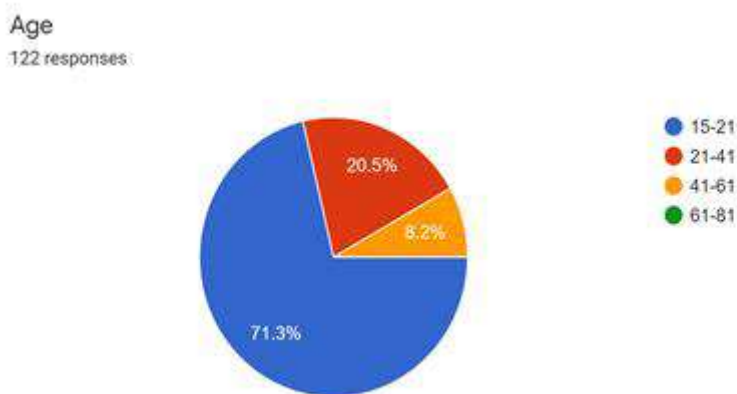
- 15-21
- 21-41
- 41-61
- 61-81

The age of a person helps in determining the knowledge level, experiences and exposure to various aspects, where perceptions may differ related to Digital Piracy in this era. The age profile of the respondents is divided as 15-21, 21-41, 41-61, 61-81. According to the above chart, the maximum number of respondents belonging to the 15-21 age group is 71.3% which means we have a very large number of respondents who are young and socially proactive. The second group of respondents belonging to the 21-41 age group is 20.5%. We have 8.2% respondents belonging to the 41-61 age group.

FINDINGS & ANALYSIS OF THE STUDY:

1. **CLASSIFICATION OF RESPONDENTS BASED ON THE AWARENESS AND MEANING OF DIGITAL PIRACY**

Do you know the meaning of Digital Piracy?
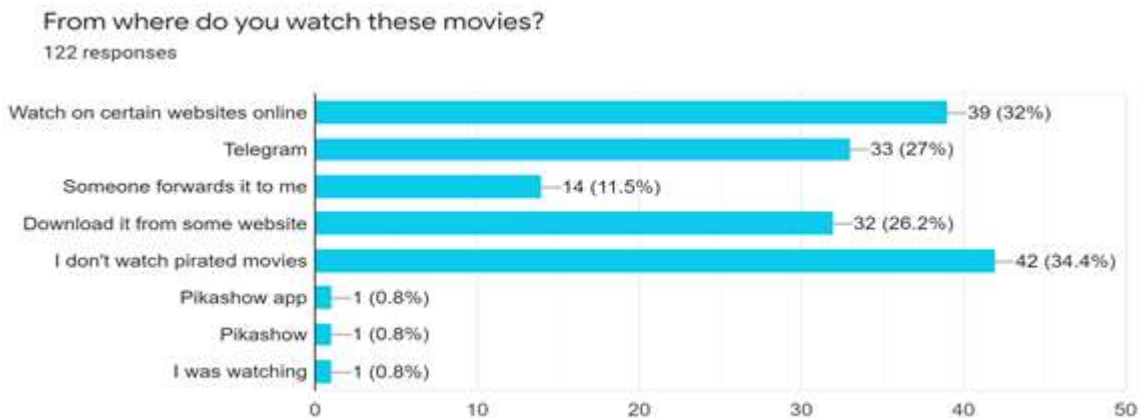122 responses

- Yes
- No
- Maybe
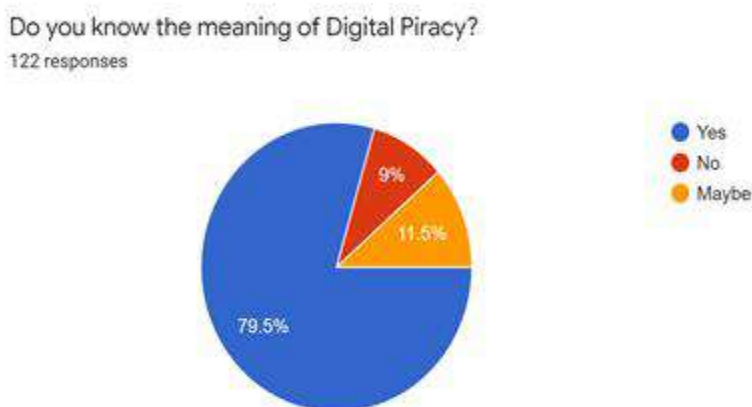
It is important to know whether the respondents know about the term Digital Piracy or not. This above pie chart is about knowing the meaning of Digital Piracy. Maximum number of respondents that is 79.5% opted for "Yes" which means they are aware about Digital Piracy. Among the 122 respondents, 9% of the respondents don't know about Digital Piracy. While the other 11.5% aren't sure.

2. CLASSIFICATION OF RESPONDENTS BASED ON WATCHING OF PIRATED MOVIES:

Do you watch pirated movies?
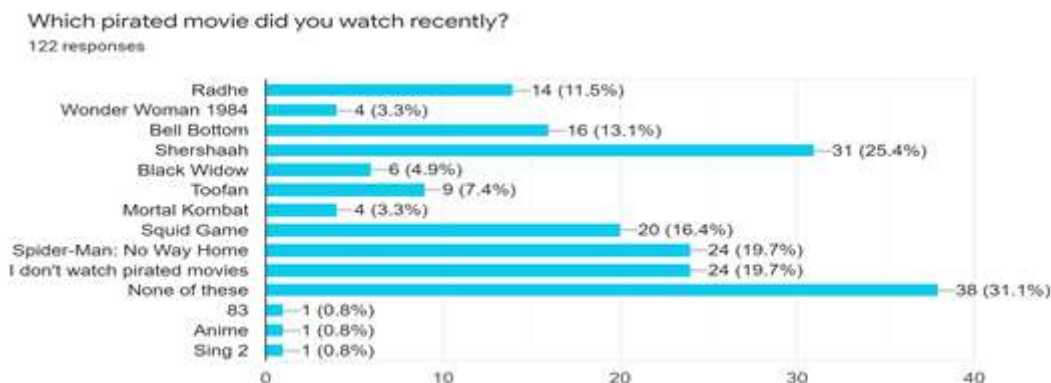122 responses

- Yes
- No
- Sometimes

27.9%
35.2%
36.9%
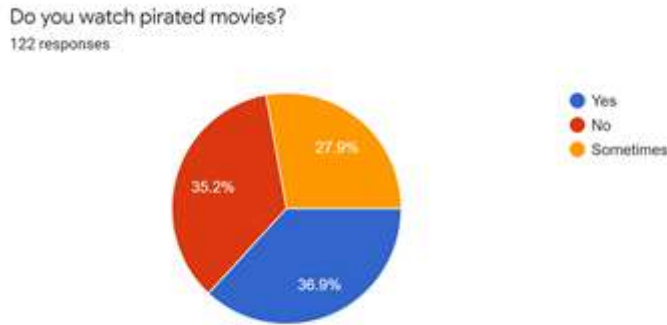
As we know that many people watch pirated movies so here we asked this question just to know the number of people who watch it. 36.9% respondents said yes they watch pirated movies. While 35.2% respondents denied that they do not watch copied content. We also have 27.9% people who watch it sometimes.

3. CLASSIFICATION OF RESPONDENTS BASED ON THEIR PREFERENCE OF PLATFORMS TO WATCH MOVIES

From where do you watch these movies?
122 responses

- Watch on certain websites online — 39 (32%)
- Telegram — 33 (27%)
- Someone forwards it to me — 14 (11.5%)
- Download it from some website — 32 (26.2%)
- I don't watch pirated movies — 42 (34.4%)
- Pikashow app — 1 (0.8%)
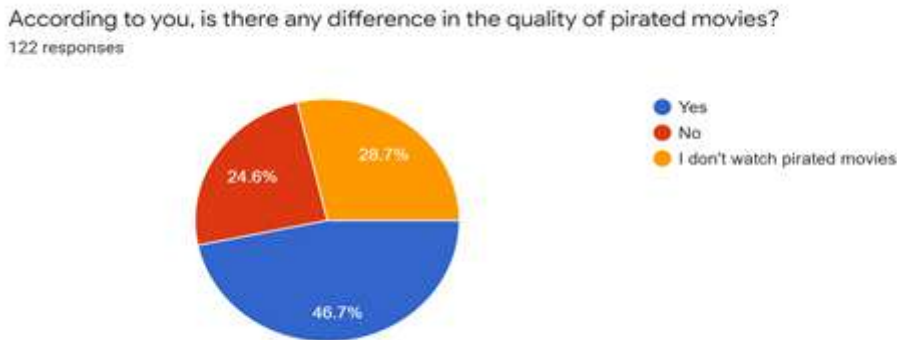- Pikashow — 1 (0.8%)
- I was watching — 1 (0.8%)

Pirated content is available on various websites, applications which can be downloaded and forwarded easily. Here we are trying to understand the different sources where copied content is released. 42 respondents among 122 that is 34.4% don't watch pirated content. 32% of the respondents watch certain websites online. 33% use the Telegram app to watch movies. 32% download the content from various websites. 11.5% receive forwarded movies. While 2 respondents watch it on the PikaShow app. One respondent says that they used to watch.

4. CLASSIFICATION OF RESPONDENTS BASED ON WHICH PIRATED MOVIE THEY HAVE SEEN SO FAR

Which pirated movie did you watch recently?
122 responses

- Radhe — 14 (11.5%)
- Wonder Woman 1984 — 4 (3.3%)
- Bell Bottom — 16 (13.1%)
- Shershaah — 31 (25.4%)
- Black Widow — 6 (4.9%)
- Toofan — 9 (7.4%)
- Mortal Kombat — 4 (3.3%)
- Squid Game — 20 (16.4%)
- Spider-Man: No Way Home — 24 (19.7%)
- I don't watch pirated movies — 24 (19.7%)
- None of these — 38 (31.1%)
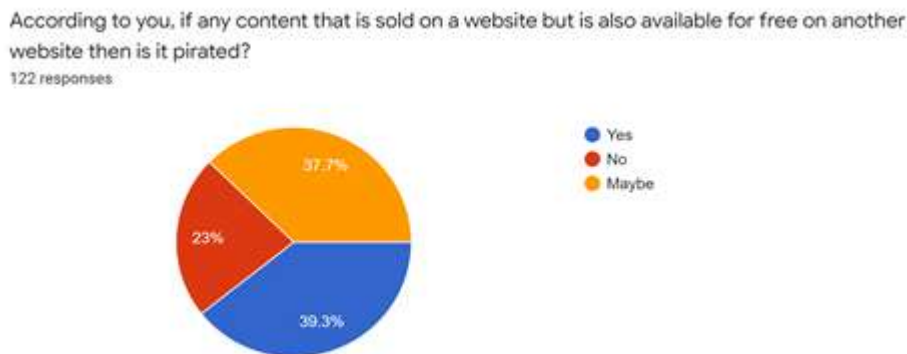- 83 — 1 (0.8%)
- Anime — 1 (0.8%)
- Sing 2 — 1 (0.8%)

Due to the pandemic, malls & theaters around the world were closed. Hence the entertainment industry came up with this idea of releasing movies and web series on OTT platforms. However the content was pirated and was freely available on different mediums. Movies like Radhe, Wonder Woman 1984, Bell Bottom, Shershaah, Black Widow, Toofan, Mortal Kombat, Squid Games, Spider-Man: No way home, etc were available on pirated website but the the maximum number of respondents that is 25.4% (31 respondents) watched pirated version of Shershaah movie.

5. CLASSIFICATION OF RESPONDENTS BASED ON THE DIFFERENCE IN THE QUALITY OF PIRATED MOVIES

According to you, is there any difference in the quality of pirated movies?
122 responses

- Yes
- No
- I don't watch pirated movies

28.7%
24.6%
46.7%

We all know that movies are pirated by using some software or screen recording applications. Therefore a question arises that does the quality of the movie remain the same? While here 46.7% respondents agree that the quality differs between the original version and the pirated version. 24.6% think there is no difference and 28.7% don't watch pirated movies.

6. CLASSIFICATION OF RESPONDENTS BASED ON THE AVAILABILITY OF FREE RESOURCE THAT MIGHT BE PIRATED

According to you, if any content that is sold on a website but is also available for free on another website then is it pirated?
122 responses

- Yes
- No
- Maybe

37.7%
23%
39.3%

We wanted to analyze whether the respondents are well aware about the pirated content and the original content. However 39.3% know that the content that is sold on a website but is available for free on another website is pirated. 23% thinks it is not and 37.7% aren't sure about it.

7. CLASSIFICATION BASED ON "IS FILM PIRACY A MASS VIOLENCE OF COPYRIGHT"

Is film piracy a mass violence of copyright?
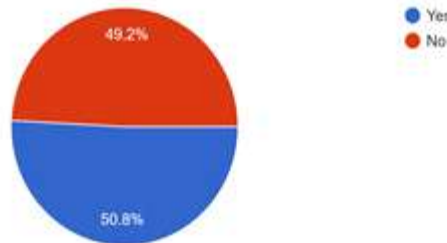122 responses

- Agree
- Disagree

17.2%
82.8%
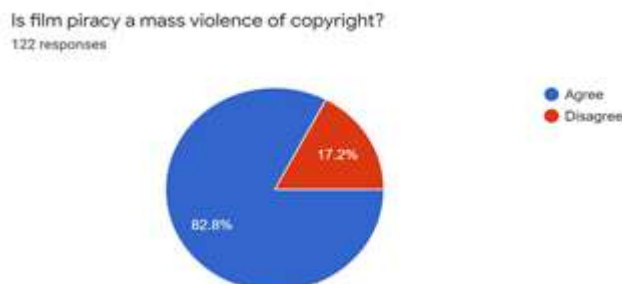
Digital Piracy is a crime and a violation of copyright. Therefore 82.8% of the respondents agree that piracy is a serious issue. However, 17.2% disagree.

8. CLASSIFICATION BASED ON THE WILLINGNESS OF A PERSON TO WATCH PIRATED MOVIES

Are you a person who will watch movies for free even if it is pirated?
122 responses

The above figure portrays the view of respondents whether they will watch movies for free even if it is pirated. Out of the entire respondents, 50.8% said yes and 49.2% said no.

9. CLASSIFICATION OF RESPONDENTS BASED ON THE FOLLOWING STATEMENT

According to you, did piracy take place even before OTT came into picture?
122 responses
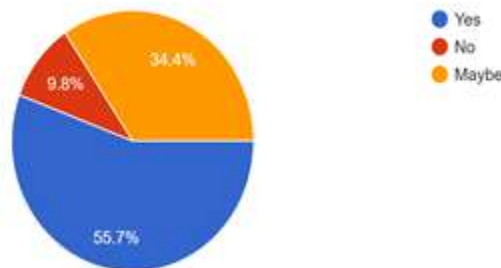
The above figure explains whether piracy took place even before OTT came into picture. 55.7% think that piracy happened before OTT came into picture. 9.8% think it didn't happen and 34.4% are in a dilemma.

10. CLASSIFICATION OF RESPONDENTS BASED ON THE FOLLOWING STATEMENT

Do you think OTT has given rise to piracy?
122 responses
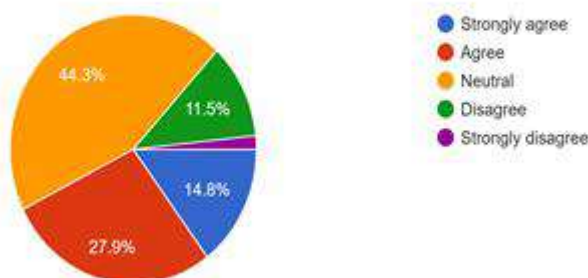
The above figure helps us understand if OTT has given rise to piracy. Due to the pandemic people were forced to switch from theaters to OTT platforms because of which piracy arose. This figure helps us to deduce that 14.8% strongly agree, 27.9% agree, 44.3% says neutral, 11.5% disagree and the rest strongly disagrees.

## 11. CLASSIFICATION OF RESPONDENTS BASED ON THE FOLLOWING STATEMENT

Don't you think it is unfair for the people who pay for an OTT subscription while the others use piracy websites and watch movies for free?
122 responses
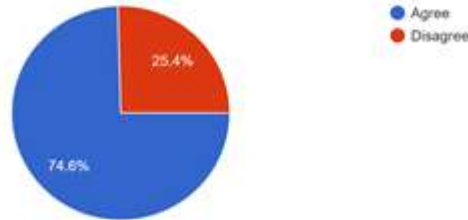
Here the respondents were asked if they feel that it is unfair for those people who pay for an OTT subscription while the others use piracy websites and watch movies for free. The subscription of an individual OTT platform starts from Rs.199/- and some people buy the membership. But those using piracy sites watch tons of content for free. Therefore our 74.6% respondents agree that it is unfair while 25.4% disagree.

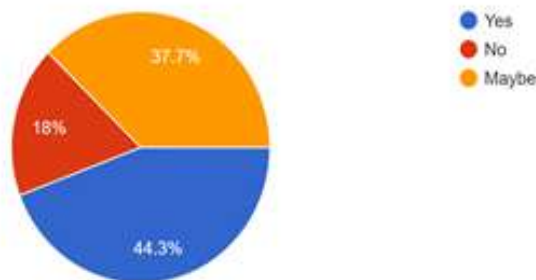## 12. CLASSIFICATION OF RESPONDENTS BASED ON THE FOLLOWING STATEMENT

Do you agree that people who are software developers or those who have knowledge about software can easily copy films from streaming websites?
122 responses
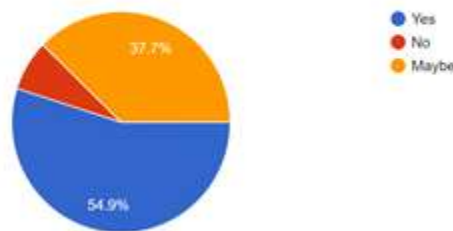
Movies and web series are copied by using some softwares or screen recorders. People who have knowledge about softwares might know how and which software to use. So the respondents were asked the same question and 54.9% people think that software developers or people having knowledge about software can copy films or web series easily. 7.4 people said that is not possible while the rest 37.7% aren't sure.

13. CLASSIFICATION OF RESPONDENTS BASED ON THEIR PREFERENCE ON CHEAPER MOVIE TICKETS OR CHEAPER SUBSCRIPTION OF OTT PLATFORM TO STOP PIRACY


Do you think cheaper movie tickets or cheaper subscription of OTT platform can stop piracy of movies?
122 responses

This figure shows whether cheaper movie tickets or cheaper subscriptions of OTT platforms can stop piracy. Out of all respondents, 44.3% said yes, 18% said no and 37.7% said maybe.

## 14. CLASSIFICATION OF RESPONDENTS BASED ON THE FOLLOWING STATEMENT

Do you think makers are incurring loss due to piracy?
122 responses
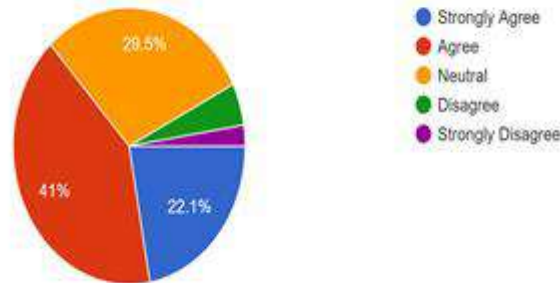
The above statistics shows that most of the respondents think that makers are incurring loss due to piracy. 22.1% strongly agree, 41% agree, 29.5% say neutral, 4.9% disagrees and 2.5% strongly disagree.

15. CLASSIFICATION OF RESPONDENTS BASED ON THE FOLLOWING STATEMENT


Do you think releasing movies in theatres is far better than releasing movies on OTT platforms?
122 responses
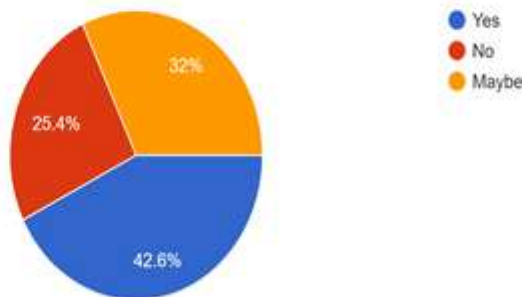
This figure portrays the comparison between movies released in theaters and movies released on OTT platforms. Majority of respondents i.e 42.6% think that releasing movies in theaters is better.25.4% think that OTT is better. 32% aren't sure.

## 16. CLASSIFICATION OF RESPONDENTS BASED ON THE FOLLOWING STATEMENT

Do you think releasing movies will make the makers earn more profit only via
122 responses
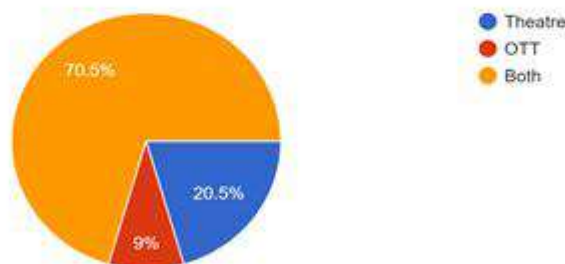
The figure is about earning profit by makers by releasing their content in theaters, on OTT platforms or on both. Maximum number of respondents that is 70.5% think that it is better to release through both the mediums. 20.5% think theaters are better and 9% think OTT will help makers earn more profit.

17. CLASSIFICATION OF RESPONDENTS BASED ON THE AWARENESS ABOUT ANY ACT THAT DESCRIBES ABOUT PUNISHMENT ASSOCIATED WITH DIGITAL PIRACY

Are you aware about any Act that describes about punishment associated with Digital Piracy?
122 responses
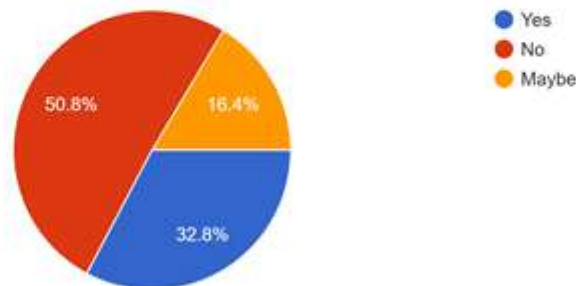
As we know Digital Piracy is violation of copyright and hence there are few Act's associated with them. We wanted to analyze whether our respondents are aware of it or not. So the maximum number of participants that is 50.8% said no, 32.8% said yes and the rest 16.4% said maybe.

18. CLASSIFICATION OF RESPONDENT TO KNOW WHAT CAN BE DONE TO STOP PIRACY

According to you, how can we stop piracy?
122 responses
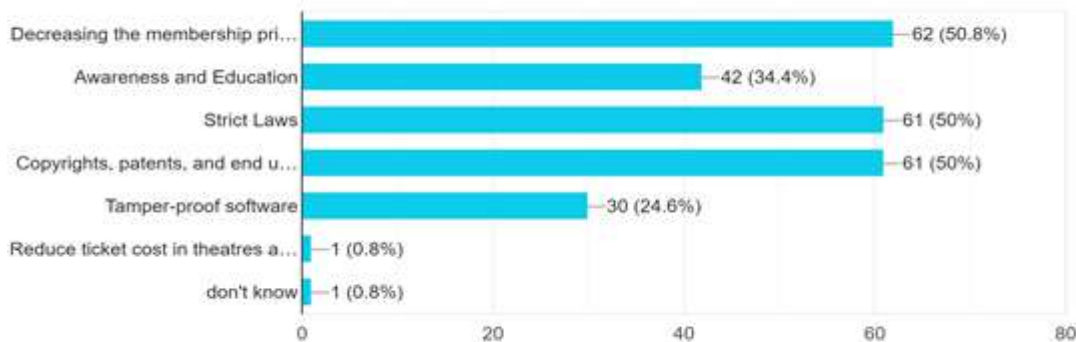
This figure shows that people are concerned about Digital Piracy. Out of 122 respondents, 62 respondents feel that decreasing the membership price of OTT subscription can reduce piracy. 61 respondents think that strict laws and copyright, patents and end user agreements can stop piracy. 42 people think that awareness and education can stop piracy. 30 respondents think tamper-proof software can stop piracy. 1 respondent thinks that reducing ticket cost in theaters as well as releasing movies on OTT platforms within 15 days of the movie release can reduce piracy.

CONCLUSION:-

This study examines the factors responsible for the rise in Digital Piracy amid the pandemic. The entire world witnessed the pandemic. The theatrical experience was dispersed in respect of at home experience. This shift was made just to keep the watchers entertained even if it was at home. However to be entertained, you had to get the membership of these OTT platforms. To avoid spending money, the idea of watching content for free arose. According to the analysis, in order to get access to the content for free, the usage of reproduced products increased. The present study also helps us conclude that the consumers may avoid being a pirate individual or contribute to the increase in piracy only if the rates or price of watching a movie or having access to an OTT platform is reduced.It also reflects the preference of People more towards theaters instead of OTT because of the experience, entertainment factor involved. Respondents also showed their concern about the picture quality and the losses incurred by the makers if the release is on the OTT. This study also shows that people need to be educated and made aware of the Acts and regulations that deal with digital content violations.

SUGGESTIONS:

1. Websites or applications which have the availability of unauthorized content must be banned.

2. Ethical hacking or software usage ethics should be taught to every individual at some stage of education.

3. Awareness about liable punishments has not been made and that can also be a reason behind the faster shift towards piracy.Lack of awareness and education, strict laws, tamper-proof softwares, reduction in rates of a movie ticket or a membership are all possible factors leading to piracy.

4. Ease to access the legal content will also combat digital piracy.

5. Educating individuals about the usage of anti-piracy services can also help to fight against digital piracy.

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ADOPTION AND AWARENESS ABOUT BLOCK CHAIN TECHNOLOGY WITH RESPECT TO BANKING SECTOR

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ABSTRACT

This study is mainly aimed at covering the application of blockchain technology (BCT) in the Indian banking sector and its benefits in banking operations. This paper covers Adoption and Awareness about BLOCKCHAIN TECHNOLOGY with respect to the Banking sector . The research paper highlights how blockchain technology is directing key issues such as speedily and securely transmission of data, value to and from several transaction partners, cost of processing payments, new products, and services creation. The paper also covers various advantages brought out by blockchain technology such as to automate the verification process and eliminating the need for multiple parties to confirm manual validity of banking transactions. With the help of blockchain technology, India's banking and financial systems can be expected to transform the banking process to a new and greater level. This study covers the field investigation as to how existing Blockchain technology is helping banks to effectively and efficiently monitor and control the banking process of India's banking and financial institutions.

INTRODUCTION

In the year 1991, Staurt Haber , W.scott introduced the block chain , Blockchain is a group of information and it is also called as blocks. Each block collects information and has limited storing capacity , once the storing capacity of a particular block is at its limit then, the information continues to get stored on to the next block and this process goes on and on same for all the blocks thus , it creates a chain of blocks . Therefore , it is called blockchain. BTC Records Transaction in Digital Ledger which is distributed over the Network thus it helps the records to remain incorrupt and can't be changed. Anything of value fixed assets. can be recorded as a Transaction. In banking sectors , Blockchain handles the management of bringing greater efficiency and transparency to the banking industry, like, it allows cross-border transactions to be made in real-time and money exchanging at speed. BCT is one the best and futuristic security enhancement technology.

The History of BLOCKCHAIN

Blockchain was first introduced in 1991 , Recently , it has grown intensively and has potential to be the bedrock of world-wide record keeping and finding of data systems. It is one of the best technologies for stronger security.

A brief history of blockchain:

● 1991

A cryptographically secured chain of blocks was introduced for the first time by Stuart Haber and W Scott Stornetta

● 1998

Further , A Computer scientist named Nick Szabo worked on 'bit gold', a decentralised digital currency.

● 2000

Stefan Konst publishes his theory of cryptographic secured chains, plus he gave ideas for implementation.

● 2008

Co - workers' working under the pseudonym Satoshi Nakamoto released a white paper establishing a model for a blockchain

● 2009

The first blockchain as the public ledger for transactions made using bitcoin implemted by Nakamoto

The second generation

Other blockchains include those that run the several "altcoins" – other similar currency projects with different rules – as well as different applications, such as: Ethereum , Ripple.

Features of Block chain technology:

Blockchain is a digital transaction record. The name is derived from its structure, in which individual records, called blocks, are connected together in a single list, called a chain. Blockchains are used to record transactions made with cryptocurrencies, such as Bitcoin, and have many other applications. In simple terms, Blockchain is a method for managing and storing information in a way that makes it difficult or impossible to change, hack, or cheat the network. A blockchain is basically a digital transaction record that is duplicated and distributed across the entire network of computer systems on the blockchain.

Banking sectors are moving from their traditional methods of securities to high-tech securities. Industry has started experimenting with blockchain by replicating current asset transactions on the blockchain. Although this gives some room for the effectiveness of the blockchain solution. In infrastructure terms, Blockchain is an open source software designed to support the transfer of digital assets among market participants in real time. Using any chosen blockchain APIs, one may demonstrate a drastic decrease in asset transfer costs and timelines.

The main advantages of Blockchain technology in the banking sector are that it improves efficiency, enhances security, unchangeable records, quick transaction time and no third party involvement thus decreasing costs.

One of the main advantages of blockchain is the history of immutable transactions. Any purchases that have been made once cannot be removed. This will help to reduce much of the crimes committed against financial institutions.Blockchain uses the Smart Contracts principle. It includes a set of laws by which the parties involved in the contract agree to deal with each other. It allows any kind of digital information to be stored and allows the party to access or modify data only in accordance with a set of predefined rules.

Many financial firms pay millions of dollars a year to retain all their consumer records. But blockchain allows all the information to be stored in one location. This guarantees the dignity and non-repudiation of the stored data. It allows organizations to access the verification information of a specific customer from another organization and thus avoids duplication of data.

Blockchain increases the processing speed of transactions. The distributed existence eliminates the need for intermediaries to authorize financial transactions between consumers. This offers a cheaper and easier way to exchange currency at lower rates than bank charges.

It is the safest way to avoid fraud, money laundering and promises.

OBJECTIVES OF THE STUDY:

1. To analyze the knowledge of respondents about the concept of BlockChain Technology.

2. To understand the point of view of the respondents towards implementation of the BlockChain technology with respect to the Banking sector.

3. To examine any possible risk associated with block chain technology according to the respondents.

4. To understand the futuristic scope of block chain technology.

SCOPE OF THE STUDY:

This research focuses on to know how many people are aware about the block chain technology and how block chain technology will enhance the security in the banking sector .Also to know respondents' opinion about in which sector block chain technology will be implemented and what is the future of this blockchain technology.

METHODOLOGY OF THE STUDY:

❖ Primary information has been collected through questionnaire method by different respondents

❖ Random sampling technique is adopted to collect information from 52 respondents

❖ Secondary data has been collected from websites

Profile of the respondents:

Tabel 1.1:. Respondents based on age groups

Age of respondents	Percentage
18-25	94.2%
26-40	5.7%
41- 60	0%
60& above	0%

Table 1.1 shows Between 18-25 is **94.2%** respondents **.** Age helps to determine the knowledge level of the respondents which would in turn have different perceptions towards various aspects related to block chain technology . The age profile has been divided in 4 categories namely 18-25 ,26-40 ,41-60 &60 above.

It shows that the maximum no. of respondents belongs to the age group 18-25 that is 94.2% . This hence helped to indicate that the maximum respondents are young and having knowledge about changes in technology.

Table 1.2: Classification of respondents based on gender

Gender	Percentage
Male	32 .7%
Female	67.3%

The gender of the respondents is included as one of the profiles in this study. To know their perception on BLOCKCHAIN TECHNOLOGY in the banking sector.

From the above table 1.2 it is observed that the female respondents are more than male respondents. Out of all the respondents, female respondents are 67.3% and male are 32.7%.

Finding and analysis of the study:
1. **CLASSIFICATION OF RESPONDENTS BASED ON HOW MUCH AWARE THEY ARE OF THE TERM BLOCKCHAIN TECHNOLOGY.**
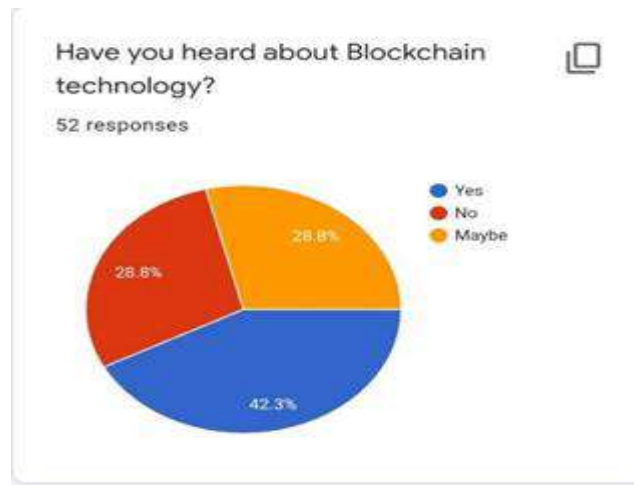

The above piechart shows the division of respondents from where they heard the word BLOCKCHAIN TECHNOLOGY . 47.3% of respondents have heard about this term . Similarly 28.8% are not sure that they are aware of this term or not. Equal no. Of respondents are not aware of this term .

2. **Respondents are classified from where they had heard this term.**
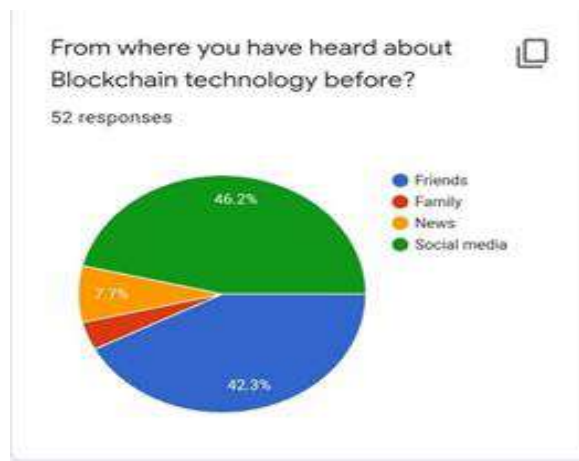
From the pie chart we can see that respondents had heard this term from social media. This shows that people are more active on social media . after that many of them heard this term from there friends this shows that many people except respondents are aware of this term

.3. Respondents classified based who find BLOCKCHAIN and cryptocurrencies are same
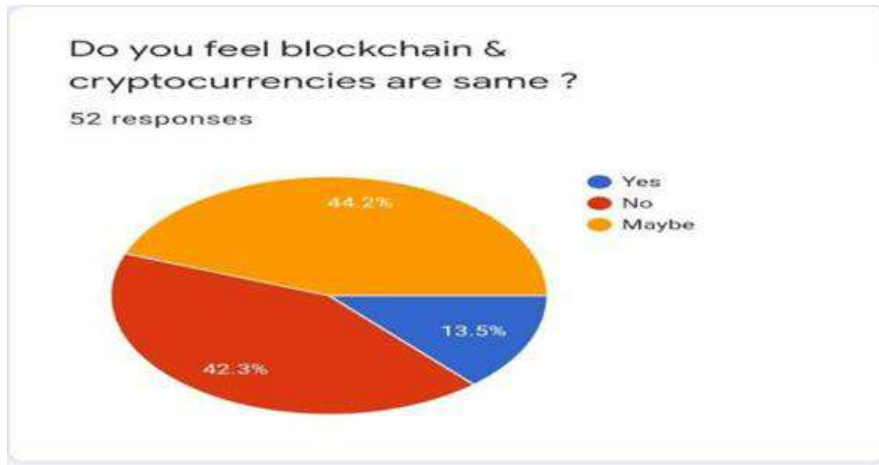

As you can see in this pie chart many of the respondents are confused between crypto currency and BLOCKCHAIN TECHNOLOGY they are sure about it. Almost the same no. around 42.3% respondents find this technology and crypto currency different.very few people find both are different. Which means Respondents know that both the terms are different.

4. RESPONDENTS CLASSIFIED BASED ON HAVING KNOWLEDGE ABOUT BENEFITS OF BLOCK CHAIN TECHNOLOGY.
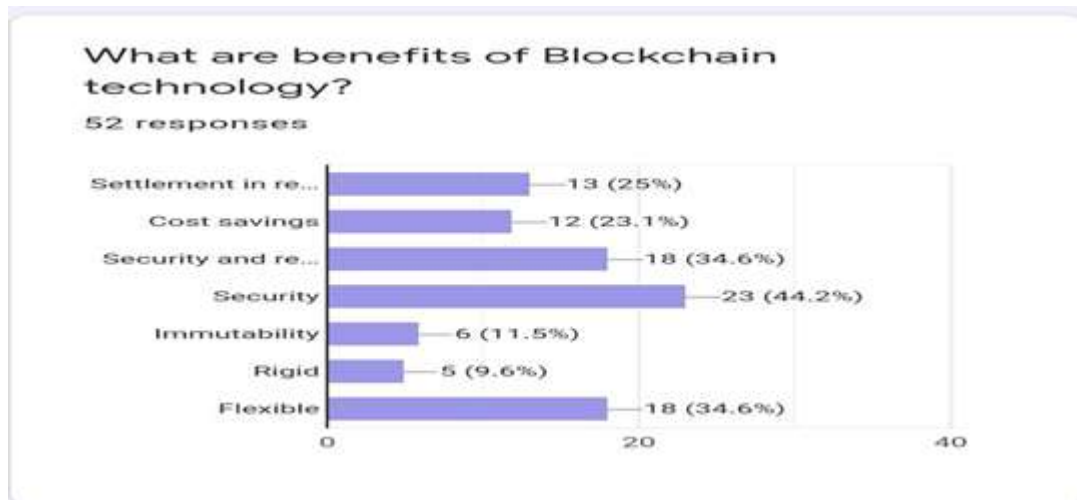

This chart divided the respondents into 7 parts Maximum no. of respondents found this technology be secure and then in security and resilience.after that many of the respondents find this technology is . This chart also shows that people are not aware about immutability.

5. Respondents classified based on their knowledge about the platform for developing blockchain technology applications .
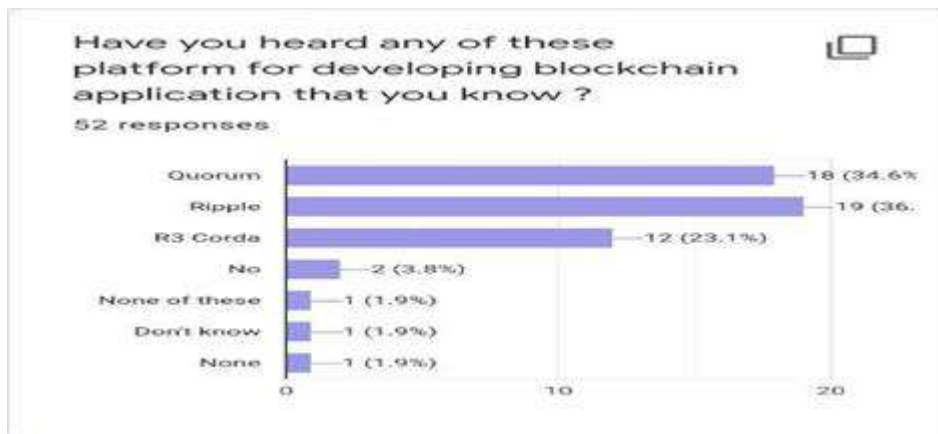
This graph shows mixed responses. About 18 respondents out of 52 know about Quorum that it is a popular platform to develop block chain applications .Around 19 respondents know about Ripple. .12 responses belong to the R3 corda . Since all three applications are well known applications for developing block chain technology. But we cannot say many people know about it, there are some people who don't know about any of these applications.

6. **Classification of respondents having knowledge about what kind of data recorded in this technology.**
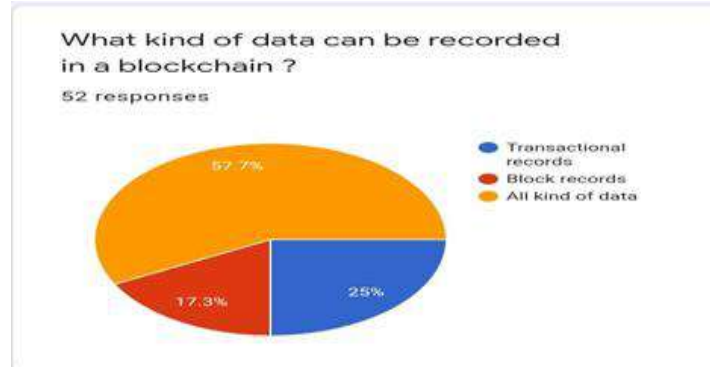
This pie chart showcases that 57% of respondents think that all kinds of data is recorded in this technology. 17.3 % respondents feel it records only block records and 25%person feels it records only transactional records . Majority respondents feel all kinds of data is recorded.

7. **In India in which industry or domain this technology is on this basis respondents were classified .**
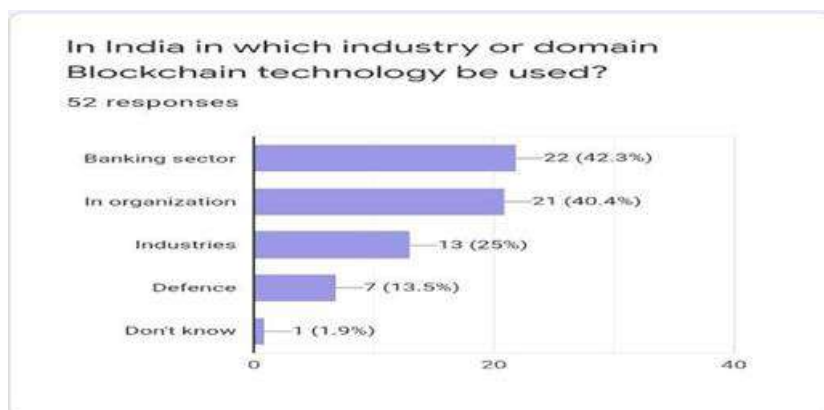
We had asked the respondents in which domain they want block chain technology to be used. 22 out of 52 people want it to be used in the banking sector. They find it secure and 21 people want it to be applied in an organization so that all confidential documents will be safe and it will work in a more systematic manner . There are some people who want it to be applied in industries and defence.

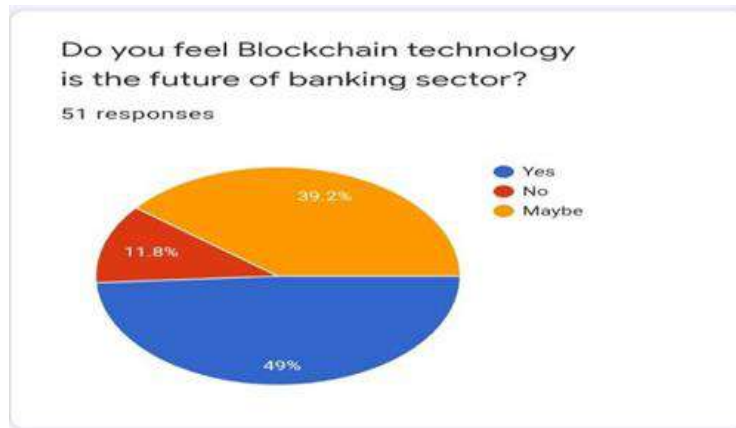Maximum number of respondents want it to be implemented in the banking sector.

8. **Respondents are classified on the basis of knowing there perspective about if block chain technology be used in banking sector will it enhances the security.**
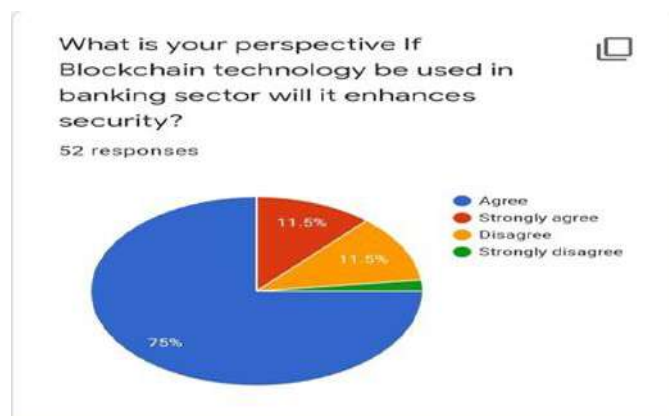
This pie chart shows that the maximum number of respondents who agree with this technology will enhance the security of the banking sector. But at same time equal no. Of participants who strongly agree and disagree with the statement. People agree that security is one of the features of block chain technology as shown in the above pie chart but at the same time they are not sure and do not agree that this will enhance the security.

9. **Classification of respondents on the basis who feel this technology will be the future of the banking sector.**

This pie chart shows that 49% of respondents are sure that blockchain technology will be the future of the banking sector.39.2% of respondents are not sure about it. Around 11.8% of people don't feel that blockchain technology will be the future of the banking sector.

Maximum number of respondents feels that blockchain technology will be the future of the banking sector. This means people are ready to adopt new technology .

10. **Classification of respondents who finds blockchain technology will provide faster settlement in future**
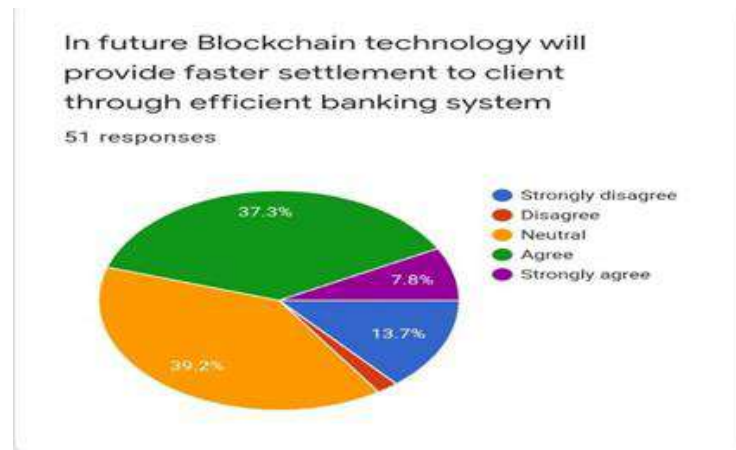
This pie chart represents that 39.2% people are not sure that this technology will provide Faster settlement or not to the clients. Out of this 37.3% respondents agree with the statement that the banking system will provide faster and efficient settlement to their clients.We can see that very less no. Of respondents are disagree with the statement.

CONCLUSION:

After looking at the responses it can be concluded that people are aware of block chain technology but they don't have much knowledge about it. Since block chain technology is being more popular for security purposes nowadays, the majority of people agree that this technology be used in the banking sector . Respondents agree that security is the main benefit of this technology but they are still not aware about some of the features like immutability, rigidity of this technology . We can make awareness of this technology by using social media because people are more active in social media we say analysing the responses of respondents.

SUGGESTIONS

1. The term Block chain technology is very upcoming and a new term for the people.

2. There should be some awareness programs /courses to make people more aware about technology .

3. More use case, scenarios should be discussed with the pupils.

4. It can be implemented in the banking sector as it will enhance the security system and make things more systematic not only in the banking sector but can also be used in other sectors too.

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NON-FUNGIBLE TOKEN (NFT): OVERVIEW, EVALUATION, OPPORTUNITIES AND CHALLENGES

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ABSTRACT

The Non-Fungible Token (NFT) marketplace is mushrooming in current years. The idea of NFT at the start comes from a token general of Ethereum, aiming to differentiate every token with distinguishable signs. This kind of token may be sure with virtual/virtual residences as their particular identifications. With NFTs, all marked residences may be freely traded with custom designed values in step with their ages, rarity, liquidity, etc. It has substantially inspired the prosperity of the decentralized application (DApp) marketplace. At the time of writing (May 2021), the whole cash used on finished NFT income has reached 34 , 530 , 649 .86 USD. The thousandfold go back on its growing marketplace attracts large interest worldwide. However, the improvement of the NFT atmosphere remains in its early stage, and the technology of NFTs are pre-mature. Newcomers might also additionally wander off of their frenetic evolution because of the shortage of systematic summaries. In this technical report, we discover the NFT ecosystems in numerous aspects. We begin with a top level view of modern day NFT solutions, then offer their technical components, protocols, standards, and favored proprieties. Afterwards, we provide a protection evolution, with discussions at the views in their layout models, possibilities and challenges. To the quality of our knowledge, that is the primary systematic take a look at at the modern-day NFT ecosystems

Keywords: NFT, smart contracts, blockchain, price analysis

INTRODUCTION

The starting place of the idea which caused the introduction of contemporary NFTs may be traced lower back to 2012 when "coloured cash" have been being mentioned withinside the bitcoin network. The concept of coloured cash become easy but novel, as all of us recognize that bitcoins are fungible, that is, one bitcoin can not be differentiated from another. However, it become discovered that through meticulously tracing lower back the starting place of a selected bitcoin, it become possible to differentiate it from others through assigning a 'color'. The use instances of this new idea protected virtual collectibles, network currencies, company currencies, clever properties, and issuing stocks of a company. Through numerous studies papers have been written on it, which include one from Vitalik Buterin, Ethereum's founder, the concept of coloured cash failed to materialize because of the reluctance of the bitcoin network, however it definitely laid the muse for NFTs. Later in 2017 with the discharge of the brand new ERC721 token (Ethereum Request for Comment) at the Ethereum blockchain, NFTs were given their first fundamental traction, a number of the maximum famous initiatives being Cryptopunks and Cryptokitties. The fundamental concept of Cryptopunks revolved round developing a most of 10,000 characters at the Ethereum blockchain as a connection with the Cypherpunk network individuals who have been some of the rust ones to test with an digital peer-topeer foreign money a great deal earlier than the formation of bitcoin. CryptoKitties become the primary blockchain-primarily based totally recreation in which customers should alternate, breed, and gather digital cats. The recreation were given great media interest and went viral, to the factor that a number of the uncommon collectibles have been offered for extra than 100,000$. It become because of successes like those that traders began out giving interest and investment NFT initiatives. In 2019, NFT marketplaces, or exchanges launched, the famous ones being Opensea.io and Rarible. Users should alternate the use of clever contracts, permitting trustless transactions to show up securely, and a report of the possession of the NFT is maintained at the blockchain. Further, the writer of the NFT receives royalties on every occasion it's miles re-offered to a buyer. With the functions of scarcity, excessive liquidity, legitimate possession, royalties to the writer, steady trustless transactions, and simplicity of change NFTs have a tendency to have the ability to emerge as highbrow properties. This is what ascribes fee to it. As a end result of which the artist Beeple become capable of promote their virtual artwork as an NFT for about $sixty nine million and Twitter's CEO Jack Dorsey offered the primary-ever tweet for about $2.nine million. Even aleven though NFTs have won lots of interest in a brief period, one need to now no longer take it for granted, it's miles nevertheless withinside the preliminary tiers of its development. There are many demanding situations but to be triumph over and lots of possibilities to be explored. Through this paper, we intend to offer a one-stop-save for anybody trying to hold close this new idea through going via the assessment of what an NFT is and the way it's miles made, going into the technical info of it, discover the ability use instances, factor out the demanding

situations and finally correlate the rate motion of NFTs and the lively pockets addresses to the marketplace rate of Bitcoin and Ethereum.

OBJECTIVE OF STUDY:

- To identify the future of NFTs in India.

- To Evaluate NFts

- To find what are the Challenges in NFTs

RESEARCH METHODOLOGY:

The research paper is totally based on secondary data. Various reports of national and international agencies on NFTs are searched to collect data for current study. As it is not possible to go outside for data collection due to lockdown, information are collected from different authentic websites, journals and e-contents relating to NFTs.

ANALYSIS AND INTERPRETATION OF THE DATA:

How to create an NFT:

The manner of making after which buying and selling an NFT may be a busy one for a newcomer, right here we can deliver an outline of the manner. There are predominant duties involved. First, The real introduction of artwork, as in a photograph, virtual artwork, audio, and so on. The NFT writer uploads the, writes an outline and title, units the proportion of royalty they preference at the resale. The proprietor then shops the information into the database of the change wherein they're list their NFT, this database is outdoor the blockchain. The proprietor additionally has the choice to save the information withinside the blockchain however it's going to require them to pay a few fueloline fee. A transaction is despatched to a clever agreement, this transaction consists of the signature of the proprietor and the hash of the NFT information. This is whilst the NFT is minted and the buying and selling manner begins, at the conformation of the transaction through the clever agreement the minting manner completes. Meaning that now the NFT is saved at a completely unique deal with withinside the blockchain forever.

An NFT is a completely unique virtual asset that isn't always without delay replaceable with every other virtual asset (as a result the name "non-fungible"). Many bodily belongings also are non-fungible. Real estate, for example, is non-fungible when you consider that every piece of belongings is specific from others.

A "fungible" token, through contrast, is one this is replaceable with every other one equal to it. Ether is the fungible token that trades at the Ethereum community, which means one Ether is equal to every other. The identical is going for Bitcoin. One Bitcoin may be exchanged for every other Bitcoin due to the fact they have got the identical price. Physical currencies paintings this manner, too. One bodily greenback invoice is similar to every other greenback invoice, and as a result every are "fungible." But every NFT is specific; there is not every other one precisely love it out there, so they're non-fungible -- or not able to precisely update every other.

Code is written into this virtual token and recorded the use of the blockchain community it is primarily based totally on (again, typically on Ethereum) to show a listing of historic possession and the cutting-edge proprietor of a completely unique virtual asset. An NFT can constitute any virtual introduction -- artwork, music, videos, writing, etc.

How many NFTs are there?

At the cease of October 2021, there had been almost 7,000 special varieties of cryptocurrencies worldwide. Most NFTs are constructed on Ethereum, however lots of those tokens make use of a special blockchain or had been constructed on a proprietary NFT platform. As a result, there are innumerable person NFTs representing works of artwork, videos, online game content, music, and greater. As greater artists and creators employ NFTs to stable and monetize their paintings, this wide variety will handiest boom over time.

How do NFTs paintings?

How precisely are NFTs used? Digital artwork collections, for one. In March 2021, an NFT representing an image, "Everyday: The First 5,000 Days," through artist Beeple turned into auctioned through Christie's for $sixty nine million. The client of the NFT now has possession of the virtual artwork connected to it. Digital creators Larva Labs auctioned off person CryptoPunks characters in 2017; a number of the NFTs at the moment are really well worth tens of thousands and thousands of dollars.

These are a few severe examples of ballooning NFT values. For not unusualplace functionality, though, artists can use NFTs to promote their creations to creditors and different virtual creators. An proprietor or writer of an NFT also can accumulate royalties for the artwork's replica or use on-line. NFTs keep promise as a manner to put in force virtual copyright and trademark law.

Real-global use instances abound, too. Nike (NYSE:NKE) owns a patent on NFTs to authenticate footwear as specific gadgets. But outdoor the area of creditors' gadgets (a shape of current first-class artwork speculation), NFTs may want to have a few practical, ordinary price. Remember the aforementioned titling of bodily belongings including motors or actual estate? Blockchain-primarily based totally tokens will be used to assure possession of bodily belongings and reduce out costly intermediaries who historically take care of titling offerings and associated felony documentation. It's nevertheless early days for NFTs, though, so greater thoughts may want to emerge withinside the years ahead.

Why are non-fungible tokens essential?

Besides representing a manner for virtual artists and different creators to monetize their paintings, NFTs are imagined because the evolution of artwork making an investment and amassing and as a part of a brand new cryptocurrency funding asset magnificence. Since an NFT is specific, there is continually a narrow danger an NFT series may want to balloon in price (like Beeple's virtual artwork). If you are an artwork collector, NFTs are clean to shop for and promote on an internet market including Open Sea. Cryptocurrency buying and selling app Binance is launching an NFT market, and Coinbase Global (NASDAQ:COIN) may do the identical (it has invested in numerous NFT marketplaces, together with Rarible).

But, for the common investor, NFTs constitute a extraordinarily speculative magnificence of funding that need to possibly be avoided. NFTs do not advantage in price due to their software however are primarily based totally at the price of the media they constitute (virtual artwork, video, music, etc.). Sticking a price on some thing like artwork is enormously hard and subjective and not like valuing a percentage of stock, which represents an possession stake in a enterprise and a declare on destiny income generated through the enterprise.

Investors who need a few oblique publicity to NFTs besides may recollect including a bit Ether to their portfolio when you consider that maximum NFTs make use of the Ethereum community's blockchain. Ether is likewise a extraordinarily speculative funding, even though it may boom in price if Ethereum community use rises over time. (It's essential to notice there's no cap on what number of tokens of Ether can exist, however a current extrade to the manner transactions are tested from evidence of labor to evidence of stake need to lower the deliver of Ethereum over time.)

Even so, non-fungible tokens will be an essential technological improvement. In a brand new virtual technology that blurs the traces among the bodily and digital worlds, a brand new manner to song virtual asset possession and distribution on-line may be an increasing number of essential. These blockchain-primarily based totally tokens can also disrupt monetary intermediaries and decrease the value of purchasing and promoting big-price price tag gadgets including vehicles and actual estate. That does not always suggest you need to spend money on extraordinarily speculative NFTs, however, on the very least, their improvement is really well worth preserving an eye fixed on.

CHALLENGES:

Here we are able to describe the demanding situations or the pitfalls that the NFT surroundings faces, those are the obstacles that must be conquer to develop further. These demanding situations variety over numerous eldest and are defined below.

High fueloline charge - This is the charge that the customers must pay on any transactions that they make on a blockchain network, the fueloline charge will increase with the better congestion withinside the network, which poses a first-rate trouble for the NFT exchanges, because it turns into now no longer viable to mint a group of NFT. This price is charged as each transaction associated with the blockchain calls for computation and garage sources.

Art Theft - This is a huge pitfall of the NFT surroundings as any person ought to thieve a person else's art work that hasn't been posted at the blockchain but and flip it into an NFT to assert its ownership.

Processing time - Whenever minting or replacing NFTs transactions undergo the clever settlement which entails interplay with the blockchain, which presently has a low transaction according to second, making the processing time eating and a terrible person experience. Some of the brand new Proof of Stake (PoS) blockchains like Algor and feature Fixed this difficulty to pretty an extent, however there may be a protracted manner to go.

Anonymity - Currently maximum of the NFT initiatives are primarily based totally on Ethereum, Flow, and Tezos which do now no longer offer overall anonymity to their customers. They offer pseudo-anonymity, wherein each transaction of each pockets deal with is seen to anyone, such as the pockets balances. This statistics may be utilized by terrible actors which includes hackers to get get right of entry to to a number of those wallets. Though answers like zero-information proofs, multi-birthday birthday celebration signatures are

already developed, however they haven't been applied on maximum of those blockchains.

Carbon footprint - We stay in a time wherein environmental effect and power disaster are a number of the largest issues that our planet faces. In this type of scenario the usage of computational sources to stable our virtual artwork isn't visible as an crucial difficulty and it is even condemned for growing the carbon footprint.

Legal issues - It has been determined that the various NFT exchanges do now no longer have a KYC (understand your customer) policy. As it entails buying and selling commodities or even cross-border transactions, it's miles crucial to understand the regulatory stance of a rustic earlier than making an investment any sum of money withinside the space. Also, as of now the income of NFTs aren't taken into consideration as a taxable event, this will provide upward push to massive sums of Financial scams withinside the system. Hence governments need to take into account regulating and taxing to shield its residents from any ability danger.

OPPORTUNITIES:

NFTs has ability to update the conventional financial system. In order to undertake this section of NFTs it should first evolve and receive a stable community of foreign money exchange. According to the findings of the existing study, if crypto currencies are withinside the shape of Lakshmi Coin then the society may be stimulated to make traders adapt progressively on the way to in flip pave a manner in the direction of speedy development in utilization of NFTs. This will assist India to attain to the subsequent platform of E-commerce. Indians are to be benefited through Bitcoin, however it is able to now no longer be the equal for the country because the whole.

LIMITATIONS:

NFTs are interesting, there's no question approximately it. But there are a few extreme drawbacks to sinking your cash into them. Some of the maximum huge drawbacks include:

1. Physical Art Can't Be Digitized

The motives to very own bodily artwork and the motives to very own virtual artwork are regularly different. You can't digitize bodily artwork. There's an appeal to seeing a one-of-a-type portray together along with your very own eyes that those tokens in reality can't provide.

2. Uncertain Value

Even for experts, NFTs are puzzling belongings. When you buy this type of non-fungibles, you're now no longer always buying the copyright to the artwork.

People are nonetheless capable of locate copies at the Internet of the artwork for that you very own the token, and there's not anything preventing them from copying and pasting those documents on social media, basically displaying off and sharing what you can have paid hundreds of thousands of bucks for.

Essentially, while you purchase those belongings, all you absolutely very own is a document announcing you very own the token in the back of the unique asset. The actual query right here is, "How lots cost is there in proudly owning an asset you don't honestly control? "Depending on how creditors solution this query withinside the future, people who invested all that scratch into those tokens can be left keeping a virtual document that's now no longer really well worth lots.

3. Environmental Cost

The surroundings is a warm subject matter of discussion as of late. Any document entered into the Ethereum blockchain takes huge computing, which calls for the usage of huge quantities of electricity.

So, great buying and selling in NFTs and different blockchain-primarily based totally belongings isn't always an environmentally pleasant process.

In fact, a latest Cambridge University observe indicates pretty much the entirety having to do with the blockchain is especially unsustainable from an environmental perspective due to the quantity of electricity used.

CONCLUSION

To conclude, non-fungible token (NFT) is an thrilling era withinside the blockchain atmosphere. We mentioned a way to create an NFT and the mechanics which paintings withinside the background, just like the blockchain, clever contracts, web3 wallets, and token standards. Further, we additionally mentioned the country of protection withinside the space, the capability vulnerabilities, the capability use instances which could remodel industries, and the obstacles which could preclude the progress. Lastly, we analyzed the have an effect on that the extrade in expenses of Ethereum and bitcoin will have at the NFT atmosphere as a whole. Overall, we are able to correctly say that NFTs are a nascent asset magnificence that has the capability to grow to be an

uncorrelated asset magnificence withinside the future, while it matures, that's a pretty perfect component for buyers who are

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ARTIFICIAL INTELLIGENCE BASED AUTONOMOUS (DRIVERLESS) VEHICLE

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ABSTRACT

In this paper we will cover the transformation of normal conventional(Manual) cars into the driverless car. We will see the problems which faced while working on this technology, objectives, requirements for the same and required outcome. Here we have also cover the standards & significant comparison between conventional and driverless cars. Driverless driving is trying to avoid road traffic, avoid pollution, specially accidents and overcrowding. Carmakers and researchers have been working on driverless driving for years and large amount of evolution has been made. This AI base car will cause a huge diversity in human's life. we will research and analyze the various impacts on society, legal and ethical challenges, and most importantly environmental constraints. We will also research on the previous similar technologies and take a look the way researchers are working to make this technology even better in the future.

Keywords: Driverless car, Smart car, AI car, Co-operative driving, Traffic efficiency, Vehicle automation impacts.

INTRODUCTION:

As we know we are learning and progressing day by day in this world. As same the researchers and the scientist are searching and build something to decrease the human hard work. Scientist and researchers are always struggling to take humans life more condensed and comfortable. Peoples are quite excited when launching the driverless cars. Because they have so many `question in their mind. How it will work? Is it safe? Is it work like normal driver car? etc. This driverless car is save the environment and surroundings by using the advance AI technology which is build in this driverless car. In other word, these driverless cars are outfitted and installed with 'special sensors', 'processors' and 'a different database'. which is liable for the maneuver and performance of this car and it doesn't necessitate any driver to maneuver. It navigates itself with following destination point requested by users. it makes the huge uprising in the field of robotics, which is help to causative a lot to make this planet a safer place.

This car propose is based on the various areas of engineering which includes electrical, mechanical, computer sciences etc [1]. Major progressed is on track when the Mercedes Benz has launched the vision-guided car in 1980. After this innovation they are more focused on RADAR and GPS technologies. After that they developed the power-steering and auto gear features which reduced the human efforts while driving a car. Now they are research is going on the produce the driverless car which will be more safer, comfortable, proficient and trustworthy for the users.

The Road accidents are one of the major cause of human deaths. According to the statement 4000 peoples are died daily because of road accident. If we not taking any major action on this then it will be increased upto 2.5 millions in year. Re-searcher think how to reduced this numbers and how to save the humans life. The driverless cars can reduced this numbers because the driverless car is equipped with sensors, GPS sensors which is analyze the data surrounding of the car and take decision according to it. These types of driverless cars are more reliable as compare to the conventional cars. These driverless cars sense and controlled the vehicle speed, follow the traffic rules, sense the road, keeping safer distance between two vehicles.

The Historical Aspects:

Houdini who has invented the radio control car in 1926. It has the one antenna which can transmit the signals or command which came from another car following it. This car has the motor which is work according to the instructions. which is given by the operator. In 1958 scientist Nebraska improve this concept at what time they laid track down under the highways which were a resource of recognition for the driverless car about the availability or detection of car and even conduct it for steering control, acceleration and break. [2]

In 1960 UK has test the driverless car, which was worked on basis of magnetic-cables that were laid inside the roads. They tested this car at the velocity of 130 Km/h which gives more effective performance as compare to the human control [3]. Since in 1980s Germany has succeed in designing of Mercedes-Benz (Robotic car) which is totally based on the vision-guided and it was go up to the speed of 63 Km/h without interchange.

The best and improve knowledge in this field was introduced by "US" when they was launch driverless land vehicle, where they were based on the computer vision & based on the LINDR and driverless control. Mercedes-Benz driverless car designed by

Discmans covered almost 1,590 km from "Germany-to-Denmark" by using the special computer vision, microcontrollers & circuit design. In Throughout the journey it was able to achieve the swiftness of 175 km/h, and it provide the good response in a heavy traffic to overtake the other car [4].

Self-Driving fully Automated:
The main motive and target for those peoples. who are not able to drive the car or who are handicapped. For these kind of peoples travelling and driving a car is a challenge. This driverless car is more beneficial for these kind of peoples. Life will be more easier and comfortable by using this driverless concept car. Google is quite confident to launch this car program at 2018 [5].

CISCO survey report for autonomous vehicle
CISCO has been done the survey of those peoples which are comfortable and confident for this kind of autonomous car after sitting this driverless car. They share their positive thoughts about this concept. It included around 1500 peoples from 10 different countries [6].

Philosophical concept of Autonomous Cars:
The main motive for adopting this technology of driverless car goes to the several functionalities that are not attainable by the humans itself. This AI based car can determine its neighboring environment with effectiveness. There are a number of plans on the market that helps to achieve that which specifically includes laser rangefinder, [LADAR], [RADAR] etc. So, this AI-based technology is relying on number of sensors for performing operation. Another key functionality of driverless car is its potential of planning the ultimate motion which makes it far more truthful.

When the whole lot is ready for planning, location and map-reading, it uses the concept of vision-based lane analysis i.e. 2D, 3D, straight or twisted. But point to be noted, the accomplishment of these cars is only done on the well-organised roads, on the other hand there requires lot more upgrading to make it friendlier to be used on the unstructured or shapeless or you can says off roads. 'Overtaking is one of the biggest reason of road accidents around the whole World' [7]. One of the major concern of these cars to espouse the safer procedure to perform overtaking safely, so for that reason there are number of different sensors and stereo cameras where they detect, notice and sence the car ahead and the distance, linked it to the speed of the car itself and by performing other observation through sensors it carries out the position to pass the other car.

Challenges involved with Autonomous Cars:
Following are some of the key issues related with the driverless cars:

Cost:
Various cars manufacturers had to spend a huge amount of money for designing these self-directed vehicles. The example "Google" was paying around '$80,000' for one of their AV model, which is totally too much expensive by the ordinary company or the person. According to the future predictions, it is expected that this price will come down to the half, which is still more to be afforded. [5].

Replacing Conventional Cars:
This is one of the biggest challenges which is being faced by the experts, replacing old conventional car would be required to increase the effectiveness of the autonomous cars. If the old cars are removed or exchanged under the same platform then this may lead to unpredictable outcome for the autonomous car and compromises the safety measures during its interface with the other cars [8].

Security Concerns:
Security and privacy are always being the biggest issue associated with the electronic system. Autonomous cars are based on the AI system, where it also requires a source of Internet for managing and information swap over, and this is the concession medium which can be abused by the hackers. The second major concern is the participation of 'terrorist activity' where this platform of driverless car can give Important and crowded place where they can carry out their suicide mission.

Ethical Issues with Driverless cars:
One of the major issues is the unemployment(Jobless) for the drivers. The execution will cause the replacing of all the manual actions of driving which mainly includes for taxis, trucking etc, and it is the source of ultimate

livelihood for millions of peoples around the World, and this source of earning would be in serious risk as the autonomous cars will take over all the driving system, and there will be no longer need of human drivers.

This will cause the conversion of the conventional car into the autonomous car very quickly. Meanwhile, this will cause a huge loss to the manufacturers of conventional cars. So, the thriving of autonomous cars is quite an unprincipled approach for the other companies based on the conventional cars.

Debating Issues:

Autonomous vehicles can be the best source for non-drivers or disable people to enjoy the ride in their own car without any driver, which is cost effective as well. But on the other hand, it is taking away the source of livelihood for millions of other peoples that are relying on driving.

CONCLUSION

The vision-guided autonomous car developed by the Mercedes Benz gave a new dimension to this technology and opened doors for the research work. According to Official report, there will be quite a large number of autonomous cars that will be launched by 2022, which will be partial as well the fully autonomous. [5] And by 2035 most of the car around will be autonomous according to the predictions. It is very important that automobile companies put all their effort to make it as secure as possible because any accident caused by these vehicles can disrupt all the industry. But indeed, this technology can play an integral part as the source of transportation for public and military, in the various search operation and use for accessing certain location which is rather a risk for the human drivers. This technology is still at its beginning, it might take a while for people to develop a trust for this technology and adopt it. A number of security threats and concerns are on the way, but it won't last forever.

ACKNOWLEDGEMENT

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NETWORK DEFENCE STRATEGY BASED ON HONEYPOT

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ABSTRACT

If you have ever wondered how the cyber security expert and IT firm go after the bad guys or try to analyse what they are going to do next. Then one way is something called a honeypot, you see in addition to security measures you might expect so just strengthen a computer network to keep out cyber criminals, the cyber experts use the honeypot to do the opposite, attract the bad guys. Honeypots are closely monitored decoys that are employed in a network to study the trail of hackers and to alert network administrators of possible intrusion. Honeypots provide a cost-effective solution to increase the security posture of any organization.

Keywords: Honeypot, Production Honeypot, Research Honeypot, High-interaction honeypots, Medium-interaction honeypots, Low-interaction honeypots, HoneyD, Honeynet, ManTrap, BackOfficer friendly, Specter.

INTRODUCTION

There are many security controls within an organization's environment. Every organisation with internet access will almost certainly have a firewall in place, which can eliminate a wide range of potential threats. However, hackers continue to find ways to gain access to an organization's environment. And although network segmentation can be put into place as well, that doesn't mean it's preventing security threats from getting access to systems. So, what a honeypot is designed to do id replicate a login page similar to other systems, such as finance, IT, business application and productivity. Now, when the attacker logs in – from a hacker on the internet who gains access to a corporate environment – or perhaps someone internally who is trying to access one of these systems – the honeypot will detect that activity and immediately send an alert to IT or an IT security team. Tis now provides visibility to that team, who can determine if someone is doing something malicious within organization's environment. And that's the value of a honeypot, a simple and useful way of strengthening your network.

Honeypots are now widely utilised by the research community to investigate challenges related to network security. Honeypots have several real-world applications; they serve as network decoy as mentioned earlier to prevent attacks on an organization's real networks by appearing to be easy targets. By tracking all activities on a honeypot such as viruses and worms so they can be more easily detected. Honeypots can also be used to prevent spam.

History:

The idea of honeypot began in 1991 with the publications "The Cuckoo's Egg" by Clifford Stoll. It was about his experience catching a computer hacker that was in his companies' network searching for secrets. It was the beginning of what became to known as honeypots. The first type of honeypot was released in 1997 called the deceptive toolkit, the point of this kit is to use deception to attack back. In 1998, the first commercial honeypot came out, this was called cyber cop sting. Honeypots are shared and used all over the world and this technology continues to improve and many honeypots used began to feel this is just the beginning and they are only going to get better. Looking beyond computers, the idea of honeypots has been around for decades. The principle behind them is simple, do not go looking for attackers, instead prepare something that would attract their interest aka the honeypot. Then wait for the attacker to show up, for example a cheese bait baited mousetrap is a classic example. Or say a neighbourhood that is been burglarized a lot, so if someone sets up a camera outside their home and leaves a bike outside for them to steal which will act as the honeypot.

There are two common questions that are often are brought up when discussing honeypots:

1. Is a honeypot just a computer?

2. How do honeypots work?

Well honeypots often are just computers, but they can also be other things in the form of data records, idle IP address space or files. They must be handles carefully as they are chances of hazards being carried out on the network. Hacker can make use of a honeypot to break into a system, hence it should always be walled off appropriately from the rest of the networks.

Regarding how it works, let's assume you are the CTO of a large bank, so you may want to setup a honeypot system that to the outside user looks as if it is a part of your banking network. Honeypots are generally based on a real server, a real OS, and with data that appears to be real. You would then setup extensive monitoring of these systems, networks, and software. So, you can better understand where the cyber criminals are coming from, how they operate, and what they want. More importantly you can determine which security measures you have in place are working and which one you need to improve.

Types of Honeypots:
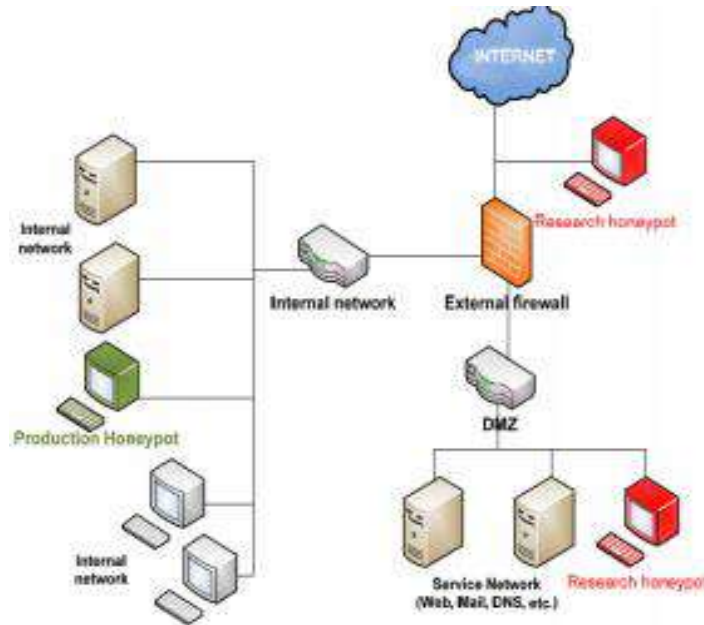
1. Production Honeypot

A production honeypot is the most frequent type of honeypot, and it's used to collect cybersecurity-related data within a company's or organization's production network. The production honeypot will sit and wait for an attack once it is set up. If an attack happens, data such as originating Internet Protocol (IP) addresses, traffic frequency and volume, directory accessories, and more may be collected.

Honeypots for production are popular among businesses because they are simple to operate while exposing vital information about cyber threats and vulnerabilities that their networks face. Production honeypots, on the other hand, don't provide nearly as much information as their research counterparts.

2. Research Honeypot

A research honeypot, on the other hand, is a type of honeypot designed to gather data about the precise methods and tactics employed by hackers. They're similar to production honeypots in that they include fictitious data that appears sensitive and lucrative to hackers. Honeypots for research also collect data on assaults and vulnerabilities.

Businesses don't usually use research honeypots. Government and scientific institutions, on the other hand, make use of them. That's the main difference between them and production honeypots. While production honeypots are deployed within a company's network, research honeypots are often deployed across different networks or locations.

Research honeypots are also more complicated than production honeypots. As a result, their deployment necessitates greater effort. Research honeypots, on the other hand, provide more information regarding threats and vulnerabilities due to their sophistication.

3. Other types of Honeypots

While most honeypots fall into one of two categories: production or honeypot, there are other honeypot subtypes.

- High-interaction honeypots

- Medium-interaction honeypots

- Low-interaction honeypots

Honeypots with a lot of interactions are more complicated and challenging to implement in real-time systems. They enable attackers to engage with real-time applications or systems while simultaneously capturing data for behaviour analysis.
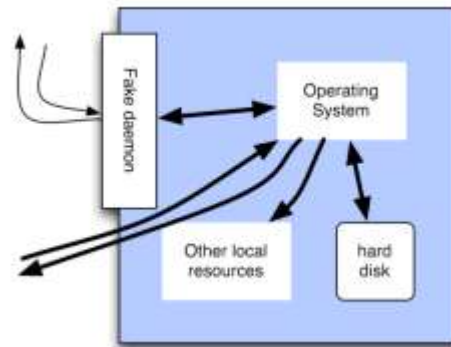
When compared to low interaction honeypots, a medium interaction honeypot collects more information about attacks. It allows the attacker to interact with the honeypot in a more direct manner. It puts the attacker one step ahead by allowing the honeypot to respond to specific commands using pre-programmed messages.
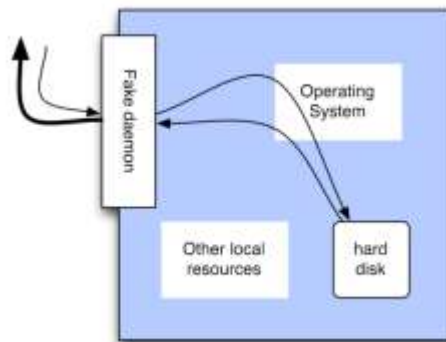
Because of their simple design and fundamental functionality, low-interaction honeypots are relatively straightforward to install, configure, deploy, and manage. A honeypot with reduced interaction allows for limited communication between the honeypot and the attacker. Because of their simple design and basic functionality, they are straightforward to instal, configure, deploy, and manage.
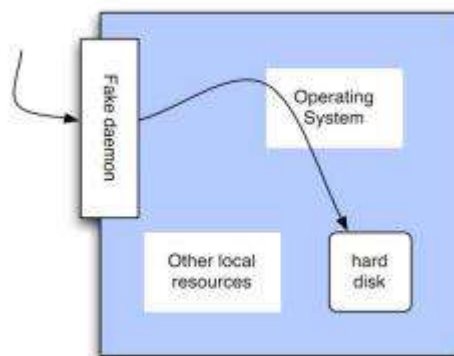
Benefits:
- Honeypot detects few false positive and false negative data also.
- Cost effectiveness: Honeypots are low-cost devices that exclusively catch negative behaviour.
- Encryption circumvention
- Honeypot collects a limited quantity of data. That is, instead of capturing data in GB, it only captures 1 MB per day.
- People who target the honeypot are the blackhats as they only know about it not the common people

- Honeypots are made to catch anything that is thrown at them, including new tools or strategies that have never been seen before.

- Honeypots have the ability to capture detailed data that few, if any, other technology can match.

- Honeypots are quite basic in principle. There are no complicated algorithms to generate state tables or signatures to maintain. As a result, there will be less errors or misconfigurations.

Risk:
- Limited data for analysis: Only activity that directly interacts with honeypots can be tracked and captured. Honeypots won't catch attacks on other systems unless the attacker or threat interacts with them as well.

- Distinguishable from legitimate system: an experienced hacker can avoid them.

- Puts production system at risk: given that honeypots eventually do connect back to the real system.

- Honeypots are vulnerable to being hijacked by the bad guys and used to attack other systems. Depending on the sort of honeypot, it may pose no greater danger than an IDS sensor, or it may pose a significant risk.

- Requires specialized skills to implement and operate: hence it can be costly.

Different Honeypot systems:

i. HoneyD
HoneyD is a programme that allows you to create numerous virtual honeypots on a single machine, each with its own set of features and services. HoneyD is typically associated with a low amount of interaction. It is primarily intended to be used as a production honeypot for identifying malicious activities. We may build up a honeypot with any personality and any service, such as HTTP, SMTP, or SSH, using HoneyD. When HoneyD receives a connection or request for a system that does not exist, it assumes that the request is a forgery or an assault.

ii. HoneyNet
Honeynets are a type of network that represents a high amount of interaction within a tightly controlled environment. Instead of giving the attacker access to the entire operating system for attack and interaction, it provides several honeypots. Honeynet's value is being investigated, attacked, or compromised, and as a result, it has become a honeypot.

The highly controlled network will capture all attacker behaviours that occur in the honeynet and reduce the security risk associated with such activities. Honeynet works in the same way as a Honeypot. Any request submitted to honeynet is suspect; it's most likely a probe or an attack, and everything sent from a honeynet implies that it's been conciliated when an attacker or tool is conducting an activity.

iii. ManTrap
ManTrap can create a virtual minefield through which an internal attacker must successfully navigate to reach his target. The attacker is exposed with just one wrong step. ManTrap is Recourse Technologies' first high-interaction commercial honeypot, which is now known as Decoy Server.

ManTrap is more powerful and unique in that it is intended to be attacked as well as compromised. It establishes a highly controlled operating environment with which an attacker can interact. It creates a fully functional operating system with virtual cages instead of limited operating systems. Because the cages are from logically controlled environments, the attacker is unable to exit and also unable to attack the host system.

iv. Back officer friendly
BackOfficer friendly, also known as BOF, is extremely simple to instal, configure, and maintain. Because of its simplicity, it is one of the best tools available today. BackOfficer Friendly is depicted as a honeypot with low interaction.

This ease of use comes at a cost, as it has extremely limited capabilities.It has a small set of services, and whenever a hacker tries to connect to one of them, BackOfficer Friendly listens on that port, generates an alert, and closes the transaction. It records the attacker's IP address as well as the operations he attempts. None of the services emulate a specific application or version, only the service's functionality.

v. Specter
Specter is a commercially supported honeypot that is useful for detection. Specter, like BOF, is a low-interaction, primarily production honeypot with more functionality and capabilities. Instead of just emulating

more services, it can also emulate different operating systems and vulnerabilities. It also has powerful alerting and logging features.

Specter is simple to deploy, maintain, and is low risk because it emulates limited interaction services. When compared to high-interaction and medium-interaction honeypots, it can only gather a limited amount of information. It has the same limitation as BOF in that it cannot listen on or monitor a port that is already in use by another application.

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A STUDY ON CHALLENGES AND FUTURE OF EDUCATION AFTER COVID-19

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[3]Satish Pradhan Dnyanasadhana College , Thane

ABSTRACT:
This research paper includes a detailed study of challenges in online study and advantages or disadvantages in online studies V/s offline study. This paper talks about the Education in post COVID era. We research on how will the education system will proceed in future? And how the children are effective picking up there studies in online mode? What educational challenges were faced by the students while attending online.

Keywords:- online V/s offline learning, challenges, post COVID era, effectiveness of learning

INTRODUCTION:-

We never thought of any situation like the pandemic situation of COVID. The time was very hard for everyone but somehow everyone tried to conquer the situation successfully. Many alternative were used to carry on their daily routine works.Everyone started using available online sources.

Specially it was really hard to our nation builder i.e. our teachers to teach their students online because for some concepts are quite difficult to teach online. For example Maths concepts. A secondary or higher secondary student may ask his or her teacher if he or she raises with any doubt .If any concept is not clear or misunderstanded any concept can thread one's career and eventually the nation.

We must have seen or heard that some students are sleeping keeping their online class on or some students are busy doing their own work or they are busy on social media so students are less concentrated or not serious about their online learning

OBJECTIVES:-

1. To know to know the preferences and understanding of the students.

2. To study the behaviour of students towards online mode.

3. To know which learning mode is effective and efficient for learning and building a better career.

4. To learn what challenges were faced by children during online classes.

5. To compare the seriousness of students towards online or offline learning modes

REVIEW OF LITERATURE:-

https://onlinelibrary.wiley.com/doi/10.1002/hbe2.300

Mohd. Imran Siddiquei,Shashank Kathpal

The Method of learning is shifted to online learning process due to covid-19 pandemic. In this situation many of students and teachers are forced to use online learning tools. They also stated that teaching online is more beneficial in this pandemic situation. However,the network problem becomes the main problem while learning of online the quality of internet networking is very beneficial on the success of the online method.

https://www.oecd.org/coronavirus/policy-responses/the-impact-of-covid-19-on-student-equity-and-inclusion-supporting-vulnerable-students-during-school-closures-and-school-re-openings-d593b5c8/

Lucie Cerna

The students team work, performance level will decreased due to online study students can not get satisfaction in online study because they do not able to do some activities.

However, They explain the impact of Covide-19 on students Equity.

DATA COLLECTION PROCESS:-
Primary data collection:-

1. Through questionnaires

2. Through virtual interviews

Secondary data collection:-

1. Searching on Google

2. Reading Research journal
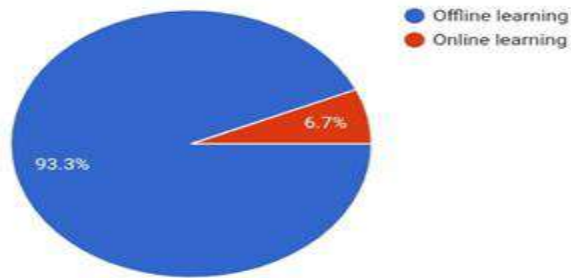
3. Newspaper

RESEARCH METHODOLOGY:-
Sampling method-Simple random sampling

Sample size-   30

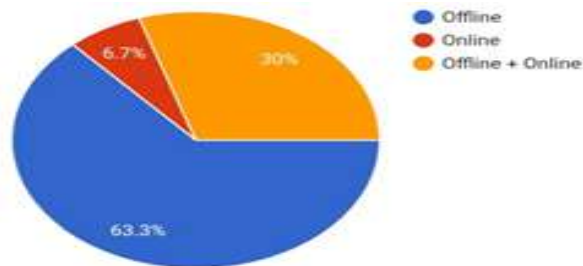Method of data collection -Primary data collection Method

Primary data collection -Pre- structured questionnaire
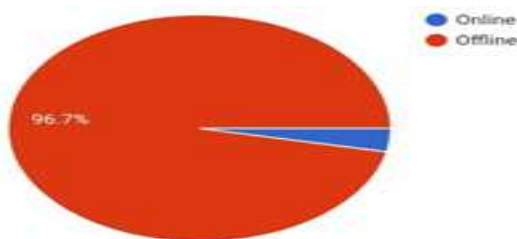

DATA ANALYSIS AND INTERPRETATION:-
Analysis :- The above pie chart shows preference towards offline learning is more than online

Interpretation:- we can interpret that more effective and efficient learning is through offline

Analysis:- The above pie chart shows the expectation of students in post COVID era. Offline class is most expected and also offline +online.

Interpretation:- From this we can interpret that the post COVID era may be online +offline mode.

Analysis:- The above pie chart shows the more interactive process of learning that is offline.

Interpretation:- According to respondents it is interpreted that offline mode is more interactive and responsive
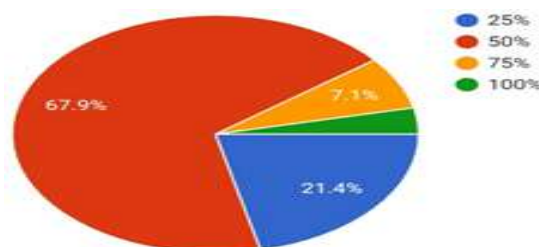
Analysis:- The above pie chart shows satisfaction of respondents during the online lectures

Interpretation:- The respondents are 50% satisfied with the online learning mode

HYPOTHESIS:-

H0:- Online or offline learning process is not the part of effective learning process

H1:- Online or offline learning process is the part of effective learning process

FINDING AND CONCLUSION:-

Through the research we find out that some students face challenges for attending online mode. Some students were unable to attend online classes due to poverty they do not have any device through which they can attend their online lectures or any other source of learning. In some houses there are two or more child but due to single device and the mismatch of timing, One has to be absent for the day. While conducting the research we also get to know that some students about 18 were quitting their studies because of poverty to earn. Due to less interaction between instructor and students the education system is getting loose students have lost their by hearting power.

Offline lectures are more interactive and responsive. A small screen cluttered with few small faces neither students nor teachers can be sure if everything concept is understood to the student. For primary level it's very difficult to absorb all the Mathematical and Grammatical concepts. Even in degree for science students online lab for practical couldn't be provided and for science students the lengthy sums could not be explained on a small screen.

From this basis we can conclude that the best way of teaching or learning is offline and online learning can be taken as an aid for learning. So the post COVID era may be online with the aid of offline.

SAMPLE COPY OF QUESTIONNAIRE:-

Questionnaire

Hello,

We are Tapasya Vinod Pahurkar and Shreya Chandrakant Manvi writing a research paper on

Topic:-

A study on challenges and Future of education after COVID 19

For

NATIONAL LEVEL MULTI-DISCIPLINARY Online Student Research Convention

on the Theme 🔵

*"Economic, Ecological and Entrepreneurial Innovations and Development in Post Pandemic Era: Issues, Challenges and Prospects

In S.M. Shetty college, Powai

Requesting you to spend your 5min to fill our questionnaire

Thank you,

Tapasya Vinod Pahurkar

Shreya Chandrakant Manvi

*Required

Personal details

1. Name *

_____

2. Gender *

Mark only one oval.

⬭ Male

⬭ Female

3. Age *

   Mark only one oval.

   - Below 18
   - 18 - 25
   - 25-30
   - 30 above

4. Who are you ? *

   Mark only one oval.

   - Primary school students
   - Secondary school students
   - Junior college students
   - Senior college students
   - Professionals

Questionnaire

This questionnaire is like a small interview to collect the views and our data

5. Which learning mode will you prefer for most effective leaning? *

   Mark only one oval.

   - Offline learning
   - Online learning

6. Which learning mode you are expecting after COVID 19? *

   Mark only one oval.

   - Offline
   - Online
   - Offline + Online

7. Do you think online or offline doesn't matter in learning process? *

   Mark only one oval.

   - Yes
   - No
   - Maybe

8. What challenges do you faced regarding online learning mode? (Ex. Any health issues or study related challenges can be described) *

   _____

   _____

   _____

   _____

9. Which learning mode is more interactive or understandable? *

   Mark only one oval.

   - Online
   - Offline

10. Why do you feel online learning is more effective than offline? (Precise answer)

_____

_____

_____

_____

11. How much you were satisfied with online learning during pandemic? *

Mark only one oval.

◯ 25%

◯ 50%

◯ 75%

◯ 100%

12. Why do you feel offline learning is more effective than online?(Precise answer)

_____

_____

_____

_____

_____

13. During pandemic which educational challenge did most of the students faced ? *

Tick all that apply.

☐ Not able to take education due to poverty

☐ Has quit studies for earning

☐ Faced problem in understanding the concepts online

Other: ☐ _____

14. Did you know any scheme started for education during pandemic. Name any 1-2 scheme? *

_____

ROLE OF INFORMATION TECHNOLOGY IN INDIAN BANKING SECTOR

[1]Ms. Avneet Kaur and [2]Mr. Sushant R. Shetty

[1]Assistant Professor and [2]TYBBI Student, S.M. Shetty College, Powai

ABSTRACT

In the old days, banking used to be a time-consuming activity. In today's world, IT-based and digital banking have fundamentally transformed the way we bank. You can now transact with more speed, ease, and convenience thanks to the arrival of information technology. A laptop, tablet, or smartphone can be used to do computerized banking.

We intend to conduct an exploratory study in order to assess the current and future scope of information technology's role in the Indian banking sector. Primary data will be gathered using questionnaires, while secondary data will be gathered from research articles, journals, and websites.

Keywords: Information technology, MICR,CTS, ECS, EFT, RTGS ,CBS, Digitalization.

INTRODUCTION

The banking industry is the backbone of the Indian financial system, and it is hampered by numerous challenges. One such force is the information technology revolution. Technology support is critical for the banking sector's successful operation in today's world. We cannot imagine the banking industry's prosperity without IT and communication; it has expanded the banking sector's role in the Indian economy. Technology plays a critical role in developing an efficient financial system that can adapt properly to the needs of a growing economy. Information technology in the banking business refers to the use of advanced information and communication technologies, as well as computer science, to help banks provide better services to their customers in a secure, reliable, and cost-effective manner, and to maintain a competitive advantage over other banks. The financial sector recognizes the importance of technology since it provides banks with a competitive advantage through improved customer service. The banking industry plays a critical role in the development of the Indian economy. Penetration, production, and efficiency have all increased as a result of the usage of technology. It has not only improved cost-effectiveness but has also aided in the viability of low-value transactions. In India, the shift from "traditional banking to convenience banking" has been significant. They are now rapidly preparing for 'digital banking.' In the late 1980s, the Indian banking sector recognized the need for computerization in order to improve customer service, bookkeeping, and MIS reporting. The Reserve Bank of India established a Committee on Computerization in Banks in 1988, which was led by Dr. C. Rangarajan. Banks first began employing information technology with the development of stand-alone PCs, then progressed to LAN connectivity. Banks began to use the Core Banking platform as technology advanced. As a result, branch banking gave way to bank banking. As a promising move toward boosting consumer convenience through Anywhere and Anytime Banking, Core Banking Solution (CBS) enabled banks to increase the comfort feature for customers. Finacle by Infosys, BaNCS by TCS, and FLEXCUBE by i-flex are some of the most prominent Core Banking solutions. With the liberalization of the economy in 1991-92, the computerization process accelerated. Rising competition from private and foreign banks was a major cause of this transformation. To stay competitive and relevant in the race, a number of commercial banks have begun to move toward digital consumer services.

The adoption of emerging technologies has benefited banks in a number of ways. E-banking has resulted in significant cost savings and has assisted in the generation of revenue through a variety of channels. According to the most recent data, the cost of a bank transaction on Branch Banking is projected to be in the range of Rs.70 to Rs.75, while ATM transactions cost roughly Rs.15 to Rs.16, Online Banking costs Rs.2 or less, and Mobile Banking costs Rs.1 or less. Because of the convenience of 'Anywhere Banking,' the number of customers has increased as well. Human error has decreased thanks to digitization. Data can be accessed and analyzed at any moment, allowing for a powerful reporting system. The Reserve Bank of India (RBI) has acted as a guide for banks in formulating regulations and providing direction to achieve various objectives. With the introduction of MICR-based cheque processing, Electronic Funds Transfer, Inter-connectivity among bank Branches, and the implementation of ATM (Automated Teller Machine) Channel, commercial banks in India have moved towards technology by way of Bank Mechanization and Automation, resulting in the convenience of Anytime banking. The Reserve Bank of India has taken significant steps to improve the payment and settlement processes in banks.

Technological Milestones in Indian Banks

➢ MICR (Magnetic Ink Character Recognition)

MICR was implemented between 1986 and 1988. The banking industry primarily used MICR technology to speed up the processing of checks and develop the routing number and account number at the bottom of a cheque. This allowed computers to read information from printed certificates, such as account numbers.

➢ Computerization of government business

Since the late 1990s, all branches of government have been using technology to accomplish their tasks in order to facilitate the computerization of government activity.

➢ Commencement of Certification Authority(CA)

With the establishment of Certification Authority (CA) duties under the Information Technology Act of 2000, IDRBT ensured that e-banking transactions would have the necessary legal protection.

➢ IDRBT (Institute for Development & Research in Banking Technology)

RBI organized a committee in Hyderabad in 1996 to modernize payment system technology. As a result of the committee's recommendation, IDRBT was founded.

➢ IS AUDIT (information systems audit)

The motive is to determine the design and effectiveness of a system's internal controls, which includes security mechanisms. To ensure IS audit in banks, guidelines were created and distributed.

➢ ATM"s (AUTOMATED TELLER MACHINES)

Enabling IT channels that improve bank customer service in areas like cash distribution through card-based transaction settlements, Automated Teller Machines (ATMs), and so on.

➢ E-BANKING (INTERNET BANKING)

E-Banking allows customers of financial institutions to perform safe financial transactions on a website. In order to have personal access to the internet, a customer should register with the institution and a password will be set up for customer verification.

➢ RTGS (REAL TIME GROSS SETTLEMENT)

It is a fund transfer mechanism in which money is moved on a gross and real-time basis from one bank to another. The settlement is in "real-time" as there is no waiting period for a payment transaction. Settlement of transactions on a one-to-one basis without clustering or meshing with other transactions is referred to as "gross" settlement.

The Current State of Affairs In The Digital Space:

The Indian government is encouraging digital transactions vigorously. The National Payments Corporation of India (NPCI) has launched United Payments Interface (UPI) and Bharat Interface for Money (BHIM), which are significant leaps forward in the Payment Systems industry. UPI is a smartphone application that allows people to transfer money across accounts in different banks quickly by entering a virtual address rather than the bank account number. Today's banks strive to give their consumers a quick, accurate, and high-quality banking experience. Digitization is currently the main priority for all Indian banks. A report from the Reserve Bank of Indian says that in 2016-17, there were 2,22,475 automated teller machines (ATMs) and 25,29,141 point-of-sale devices (POS). Electronic payment systems including NEFT (National Electronic Fund Transfer), ECS (Electronic Clearing Service), RTGS (Real Time Gross Settlement), Cheque Truncation System, Mobile Banking, Debit cards, Credit Cards, and Prepaid cards have all achieved widespread adoption in Indian banks. These are all significant milestones in the banking industry's digital transformation. Online banking has revolutionized the face of banking and resulted in significant changes in banking operations. NEFT (National Electronic Funds Transfer) is the most widely utilized electronic payment system in India for moving money from one bank to another. It works in half-hour intervals.For high-value, "real-time" transactions, the Real-Time Gross Settlement (RTGS) method is frequently employed. Rupees Two Lakhs is the minimum amount that may be sent via RTGS. There is no limit to what you can do. The National Payments Corporation of India's Immediate Payment Service (IMPS) is a 24-hour electronic payments transfer system (NPCI). In recent years, the use of prepaid payment instruments (PPIs) for purchases and financial transfers has expanded significantly. PPI Cards (which include mobile prepaid instruments, gift cards, overseas travel cards, and corporate cards) and

mobile wallet transactions have increased dramatically from Rs.105 billion and Rs. 82 billion in 2014-15 to Rs. 277 billion and Rs. 532 billion in 2016-17.

Transformation of Banking System In India

Over the last decade, Indian banking has seen a complete makeover. It's been a miracle to go from a manual, scale-constrained environment to a technologically leading position. Such a change occurs in such a short period of time and at such a minimal cost. The introduction of technology into the Indian banking industry dates back to the 1990s when the banking sector underwent numerous deregulation measures. One of the main goals of the Indian banking sector reforms was to promote operational self-sufficiency, flexibility, and competitiveness in the system, as well as to bring Indian banking standards up to international norms. With the relaxation of license requirements, numerous private and international banks with cutting-edge technology have arisen. Deregulation has given banks new avenues to diversify their revenue streams, such as investment banking, insurance, credit cards, mortgage financing, and depository services. Banking's position has been changed from that of a financial supermarket-style service provider that offers a wide range of financial services under one roof.

Impact of Information Technology on banks:

The most evident impact of technology may be seen in how banks respond strategically in order to make optimal use of it for efficient service delivery. The following is a summary of the impact on service quality:

Impact on Banking System:

Traditional banking is gradually giving way to relationship banking in the banking industry. The bank's contact with its customers has traditionally been one-to-one through the branch network. Clearing and decision-making tasks were focused at the branch level when this was implemented. The head office was responsible for the overall clearing network, the branch network's size, and the branch network's employee training. The bank kept a record of the performance of the company and set decision-making rules, but branch staff and customers only had access to information from a single geographic location.
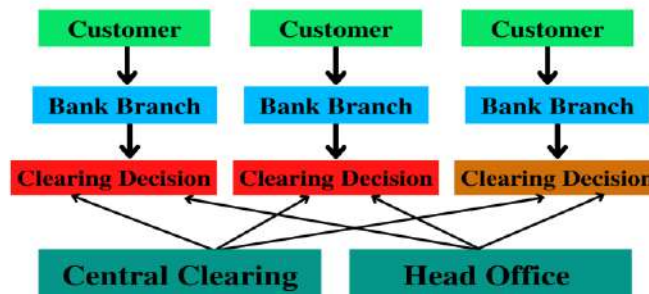

The modern banking system can no longer rely solely on its branch network. Customers are increasingly expecting innovative, more efficient delivery systems, and services like Internet banking serve a dual purpose for them. They offer standard banking services as well as considerably easier access to information about their accounts and the bank's many other services. To accomplish this, banks must develop account information layers that can be accessible by both bank employees and clients.

The utilization of interactive electronic links through the Internet could go a long way toward giving consumers more information about their personal financial status as well as the bank's services.
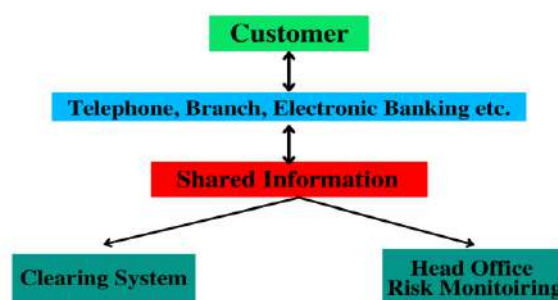
Impact on the Service Quality:
- Service is no longer just a marketing advantage for huge banks, due to automation. By integrating IT into their operations, small and relatively new banks with a minimal network of branches become better positioned to compete with established banks.

- Some financial services have become commoditized as a result of technological advancements. As a result, banks cannot take a long-term connection with their consumers for granted, and they must work hard to maintain that relationship and maintain customer loyalty.

- On the one hand, technology is a tremendous instrument for customer service, but it also leads to the depersonalization of banking services.

- Banks must automate regular client questions through self-service channels in order to cut service delivery costs. To do so, they must invest in contact centers, kiosks, ATMs, and Internet Banking. Customer-centric businesses today demand IT infrastructure that is linked with their business strategy.

Impact on Privacy and Confidentiality of Data:
Data that was formerly saved on computers is now shown as needed via internet banking, mobile banking, ATMs, and other means. As a result of this, challenges of data privacy and confidentiality have arisen:

- The computer's data processing skills, notably its high throughput, integration, and retrieval capabilities, have led to concerns among individuals about whether their privacy is being undermined.

- Everything appears to be in order as long as individual data pieces are only accessible to individuals directly involved, but the frequency with which data is cross-referenced to construct detailed individual dossiers raises privacy concerns.

- Customers are concerned about the banks' lack of privacy when it comes to their transactions, and they look at electronic methods with suspicion. However, apart from any constitutional aspects, many countries regard privacy as a human right and believe it is the responsibility of those involved in computer data processing to ensure that computer use does not evolve to the point where various data about people can be quickly collected, integrated, and retrieved. Another crucial role is to verify that the data is only utilized for the intended purpose.

ROLE OF INFORMATION TECHNOLOGY IN BANKS DURING COVID-19

In recent years, the implementation of innovative digital technologies in banking has increased significantly, and the global COVID-19 epidemic has expedited the usage of digital technology much more. This was due to a rise in online banking in traditional banks, not merely because of those who had to work from home or because of an increase in e-government and e-commerce. Banks had a difficult year in 2020. Not only did banks' revenue fall as a result of the economic slowdown, but they also had to adjust their operations and information technology solutions fast to comply with pandemic-related regulations. Banks had to increase the number of online self-service alternatives available to clients while also ensuring that new customer features were not compromised. Last but not least, banks required their clients to be adaptable to these developments. All of this was only feasible because information technology was present in the banking sector. Banks' use of information technology aided people in maintaining their life cycles and encouraged the use of no-contact banking. During the COVID-19 pandemic, information technology played a critical part in keeping the economy running and preventing the globe from collapsing.

OBJECTIVES OF THE STUDY:
1. To assess the use of information technology and its benefits in the Indian banking sector.

2. To determine whether the customers prefer traditional banking or IT-based banking.

3. To evaluate whether an IT-based banking system is a boon to the Indian banking system.

4. To study banking innovation and expansion after the implementation of information technology in the banking system.

5. To investigate how an IT-based banking system enabled in the defense against the covid-19 Virus.

SCOPE OF THE STUDY:
- This research focuses on the role of information technology in the banking sector and whether customers prefer IT-based banking systems over traditional banking systems.

- This research will aid in determining how the introduction of information technology in the banking sector helped its growth and survival.

- This study helps us understand how convenient and quick e-banking services are and how technological innovation and implementation have increased customer service, satisfaction and reduced costs in the banking sector of India.

- It also explains the risks and challenges involved in using an IT-based banking system.

- This research also explains how the computerized banking system has been a boon to the economy in the COVID-19 pandemic era.

- In addition to this, the respondents of this research were randomly selected from those who have a business, those who are serving organizations, and also students who are using various IT-based products and services, and what their opinions are regarding the digitized banking system

METHODOLOGY OF THE STUDY:
- Primary information has been collected through questionnaires administered on different respondents from Mumbai Region.

- Random sampling technique is adopted to collect information from 148 respondents

- Secondary data has been collected from research papers, e-journals and websites.

DATA ANALYSIS, INTERPRETATION, AND PRESENTATION
Profile of the respondents:

CLASSIFICATION OF RESPONDENTS ON THE BASIS OF AGE

SR.NO	AGE	NO. OF RESPONDENTS	PERCENTAGE
1.	18-25 years	117	79.1
2.	26-30 years	17	11.5
3.	31-35 years	6	4.1
4.	36 and above	8	5.4
	TOTAL	**148**	**100%**

Age Of The Respondent:

148 responses
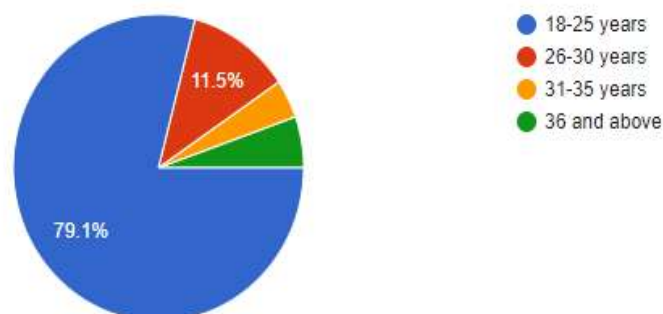
The age of a person helps to establish their level of knowledge, work experience, and exposure, all of which differ due to differing perspectives on various areas of the Computerization of Banking. The age profile characteristics were separated into six groups, ranging from 18 to 25, 26 to 30, 31 to 35, and 36 and up.

From the graph above, it can be seen that the majority of respondents are between the ages of 18 and 25, accounting for 79.1% of all respondents. As a result, it was possible to conclude that the majority of respondents come from the younger, more socially involved generation.

CLASSIFICATION OF RESPONDENTS ON THE BASIS OF GENDER

SR.NO	GENDER	NO. OF RESPONDENTS	PERCENTAGE
1.	Male	60	40.5%
2.	Female	88	59.5%
	TOTAL	**148**	**100%**

Gender Of The Respondent:

148 responses
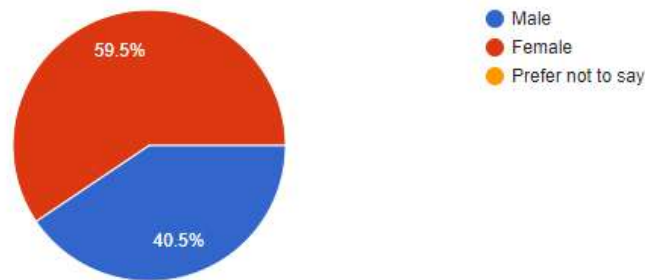
In this study, one of the profiles is the gender of the respondents. To learn about respondents perspective on Role of Information Technology in Indian Banking Sector

It can be seen from the pie chart that the number of female respondents is greater than the number of male respondents. Male respondents account for 60 of the total number of respondents, while female respondents account for 88.

CLASSIFICATION OF RESPONDENTS ON THE BASIS OF OCCUPATION

SR.NO	OCCUPATION	NO. OF RESPONDENTS	PERCENTAGE
1.	Student	111	75%
2.	Businessman	5	3.4%
3.	Govt. Employees	6	4.1%
4.	Private company employees	26	17.6%
	TOTAL	**148**	**100%**

Occupation Of The Respondent

148 responses
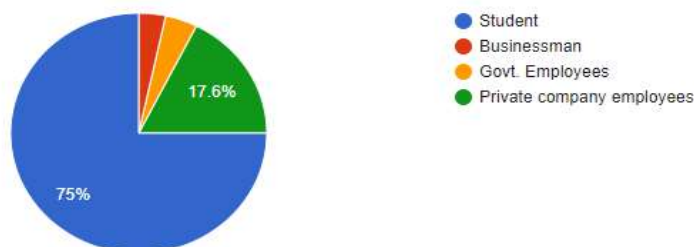
The occupation of the respondents is depicted in the pie chart above. This is a crucial factor in dividing the population into small groups and determining which group uses more IT-based banking goods and services.

The occupation graph has been separated into four categories:

Student, Businessman,Government employees, and Private Company Employees.

The majority of the respondents are students, accounting for 75% of the total respondents, followed by businessmen, who account for 3.4% of the total respondents, government employees, who account for 4.1% of the total respondents, and finally private company employees, who account for 17.6% of the total respondents.

CLASSIFICATION OF THE RESPONDENTS ON THE BASIS OF FREQUENCY OF USING ONLINE BANKING OR IT-BASED BANKING SERVICES

SR.NO	FREQUENCY OF USING IT-BASED BANKING SERVICES	NO. OF RESPONDENTS	PERCENTAGE
1.	Very Frequently	48	32.4%
2.	Frequently	73	49.3%
3.	Rarely	27	18.2%
	TOTAL	**148**	**100%**

How frequently do you use online banking or IT-based banking services?
148 responses
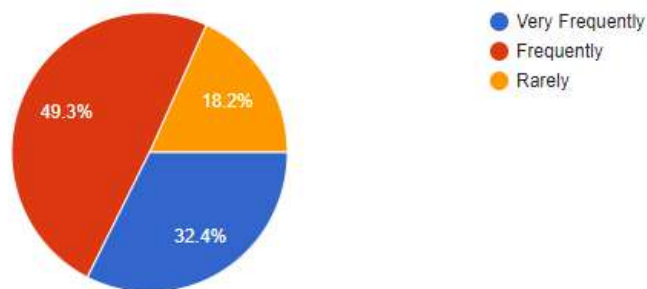
The graph depicts the respondents' segmentation based on how often they use online or IT-based banking services.The frequency graph is divided into three sections: Very frequently, frequently, and rarely. The frequency with which respondents engage in online or IT-based banking activities indicates how many individuals utilize IT-based banking services and how many have adopted the online banking method for conducting banking transactions. This would assist banks in determining the amount of customers who prefer digitized banking over traditional banking services. According to the research, the majority of the respondents fall into the frequent user category, accounting for 49.3 % respondents. Similarly, 32.4 percent of respondents use IT-based banking services Very Frequently, while the remaining respondents use IT-based banking services Rarely.

CLASSIFICATION OF RESPONDENTS BASED ON WHEN THEY FIRST STARTED USING ONLINE BANKING

SR.NO	Years	NO. OF RESPONDENTS	PERCENTAGE
1.	1998-2004	4	2.7%
2.	2004-2010	8	5.4%
3.	2010-2016	26	17.6%
4.	2016-2022	110	74.3%
	TOTAL	**148**	**100%**

When did you first start using online banking?

148 responses
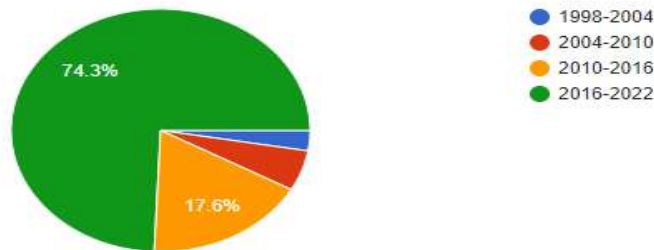
The pie chart above signifies the year that respondents began using IT-based banking services. The years were classified in four groups: Years- 1998-2004, 2005-2010, 2011-2016, and 2017-2022.

It can be seen that 110 of the 148 respondents began using online banking products and services between 2016 and 2022, followed by 26 respondents who began using it between 2010 and 2016. Whereas 8 respondents started using online banking services between 2004 and 2010, and perhaps another 4 respondents began using it from 1998 to 2004.

CLASSIFICATION BASED ON IT-BASED BANKING SERVICES USED BY THE RESPONDENTS

SR.NO	SERVICES USED	NO. OF RESPONDENTS	PERCENTAGE
1.	Debit Card	121	81.8%
2.	Credit Card	45	30.4%
3.	Net Banking	87	58.8%
4.	Mobile Banking	106	71.6%
5.	Online fund transfer	67	45.3%
6.	Order for a cheque book online	30	20.3%
7.	Check the account statement online	51	34.5%
8.	Recharge DTH, broadband, mobile, etc.	65	43.9%
9.	Online loan application	13	8.8%
10.	Online KYC	27	18.2%
11.	Other	3	2.1%

Which IT-based banking service do you use?

148 responses
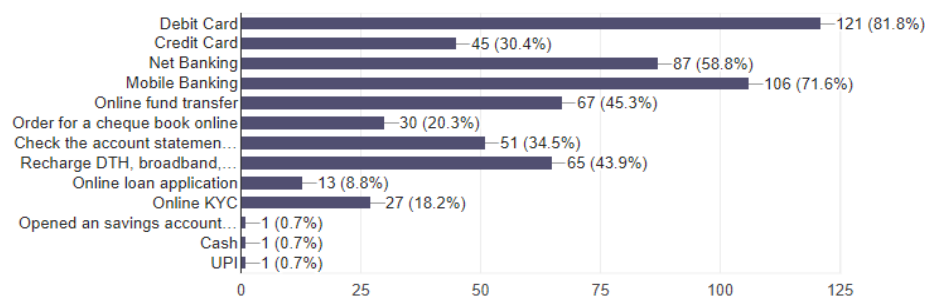
Banks offer a variety of IT-based services, including Debit Card, Credit Card, Net Banking, Mobile Banking, Online Fund Transfer, Recharge DTH, broadband, and mobile, among others. When asked what online banking services they use on a regular basis, respondents were given a variety of options. The most widely used online banking service is debit card, followed by mobile banking, net banking, and so on. This indicates that the respondents commonly utilize debit card services.

CLASSIFICATION OF RESPONDENTS BASED ON THEIR PERCEPTION OF TECHNOLOGY-BASED BANKING SERVICES HAS INCREASED BANKING EFFICIENCY.

SR.NO	TECHNOLOGY-BASED BANKING SERVICES HAS INCREASED BANKING EFFICIENCY	NO. OF RESPONDENTS	PERCENTAGE
1.	Yes	128	86.5%
2.	No	3	2%
3.	Neutral	17	11.5%
	TOTAL	**148**	**100%**

Do you believe that technology-based banking services and online banking have increased banking efficiency?

148 responses
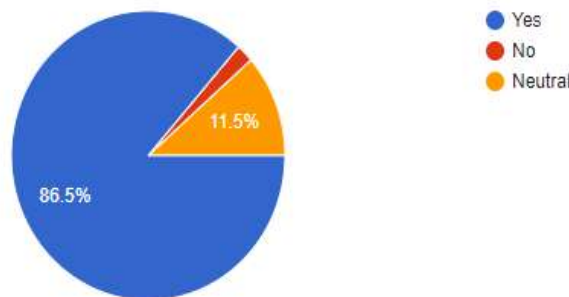
The pie chart above shows whether respondents believe that technologically-based banking services and online banking have improved banking efficiency. The graph is split into three sections: Yes, No, and Neutral. This graph helps us understand the respondents' perspectives on technology-based banking services, as well as whether they believe technology-based banking services have a future. 128 of the 148 respondents believe that technologically-based banking services have boosted banking efficiency, whereas 3 do not agree with the same and 17 respondents are not sure whether such technological-based banking service has increased banking efficiency.

CLASSIFICATION OF RESPONDENTS BASED ON THEIR VIEW ON IT-BASED BANKING SERVICES

SR.NO	VIEW ON IT-BASED BANKING SERVICES	NO. OF RESPONDENTS			
		IT based banking makes banking cheaper	IT based banking is secure way of dealing with bank	walk-in contact with bank (inbranch) is essential	If I could do all I need online, I would never visit the bank
1.	Strongly Agree	63	65	38	73
2.	Neutral	74	73	91	53
3.	Strongly Disagree	11	10	19	22

Please state whether you agree or not with the following statements

The graph above shows how respondents feel about various aspects of the IT-based banking system. The graph is divided into three sections namely Strongly Agree, Neutral and Strongly Disagree. According to the analyzed data, 63 respondents believe that IT-based banking makes banking more affordable, whereas 11 respondents disagree, and the majority of the respondents, 74, have a mixed perspective. When asked whether IT-based banking is a secure means of working with banks, the majority of the respondents, 73, had a neutral opinion, while 65 agreed and 10 disagreed. A total of 91 respondents are undecided on whether face-to-face contact with a bank (at a branch) is necessary, while 38 agree and 19 disagree. When asked if they could accomplish everything they needed online, they would never go to the bank, 73 percent strongly agreed, 53 percent had a mixed attitude, and 22 percent strongly disagreed.

CLASSIFICATION OF RESPONDENTS BASED ON WHETHER THEY FIND ONLINE OR IT-BASED BANKING DIFFICULT TO USE

SR.NO	DO YOU FIND IT-BASED BANKING TO BE DIFFICULT TO USE	NO. OF RESPONDENTS	PERCENTAGE
1.	Agree	25	16.9%
2.	Disagree	59	39.9%
3.	Neutral	64	43.2%
	TOTAL	**148**	**100%**

Do you find online or IT-based banking to be difficult to use?

148 responses
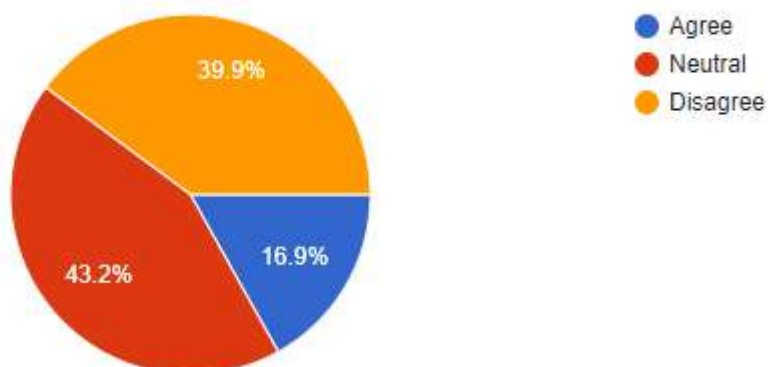
This graph demonstrates the respondents' comfort level with the IT-based banking service and indicates whether they find it difficult or simple to use. This research will also assist banks in making essential modifications to their online banking services in order to make them more user-friendly and efficient.

The respondents' thoughts on whether online or IT-based banking is difficult to use are depicted in the diagram chart above. Yes, No, and Neutral are the three categories in the diagram.

According to the pie chart, the majority of respondents have a neutral opinion about the difficulty of using IT-based banking services, accounting for 43.2 percent of the total respondents, while 39.9% of the respondents do not find it difficult to use, and the remaining respondents, 16.9% of the total respondents, find IT-based banking services difficult to use.

CLASSIFICATION OF RESPONDENTS BASED ON THEIR PREFERENCE BETWEEN ONLINE BANKING AND TRADITIONAL BANKING?

SR.NO	WOULD YOU CHOOSE ONLINE BANKING OVER TRADITIONAL BANKING	NO. OF RESPONDENTS	PERCENTAGE
1.	Yes	89	60.1%
2.	No	17	11.5%
3.	Maybe	42	28.4%
	TOTAL	**148**	**100%**

Would you choose online banking over traditional banking?

148 responses
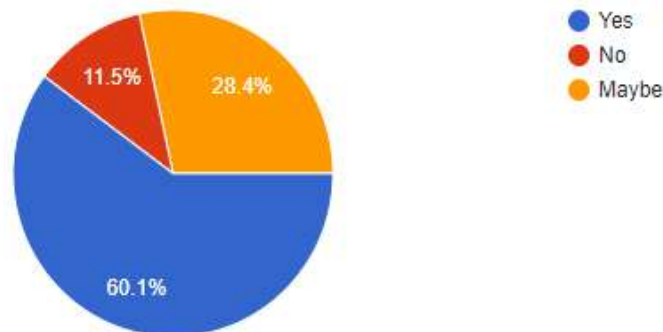
The pie chart above shows whether respondents prefer traditional banking services or online banking services. This will assist banks in determining how many consumers are interested in using IT-based banking services to complete all banking transactions, and the bank will be able to make various innovations and upgrades as a result. The diagram is divided into three sections, Yes, No and Maybe

According to the results of the survey, 89 respondents prefer online banking over traditional banking, which is the majority preference. 42 respondents, on the other hand, have a split opinion and are unsure whether they can select online banking over traditional banking. While 17 respondents are certain about avoiding using IT-based banking services.

CLASSIFICATION OF RESPONDENTS BASED ON THEIR PERCEPTIONS OF HOW SIMPLE AND QUICK BANKING TRANSACTIONS HAVE BECOME SINCE THE INTRODUCTION OF IT.

SR.NO	WOULD YOU CHOOSE ONLINE BANKING OVER TRADITIONAL BANKING	NO. OF RESPONDENTS	PERCENTAGE
1.	Very Easy	46	31.1%
2.	Easy	50	33.8%

3.	Neutral	26	17.6%
4.	Difficult	22	14.9%
5.	Very Difficult	4	2.7%
	TOTAL	**148**	**100%**

How simple and quick have banking transactions become since the arrival of IT?

148 responses
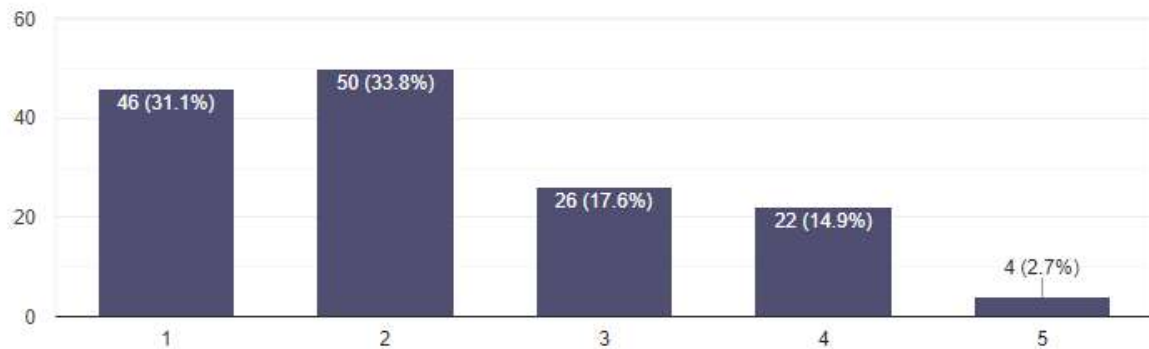
The graph above demonstrates how the introduction of IT has simplified banking for customers. This research may also assist banks in making essential service modifications in order to satisfy customer expectations. The graph above is divided into five sections: Very Easy Easy, Neutral, Difficult, and Very Difficult.

According to the findings of the study, 31.1 % find banking very easy since the introduction of IT, whereas the majority of the respondents which is 33.8 % feel banking has become easy. On the other hand, 17.6% of respondents are undecided, claiming that it is neither easy nor difficult. While 14.9 percent of respondents believe banking has grown more difficult with the introduction of IT and 2.7 percent believe banking has become extremely difficult.

CLASSIFICATION OF RESPONDENTS BASED ON THEIR PERCEPTIONS ON TECHNOLOGICAL INNOVATION AND IMPLEMENTATION HAS INCREASED CUSTOMER SERVICE, SATISFACTION AND REDUCED COSTS IN THE BANKING SECTOR OF INDIA

SR.NO	PERCEPTIONS ON TECHNOLOGICAL INNOVATION AND IMPLEMENTATION HAS INCREASED CUSTOMER SERVICE, SATISFACTION AND REDUCED COSTS IN THE BANKING SECTOR OF INDIA	NO. OF RESPONDENTS	PERCENTAGE
1.	Strongly agree	45	30.4%
2.	Agree	64	43.2%
3.	Neutral	36	24.3%
4.	Disagree	3	2%
5.	Strongly disagree	0	0%
	TOTAL	**148**	**100%**

Technological innovation and implementation has increased customer service, satisfaction and reduced costs in the Banking sector of India

148 responses

- Strongly agree
- Agree
- Neutral
- Disagree
- Strongly disagree
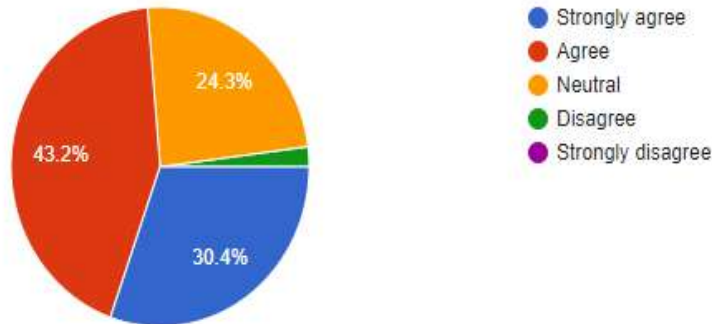
The pie chart above depicts how technological advancements in India have enhanced banking operations and consumer happiness. Strongly agree, Agree, Neutral, Disagree, and strongly Disagree are the five groupings on the pie chart.

According to the findings, 30.4 percent of respondents strongly agree with the point, and the majority of respondents ie. 43.2 percent agree that technological innovation has improved the country's banking operations, whereas 24.3 percent of respondents have a neutral opinion, and 2% of respondents disagree with the point.

CLASSIFICATION OF RESPONDENTS BASED ON THEIR SATISFACTION WITH THE ONLINE BANKING FACILITIES PROVIDED BY THEIR CURRENT BANK

SR.NO	ARE YOU SATISFIED WITH THE ONLINE BANKING FACILITIES PROVIDED BY THEIR CURRENT BANK.	NO. OF RESPONDENTS	PERCENTAGE
1.	Yes	103	69.6%
2.	No	12	8.1%
3.	Maybe	33	22.3%
	TOTAL	**148**	**100%**

You are satisfied with online banking facilities provided by your current bank

148 responses

- Yes
- No
- Maybe
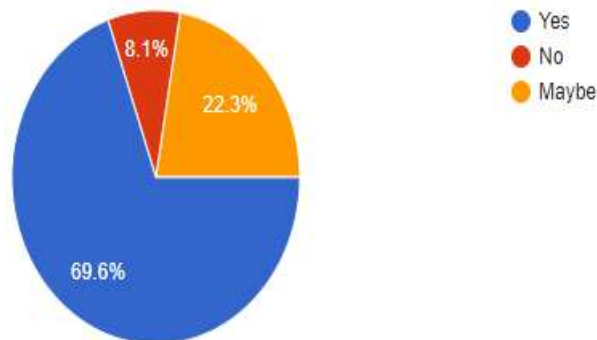
The pie chart above depicts the respondents' satisfaction with their current bank's online banking services. This research can assist banks in determining their clients' satisfaction levels and making the necessary changes and updates as a result. The pie chart is divided in three areas:Yes, No, and Maybe

According to the findings of the study, the majority of respondents i.e. 103 of the total respondents are satisfied with the online banking services provided by their banks. While 33 respondents have a positive outlook, 12 respondents are dissatisfied with their banks' online services.

CLASSIFICATION OF RESPONDENTS BASED ON THEIR VIEWS ON WHETHER IT-BASED BANKING IS BENEFICIAL DURING THE COVID-19 ERA

SR.NO	IS IT-BASED BANKING IS BENEFICIAL DURING THE COVID-19 PANDEMIC	NO. OF RESPONDENTS	PERCENTAGE
1.	Yes	128	86.5%
2.	No	7	4.7%
3.	Maybe	13	8.8%
	TOTAL	**148**	**100%**

Do you think IT-based banking is beneficial during the Covid era?

148 responses
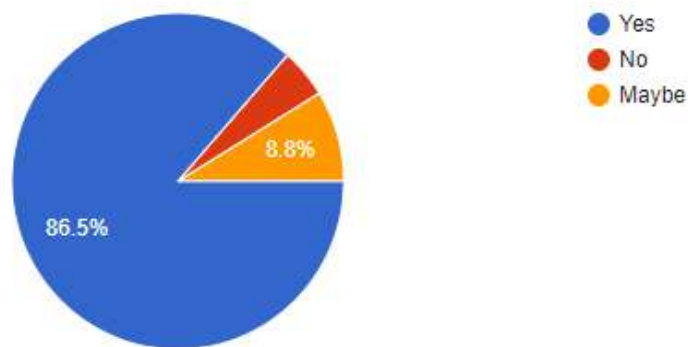
The pie chart above depicts respondents' opinions on whether it-based banking is beneficial in the covid-19 era. This graph illustrates how advantageous IT-based banking is during a pandemic. The graph below has been divided into three categories: Yes, No, and Maybe.

As can be seen from the graph, the majority of respondents, or 86.5 percent of the total, believe that IT-based banking has been beneficial during the Covid-19 outbreak. While 4.7 percent of respondents disagree with it, and 8.8 percent have conflicting opinions about it.

CLASSIFICATION OF RESPONDENTS BASED ON WHETHER THE COVID-19 PANDEMIC HAS PROMPTED THEM TO START OR SWITCH TO ONLINE BANKING SERVICES

SR.NO	WHETHER THE COVID-19 PANDEMIC HAS PROMPTED THEM TO START OR SWITCH TO ONLINE BANKING SERVICES	NO. OF RESPONDENTS	PERCENTAGE
1.	Yes	107	72.3%
2.	No	17	11.5%
3.	Maybe	24	16.2%
	TOTAL	**148**	**100%**

Do you feel the covid-19 pandemic has prompted you to start or switch to online banking services?

148 responses
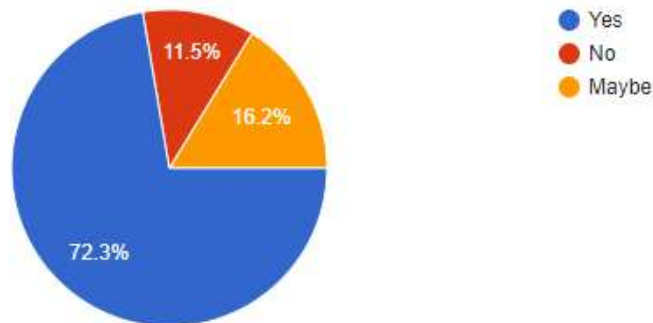
The respondents' views on whether the covid-19 pandemic has led them to start or switch to online banking services are depicted in the pie-chart above. Yes, No, and Maybe have been separated into three areas on the graph.

According to the findings, the majority of respondents i.e. 107 respondents, believe that the covid-19 pandemic has pushed them to begin or switch to online banking services. The 24 respondents who have a split opinion are unsure about the same, and 17 respondents disagree that the covid-19 epidemic has motivated them to start or switch to online banking.

CLASSIFICATION OF RESPONDENTS BASED ON THEIR WILLINGNESS TO USE IT-BASED BANKING SERVICES EVEN AFTER THE END OF THE COVID-19 PANDEMIC

SR.NO	RESPONDENTS WILLINGNESS TO USE IT-BASED BANKING SERVICES EVEN AFTER THE END OF THE COVID-19 PANDEMIC	NO. OF RESPONDENTS	PERCENTAGE
1.	Yes	116	78.4%
2.	No	25	16.9%
3.	Maybe	7	4.7%
	TOTAL	**148**	**100%**

Will you continue using IT-based banking services even after the end of the COVID-19 pandemic?

148 responses
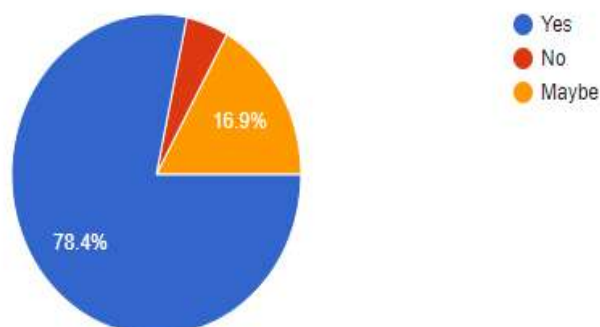
The above statistics demonstrate the respondents' willingness to use IT-based banking services even after the pandemic ends.

According to the analysis, the majority of respondents i.e. 78.4 %, are willing to use IT-based banking services even after the epidemic is over. While 4.7 % of respondents are unwilling to continue, 16.9 % are unsure if they would continue to utilize IT-based banking even after the pandemic has ended.

CONCLUSION

According to the findings, the majority of respondents have chosen digital or IT-based banking as their preferred method of conducting banking activities. The results of this study also lead us to the conclusion that the use of information technology in banking has aided the banking sector's advancement to the next level. The introduction of IT has simplified not just the lives of clients, but also the tasks of service providers. This form of IT-based deployment in banking products and services would help banks provide more effective and timely services to their clients while lowering costs. As a result of fierce competition and rising client expectations, Indian banks have become more aware of information technology. The superior technology-based offers provided by foreign and rising private sector banks have driven Indian commercial banks to adopt new technology in their day-to-day operations.. In India, banks are adopting information technology to improve not only their own internal processes but also the facilities and services they provide to their clients. The Indian banking industry is benefiting immensely from the global information technology revolution. By enabling advanced product creation, enhanced market infrastructure, and the deployment of reliable risk control mechanisms, it has benefited financial intermediaries in accessing geographically distant and diversified markets. The effective use of technology has allowed banks to manage the increased transaction volumes that come with a larger customer base in a more accurate and timely manner.

Customers can now bank from anywhere and at any time thanks to the banking industry's digitalization. According to the study, respondents were either impartial or agreed that the advent of IT in the Indian banking sector has made transaction, communication, and other parts of the industry easier and more simple. There are several advantages to using information technology in the banking sector, such as simple procedures, quick and convenient processes, 24 hour availability, and so on. However, there are also some disadvantages, such as the possibility of fraud, a lack of knowledge, server failure, and so on. These disadvantages are areas of concern, and they discourage customers from using IT-based banking systems. If these drawbacks are addressed, and suitable direction is offered to consumers and employees, the use of information technology will elevate the Indian banking sector to new heights.

SUGGESTIONS

1. The respondents' data should not be sold or handed out to a third party, which will lead the client to suffer losses and thus the voice assistant losing its clientele.

2. The data of the respondents should not be sold or given to a third party, as this will cause the customer to lose money and lose faith in the IT-based banking system.

3. The online banking service provider must maintain the privacy of its consumers.

4. The banks should launch a campaign to encourage locals and people in remote areas to use IT-based banking.

5. Customers should be given proper instructions and demonstrations on how to use the system.

6. Banks should use the block chain system.

7. Customers should also take safeguards on their own, such as not exchanging OTPs and PINs with others, avoiding opening spam or irrelevant emails or messages, and ensuring network connectivity not leaving cards on the tables or ATMs.

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TO STUDY THE IMPACT OF PANDEMIC ON MENTAL HEALTH

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ABSTRACT

Living in the GEN-Z generation today, Mental disability and mental health care have been neglected. This is mysterious as mental disabilities are pervasive, affecting approximately 8% of the world's population. we need to be able to speak up about our mental health freely. From the time when physical and mental health was assumed to be the same, how can a person be physically fit, but mentally unstable? Mental health is a huge different aspect from physical health, theoretically as well as practically.

In this research, we address issues of mental health, models of understanding mental disability, and the implications of treating it correctly. This felt mandatory to be addressed and spoken out loud. People need to be literate on this subject, as they should understand what they are going through by being fully aware of it. And not misunderstand mental health issues with something that is not an issue. Provide information that therapy, and counselors are not useless people as many people in India might believe and mental illness can surely be treated fully. On a primary basis, we have surveyed to figure out in depth what people feel about mental health through google forms. Our secondary basis is the data collected from newspapers, magazines, and official websites.

Keywords: Mental health, Literate.

INTRODUCTION

Health is a state of complete physical, mental, and social well-being and not merely the absence of disease. Mental health is more than the mere lack of mental disorders. Concepts of mental health include subjective well-being, perceived self-efficacy, liberty, competence, intergenerational dependence, and recognition of the ability to realize one's intellectual and emotional potential. It has been a state of well-being whereby individuals recognize their abilities and can cope with the daily stresses of life, work productively and fruitfully, and contribute to their communities. Mental health is about enhancing the competencies of individuals and communities and enabling them to achieve their self-determined goals.

Mental health should be a concern for all of us, rather than only being for those who go from a mental disorder. No group is immune to mental disorders, but the risk is higher among the poor, homeless, the unemployed, persons with low education, victims of violence, migrants and refugees, indigenous populations, children, and adolescents, abused women and the neglected elderly. For all individuals, mental, physical, and social health areas are near interwoven and vital strands of life. As our understanding of this interdependent relationship grows, it becomes ever much more apparent that mental health is crucial to the overall well-being of individuals, societies, and countries. Unfortunately, in most places, mental health and mental disorders are not given anywhere the same importance as physical health. Instead, it has largely been ignored or neglected. A mental illness can make you miserable and cause problems in your daily life

COMMON TYPES OF MENTAL ILLNESS CAUSES:

Anxiety disorders: An anxiety disorder is diagnosed if the person's response is not appropriate for the situation, if the person cannot control the response, or if the anxiety interferes with normal functioning. Anxiety disorders include generalized anxiety disorder, panic disorder, social anxiety disorder, and specific phobias.

Mood disorders: These disorders involve persistent feelings of sadness or periods of feeling overly happy, or fluctuations from extreme happiness to extreme sadness. The most common mood disorders are depression, bipolar disorder, and cyclothymic disorder.

Psychotic disorders: Psychotic disorders involve distorted awareness and thinking. Two of the most common symptoms of psychotic disorders are hallucinations - the experience of images or sounds that are not real, such as hearing voices - and delusions, which are false fixed beliefs that the ill person accepts as true, despite evidence to the contrary.

Eating disorders: Eating disorders involve extreme emotions, attitudes, and behaviours involving weight and food. Anorexia nervosa, bulimia nervosa, and binge eating disorder are the most common eating disorders.

Impulse control and addiction disorders: People with impulse control disorders are unable to resist urges, or impulses, to perform acts that could be harmful to themselves or others. Often, people with these disorders

become so involved with the objects of their addiction that they begin to ignore responsibilities and relationships.

Personality disorders: People with personality disorders have extreme and inflexible personality traits that are distressing to the person and/or cause problems in work, school, or social relationships.

Obsessive-compulsive disorder (OCD): People with OCD are plagued by constant thoughts or fears that cause them to perform certain rituals or routines. The disturbing thoughts are called obsessions, and the rituals are called compulsions. An example is a person with an unreasonable fear of germs who constantly washes their hands.

Post-traumatic stress disorder (PTSD): PTSD is a condition that can develop following a traumatic and/or terrifying event, such as a sexual or physical assault, the unexpected death of a loved one, or a natural disaster. People with PTSD often have lasting and frightening thoughts and memories of the event and tend to be emotionally numb.

EFFECT ON MENTAL HEALTH DURING PANDEMIC:

Our findings support the notion that the current COVID-19 pandemic is making a significant negative impact on mental health of college students. College students who exhibit greater academic and life difficulties may be particularly vulnerable to higher mental health distress. The current pandemic may further exacerbate already existing problems. The timeline of the pandemic is uncertain, further impacting students' academics, lives, and mental health. With a host of negative consequences associated with poor mental health, further research is needed to address additional risk factors (i.e., substance use, coping mechanisms, social support, family, and peer relationships dynamics) that are associated with mental health in this population. Additional studies investigating the effect of pandemic on mental health of faculty may provide a better understanding of the impact of COVID 19 on higher education. Our findings suggest that college health service providers and administrators need to consider proactive measures to support the mental health and well-being of students. Mental health interventions and professionally trained counselors could help students address academic and financial concerns, which may alleviate the mental health burden of the pandemic. In public health emergencies like this, many students will have special needs and emerging challenges that will require responsive programming by colleges.

HOW TO IMPROVE YOUR MIND HEALTH:

Mental health includes emotional, psychological, and social well-being. It affects how we think, feel, act, make choices, and relate to others. Mental health is more than the absence of a mental illness—it's essential to your overall health and quality of life. Self-care can play a role in maintaining your mental health and help support your treatment and recovery if you have a mental illness. Try these tips to keep your life balanced, or re-balance yourself.

Get regular exercise: Just 30 minutes of walking every day can help boost your mood and improve your health. Small amounts of workouts add up, so don't be discouraged if you can't do 30 minutes at one time.

Eat healthy: regular meals and stay hydrated. A balanced diet and plenty of water can improve your energy and focus throughout the day. Also, limit caffeinated beverages such as soft drinks or coffee.

Make sleep a priority: Stick to a schedule, and make sure you're getting enough sleep. Blue light from devices and screens can make it harder to fall asleep, so reduce blue light exposure from your phone or computer before bedtime.

Try a relaxing activity: Explore relaxation or wellness programs or apps which incorporate meditation, muscle relaxation, or breathing exercises. Schedule regular times for these and other healthy activities you enjoy.

Set goals and priorities: Decide what must get done now and what can wait. Learn to say "no" to new tasks if you start to feel like you're taking on too much. Try to be mindful of what you have accomplished at the end of the day, not what you have been unable to do.

Practice gratitude: Remind yourself daily of things you are grateful for, Be specific. Write them down at night or replay them in your mind.

Focus on positivity: Identify and challenge your negative and unhelpful thoughts.

Stay connected: Reach out to your friends or family members who can provide emotional support and practical help.

Self-care looks different for everyone, and it is necessary to find what you need and enjoy. It may take trial and error to discover what works best for you.

WHEN TO SEEK PROFESSIONAL HELP:
Seek professional help if you are experiencing severe or distressing symptoms that have lasted two weeks or more, such as:

1. Difficulty sleeping

2. Appetite changes that result in unwanted weight changes 3. Struggling to get out of bed in the morning because of mood 4. Difficulty concentrating

5. Loss of interest in things you usually find enjoyable

6. Inability to perform usual daily functions and responsibilities

Don't wait until your symptoms are overwhelming. Talk about your concerns with your primary care provider, who can refer you to a mental health specialist if needed.

OBJECTIVE OF THE RESEARCH:
1. To understand the perspective of respondents on   knowledge and awareness about mental health.

2. To understand signs and symptoms of mental illness.

3. To know whether people are freely able to talk about their mental health.

4. To understand the characteristics and find measures to improve mental health.

5. To know the impact of Pandemic on the mental health of pupils.

SCOPE OF THE RESEARCH:
The main motive of our research focuses on the people to provide them information about mental health, make them literate about what exactly is mental health, the issues, signs and symptoms, treatments, etc for the betterment of their healthy future. As they can verify early signs if they are going through any mental issues. There is no certain age group where a person can be mentally ill, it can happen to any age group-any time. We also want to make it clear of this myth people usually have of the two things, one, physical and mental health are both the same and two, mental health cannot be fully treated. Very untrue These are so fake thoughts people living in this generation can think of. We want people to understand the fact that mental health can be treated fully with the help of experts whom we simply call the therapist/counsellor and with the help of sharing and communicating with our loved ones as friends and family. Lastly, we want to make a positive impact on people, proving to them, they can beat mental health easily. It's very common, any age, at any time can face it, we need to make sure how we make our way out of this situation. That's exactly what matters. Improving and focusing on our health is just a few steps away, we usually just ignore it or keep it for later but let us prioritize our health first in all the ways possible.

REVIEW OF LITERATURE:
Mental Health Research in India (Technical Monograph on ICMR Mental Health Studies) Written by - Dr Bela Shah, Dr Rashmi Parhee, Dr Narender Kumar, Dr Tripti Khanna, Dr Ravinder Singh, and Collated by Dr Narender Kumar. This research paper has spoken on mental health in depth, starting from its core, the term introduction in India, various other factors. They investigated the consideration of different causes. The feedback for this research paper would be to have kept it solely focused on mental health and not on the drugs and suicidal behaviour in-dept even if mental health can influence such bad behaviour their study has spoken so much about these behaviours, I find it unnecessary. Instead, the writers could have shared more about the treatments, how to improve and could simplify the words in their paper for easy understanding.

METHODOLOGY OF THE RESEARCH:
1. The primary data was collected based on a questionnaire created using google forms from different individuals in the Mumbai region.

2. The secondary information was collected from books, articles, research papers, websites, and magazines.

PROFILE OF THE RESPONDENTS:

Table 1.1: CLASSIFICATION OF RESPONDENTS BASED ON THEIR AGE

Age of Respondents	Percentage
13-17	9.1%
18-25	60.6%
26-40	17.6%
41-60	12.7%
61 and above	0%

The age of a person helps to determine the knowledge level, working experience and exposure of the person which would, in turn, differ due to different perceptions towards various aspects related to Mental Health. The age profile variables have been divided into five categories, namely, 13-17, 18-25, 26-40, 41-60, 61 and above years of age. From the above table 1.1, it can be observed that the maximum number of respondents belonging to the age profile of 18 to 25 is 60.6% out of the total respondents. This hence helped to indicate that the maximum number of respondents are from the young and socially active generation.

Table 1.2: CLASSIFICATION OF RESPONDENTS BASED ON GENDER

Gender	Percentage
Male	52.1%
Female	47.9%
Other	0%

From the above-mentioned table 1.2, it is observed that the number of male respondents is more than that of female respondents. Out of all the respondents, male respondents are 86 in number whereas there are 79 female respondents. There are 0 respondents from another gender.

FINDINGS AND ANALYSIS OF THE RESEARCH:
1. UNDERSTANDING WHAT MENTAL HEALTH IS

What is Mental Health?
165 responses
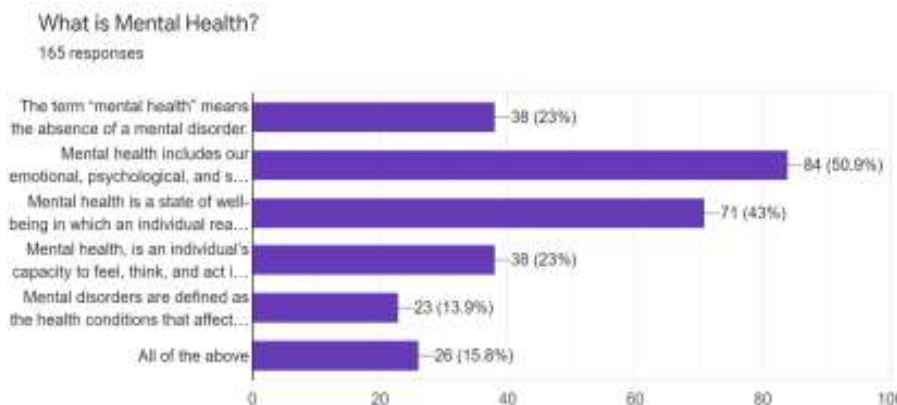
The above bar graph shows what people think is mental health. 50.9% of the respondents which is 84 people believe that mental health includes our emotional, psychological and social well-being, 43% which is 71 people feel Mental health is a state of well-being in which an individual realizes his or her abilities, 23% that is 38 respondents believe Mental health, is an individual's capacity to feel, think, and act, 13.9% that is 23 people think Mental disorders are defined as the health conditions that affect and alters cognitive functioning, 23% of respondents which is 38 people say that the term 'mental health' means the absence of a mental disorder, and 15.8% believed it's 'all of the above' which is 26 respondents.

2. CLASSIFICATION OF THE RESPONDENTS BASED ON, IF THEY THINK WHETHER THE MENTAL AND PHYSICAL HEALTH ARE BOTH DIFFERENT ASPECTS OF SAME

Do you believe that mental and physical health are both different aspects?
165 responses

- Yes, they are different
- No, they are same
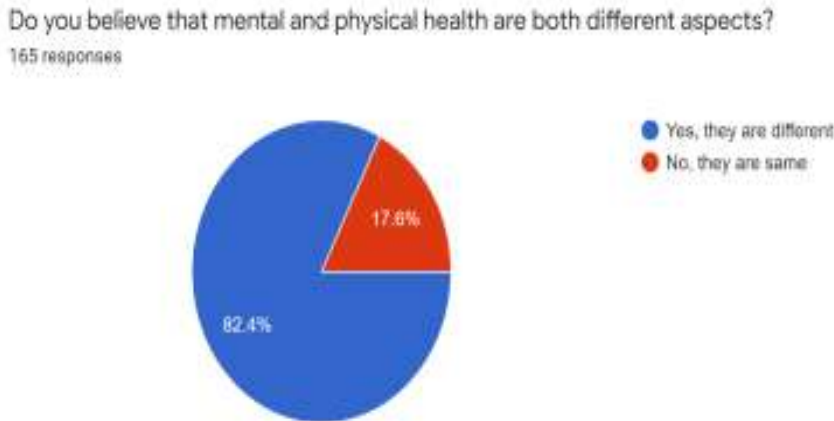
The pie chart showcased above shows whether the respondents agree or dis agree that mental and physical health are both different aspects.136 respond ents of 165 said that mental and physical health are both different aspects, whereas 29 respondents said that mental and physical health are both the same.

3. CLASSIFICATION OF THE RESPONDENTS BASED ON THE YOUNGEST AGE A PERSON CAN BE MENTALLY SICK.

According to you, what is the youngest age a person can be mentally sick?
165 responses

- 10
- 14
- 18
- 20
- Any age
- Depends on the environment of the pe...
- It's not specific very age group person...
- any age

1/2 ▼
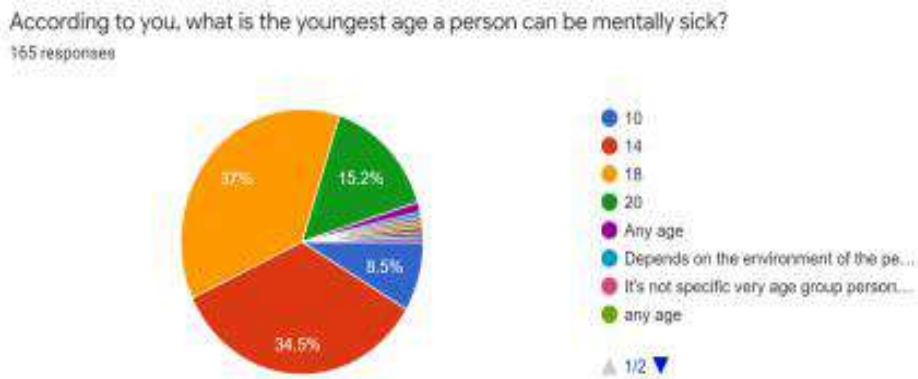
The above pie chart shows what respondents think is the youngest age a per son can be mentally sick. 37% which is 61 respondents say that at the age of 18 a person can be mentally sick, 34.5% that is 57 respondents say at the age of 14, 15.2% that is 25 respondents say at the age of 20, 8.5% which makes 14 respondents say at the age of 10, 3 respondent says it can be any age, 1 says any age above 10, 1 says it's not specific every age group person can be mentally sick, 1 says it depends on the environment of the person, 1 said it can be of any age and another 1 respondent said it can be less than age 10 too.

4. CLASSIFICATION OF WHAT PEOPLE FEEL IS THE CAUSE OF MENTAL ISSUES.

What do you believe causes mental illness?
165 responses

Category	Value
Poor indigestion	23 (13.9%)
Withdrawing social contact	54 (32.7%)
Felling unhappy or sad	69 (41.8%)
Family history	46 (27.9%)
Trauma, Stress, life experience	62 (37.6%)
Being too critical about oneself	38 (23%)
Biological factors	30 (18.2%)
All of the above	21 (12.7%)
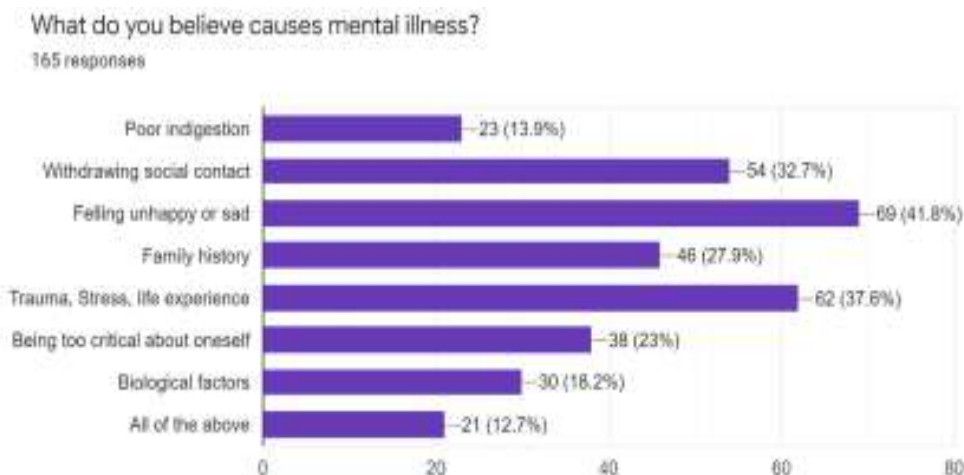
The above bar graph helps us to understand what people believe are the causes of mental illness. The 23 respondents believe it's because of poor digestion, 54 respondents believe its due to withdrawing social contact, major ity of 69 respondents believe feeling unhappy or sad, 46 respondents believe family history, 62 respondents believe that trauma, stress, and life experience cause mental illness, 38 respondents believe being too critical about oneself, 30 respondents believe biological factors and 21 people believe it's because all of the above.

5. CLASSIFICATION OF RESPPONDENTS BASED ON HOW PEOPLE LIKE TO DEAL WITH STRESSFUL SITUATION.
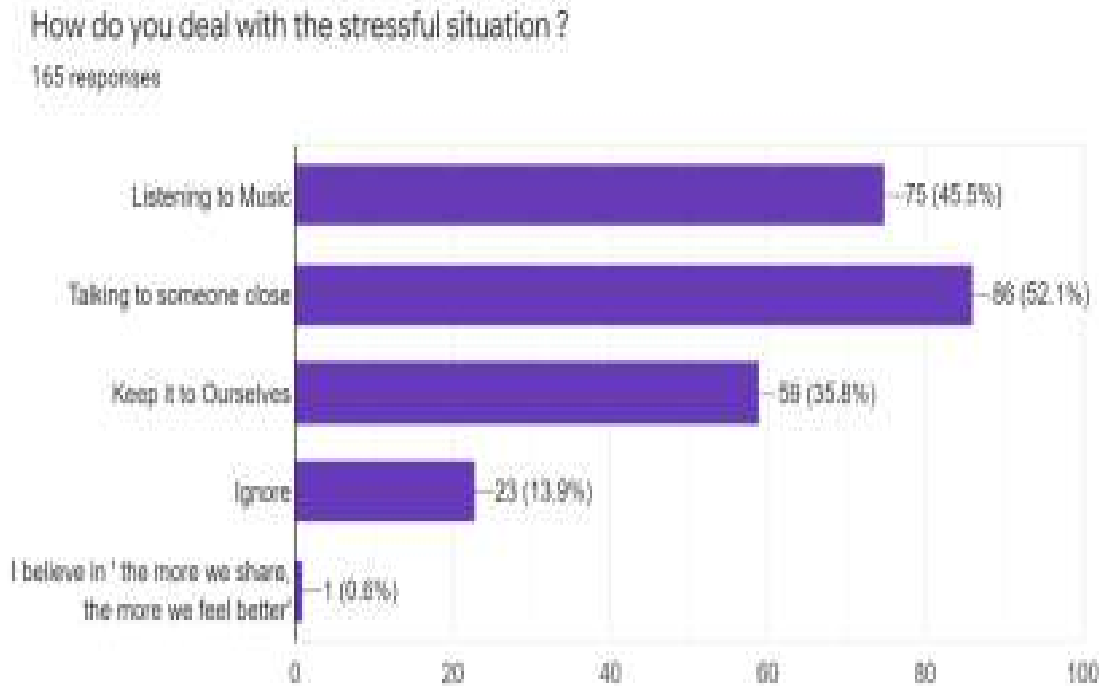
The above bar graph shows how people prefer to deal with a stressful situation and the majority i.e., 86 respondents said that they deal with the situation by talking to someone close, 75 respondents listen to music, 59 respondents keep it to themselves, 23 respondents ignore it and 1 believe in 'the more we share, the more we feel better' philosophy.

6. CLASSIFICATION OF THE RESPONDENTS BASED ON PEOPLE IF THEY ARE OPEN BE TO TALKING ABOUT THEIR MENTAL HEALTH OR NOT.
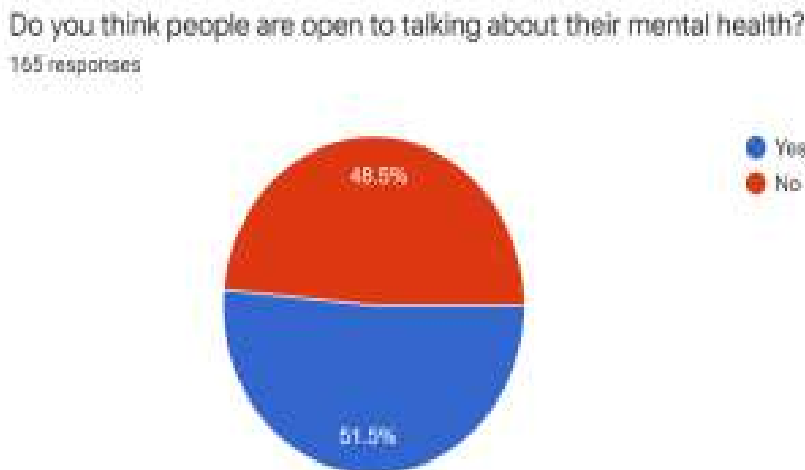
The above pie chart shows whether people are open to talking about their mental health or not. Out of which 51.5% of respondents, which is 85 people, said that they feel people are open to speak up about their mental health and 48.5% that is 80 respondent feel people are not open to talking about their mental health.

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7. CLASSIFICATION OF THE PEOPLE TO UNDERSTAND THAT WITH WHOM THEY ARE COMFORTABLE SHARING ABOUT THEIR MENTAL HEALTH.

From the given below, with whom would you be comfortable sharing about your mental health?
165 responses
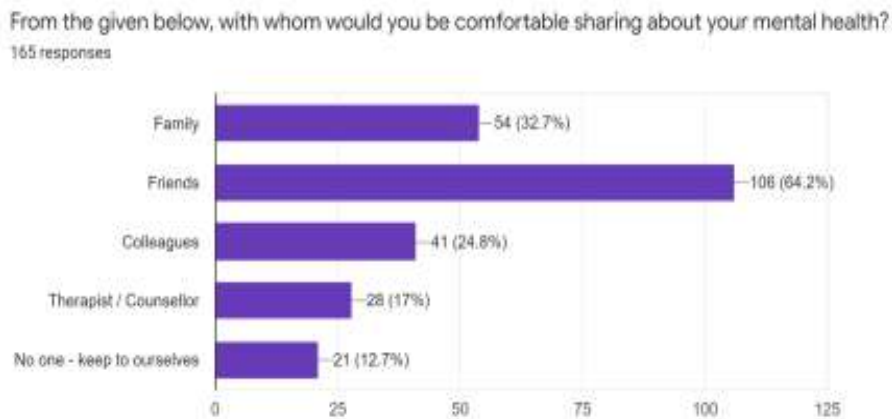
The above bar graph represents that with whom the people are comfortable more sharing about their mental health. The majority of 106 respondents that is 64.2% are comfortable sharing with their friends, 54 respondent who is 32.7% with their family, 41 respondents with their colleagues which is 24.8%, 28 respondents with their therapist/counsellor which is 17% and the rest 21 respondent that is 12.7% would like to keep it to themselves only.

8. CLASSIFICATION OF THE PEOPLE TO KNOW IF THEY FIND ALCOHOL, DEPRESSION AND ANGER CAN CAUSE STRESS.

According to you, can alcohol, depression or anger can cause stress?
165 responses
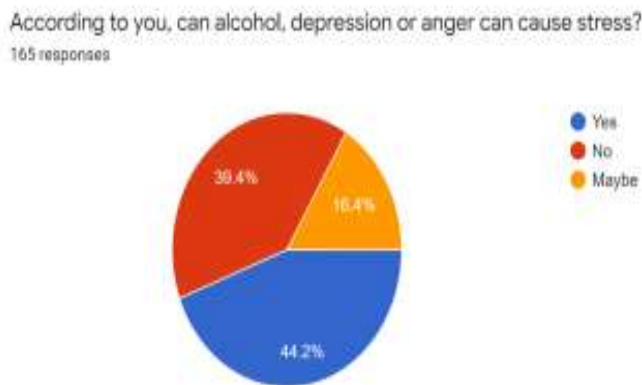
This pie chart shows whether alcohol, depression, and anger cause stress to people. 44.2% i.e. 73 respondents found it relevant, that is these can cause stress and 39.4% i.e 65 respondents said they don't and the rest 16.4% that is the remaining 27 respondents aren't sure if it does any effect on their mental health.

9. CLASSIFICATION OF THE PEOPLE TO KNOW WHETHER THE PANDEMIC HAS BEEN AFFECTING ON THE MENTAL HEALTH MORE OR NOT.

Do you think Pandemic has been affecting mental health more??
165 responses
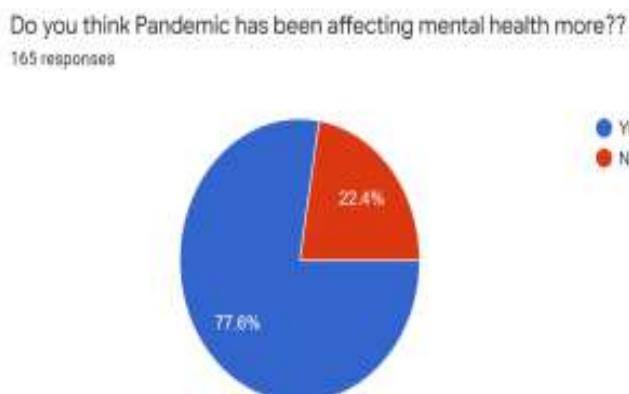
The above pie chart shows whether the pandemic has affected mental health more or it has not, for which 77.6% that is 128 of the respondents says yes it has affected mental health and the rest 22.4% that is the 37 respondents says no.

10. CLASSIFICATION OF THE RESPONDENTS TO VERIFY HOW FREQUENTLY PEOPLE HAVE FELT STRESSED OUT IN LAST 6-12 MONTHS.
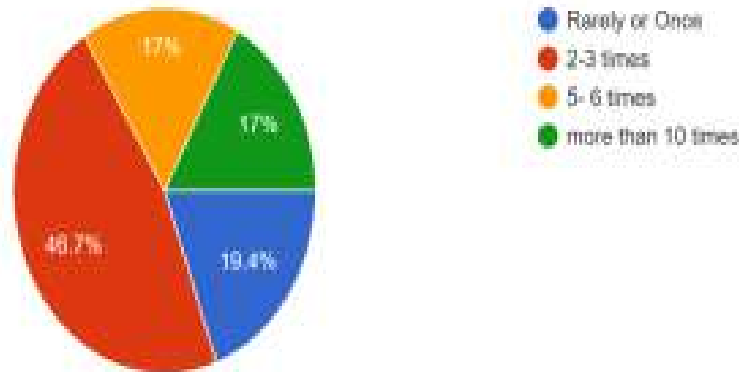
This pie chart helps us to understand how frequently people have felt stressed out in the past 6-12 months. Out of 165, 32 respondents say they've once or rarely felt stressed out, 77 of respondents say they felt stressed out 2-3 times, 28 of respondents felt stressed 5-6 times and 28 respondents felt stressed more than 10 times.

11. CLASSIFICATION OF THE RESPONDENTS BASED ON WHAT THEY LIKE TO DO TO KEEP THEMSELVES HAPPY AND STRESS-FREE.
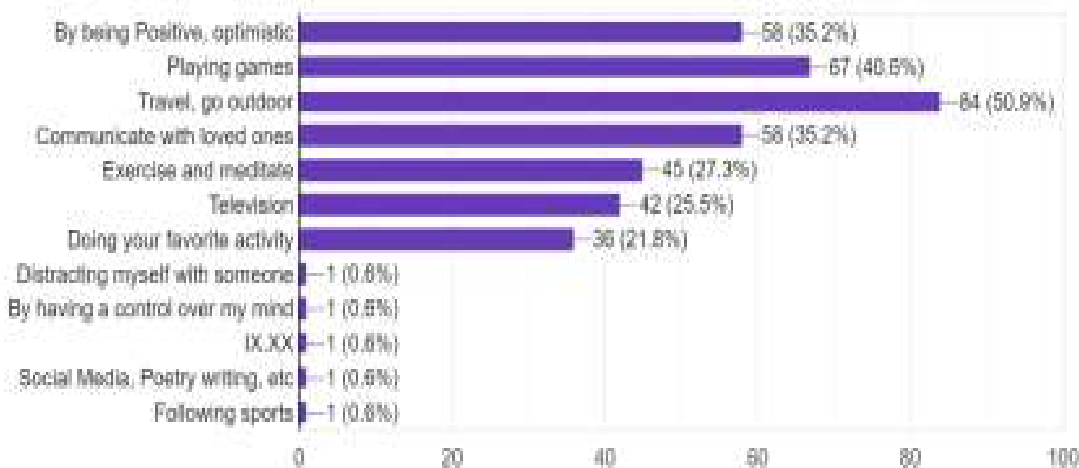
The above bar graph represents what people like to do to keep themselves happy and stress-free. 58 respondents said by being Positive, optimistic they keep away from stress, 67 respondents by Playing games, 84 respondents prefer to go outdoor or travel, 58 respondents felt to communicate with their loved ones, 45 respondents like to exercise or meditate, 42 respondents watch television, 36 respondents do their favourite activity, while others had their personal views. 1 respondent distracts from the situation, 1 respondent tries to keep control over their mind, 1 tries to spend time on social media or poetry writing and 1 respondent follows sports while being in stress.

12. CLASSIFICATION OF THE RESPONDENTS TO VERIFY WHETHER THE PEOPLE OF INDIA FIND THERAPY AND COUNSELLING USEFUL OR USELESS.

Do you feel people of India find therapy and counselling useless?
165 responses

- Yes
- No

24.2%
75.8%
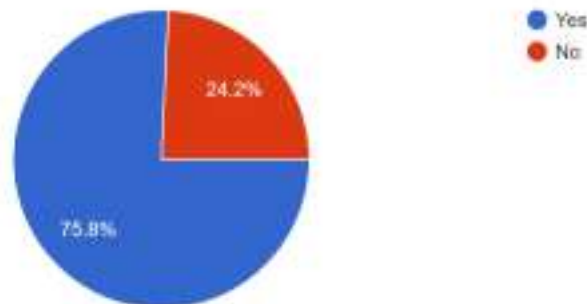
The above pie chart previews what people of India think about therapy and counselling. 125 out of 165 respondents feel that therapy and counselling are thought useless, and the rest 40 respondents find it useful.

13. CLASSIFICATION OF THE RESPONDENTS BASED ON WHAT THEY THINK ABOUT MENTAL ILLNESS BEING ABLE TO BE TREATED FULLY OR NOT.

Do you think mental illness can fully be treated ?
165 responses

- Yes, can fully be treated
- No, cannot be treated fully

28.5%
71.5%
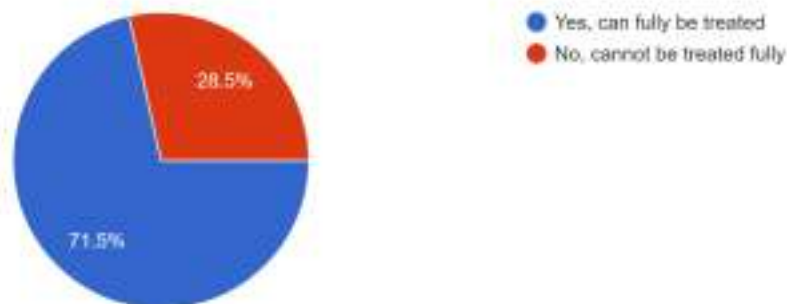
The above bar graph explains what respondents think of the treatment of mental illness whether it can be fully treated or cannot be not. The majority 71.5% that is, 118 respondents believe that yes, it can be fully treated. And the remaining 28.5% is 47 respondents who don't agree with it.

14. CLASSIFICATION OF THE RESPONDENTS BASED ON THEIR OPINIONS REGARDING HOW MENTAL HEALTH LITERACY CAN BE IMPROVED.

How should mental health literacy be improved? Share your suggestions
165 responses

Sessions in the school/colleges/offices — 75 (45.5%)
Encourage speaking about mental issues — 110 (66.7%)
Leverage social media — 54 (32.7%)
Volunteer in health campaigns — 47 (28.5%)
Be open and more accepting — 54 (32.7%)
Sadly our country is little lacking behind in the case of maintaini... — 1 (0.6%)
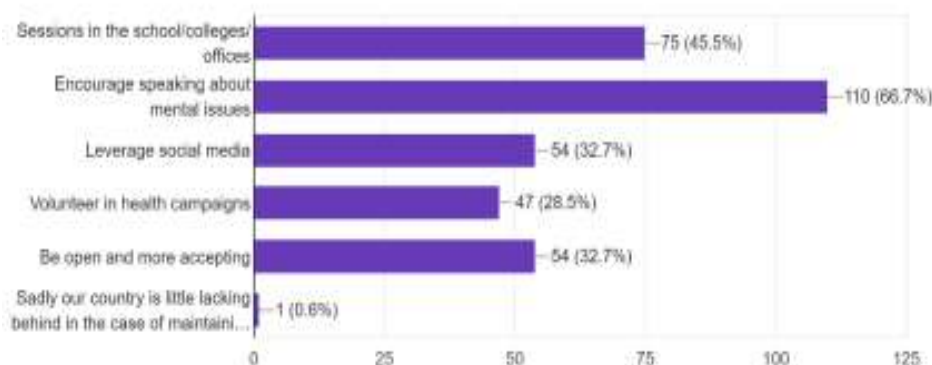
The above graph represents the suggestions of the respondent based on how mental health literacy can be improved in today's world. 75 people suggested Sessions in the school/colleges/offices, 110 people think Encouraging to speak about mental issues is a way to improve literacy, 54 people suggest being leveraged off social media, 47 people suggest Volunteer in health campaigns, 54 people believe to Be open and more accepting. While 1 wrote, 'Sadly our country is little behind in the case of maintaining their mental health, it would be great if people start normalising mental health and its therapy'.

CONCLUSION

Mental sickness is becoming a growing issue in the 21st century. Not everyone receives the help that they need. Even though mental illness is common these days and can affect anyone, there is still a stigma attached to it. People are still reluctant to accept the illness of mind because of this stigma. They feel shame to acknowledge it and seek help from the doctors. It's important to remember that "mental health" and "mental sickness" are not interchangeable. Mental health and mental illness are inextricably linked. Individuals with good mental health can develop mental illness, while those with no mental disease can have poor mental health. Mental illness does not imply that someone is insane, and it is not anything to be embarrassed by. Our society's perception of mental disease or disorder must shift. Mental health cannot be separated from physical health. They both are equally important for a person. Our society needs to change its perception of mental illness or disorder. People must remove the stigma attached to this illness and educate themselves about it. If mental illness is not treated at the correct time, then the consequences can be grave. One of the essential roles of school and education is to protect boys' and girls' mental health as teenagers are at a high risk of mental health issues. It can also impair the proper growth and development of various emotional and social skills in teenagers. Many factors can cause such problems in children. Feelings of inferiority and insecurity are the two key factors that have the greatest impact. As a result, they lose their independence and confidence, which can be avoided by encouraging the children to always believe in themselves. To make people more aware of mental health, 10th October is observed as World Mental Health. The object of this day is to spread awareness about mental health issues around the world and make all efforts in the support of mental health. The mind is one of the most powerful organs in the body, regulating the functioning of all other organs. When our minds are unstable, they affect the whole functioning of our bodies. Being both physically and emotionally fit is the key to success in all aspects of life. People should be aware of the consequences of mental illness and must give utmost importance to keeping the mind healthy like the way the physical body is kept healthy. Mental and physical health cannot be separated from each other. And only when both are balanced can we call a person perfectly healthy and well. So, it is crucial for everyone to work towards achieving a balance between mental and physical wellbeing and get the necessary help when either of them falters.

SUGGESTION:

1. Mental health is a broad term to improve literacy on this subject. We must organise campaigns, seminars, and webinars in schools/colleges/offices.

2. People should be aware of the therapy and counsellor significance by sharing their importance around us.

3. Everyone must encourage communication. Speak and listen rule. Share your feelings and be a good listener of someone else's feelings.

4. Be open that mental illness does not mean a person is mentally and needs to go to a mental hospital. Be accepting.

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STUDY ON AWARENESS OF CRYPTOCURRENCY

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ABSTRACT
The world of money and finance is transforming before our eyes. Digitized assets and innovative financial channels, instruments, and systems are creating new paradigms for financial transactions and forging alternatives of capital. The aim of this currency is not tied to, created, or backed by the government. Crypto currencies use block chain technology as a financial platform. Since there have not been enough research papers investigating the adoption and acceptance of crypto currency by users. This research paper aims to fill the gap in the current crypto currency adoption level, adoption influencing factors. The paper suggests that the main factors he paper suggests that the main factors driving the adoption decision by providing investment opportunity crypto currency forms, the anonymity of the transactions and privacy, the acceptance by business as a payment method, the instant transaction, the low cost of transactions, and technological curiosity. The research findings help researchers and students to better understand their consumer's intention towards crypto currency adoption.

Keywords: crypto currency, adoption, investment.

INTRODUCTION

- Since the beginning of lockdown on 25 march 2020 many countries started printing trillions of dollars of money coming into the system so what has happened to hear is that the fiat currency that is INR. The US dollar, Euro that we hold is devaluing over time. E.g. the US printing millions of dollars which are equivalent to Indian GDP. Imagine that much money coming into the system. The value of things in exchange for currency that was used in the past differs in the present time and will continuously change in the future, so the inflation and the value of our fiat currency are going down over time. As we are progressing that currency will continue to devalue over time so what people do is people use that money to invest in certain instruments now all of that money is coming new into the system and our fiat is getting devalued so people have started investing more money in crypto currencies like Bitcoin, Ethereum and Dogecoin etc. cause people used to invest early before in gold, real estate and equity market but since the equity market is at peak, real estate is not giving many rates of return, people have started seeing crypto currency having a good store of value , hence many people in different countries around the world have started investing in crypto currency. A crypto currency is an arrangement of digital asset grounded on a network that is dispersed across a great quantity of computers. This decentralized assembly permits them to happen outside the controller of governments and central authorities. Experts believe that block shackle and associated technology will interrupt many industries, including money and by-law. The advantages of crypto currencies contain low-priced and earlier money transmissions and decentralized systems that do not downfall at a solitary point of disappointment .The disadvantages of crypto currencies contain their value instability, high energy ingesting for mining activities, and use in illegal actions.

LITERATURE REVIE

Enma Mnif Anis Jarboui (2020): Five crypto currencies with high market capitalization were employed to explain the method and focus on the COVID-19 impact on their efficiency.

Yinpeng Zhang, PanPan Zhu & YingYing Xu (2021): gold performs worse compared with the Bitcoin futures

Augstin Carstens (2020): Sound money is central to our market economy, and it is central banks that are uniquely placed to provide this. If digital currencies are needed, central banks should be the ones to issue them.

OBJECTIVES OF THE STUDY:

1. To understand the point of view of the respondents towards awareness of crypto currency.

2. To know the possible concerns that the respondents might face while investing in crypto currency.

3. To analyze whether the respondents will be willing to have a clear about crypto currency.

SCOPE OF THE STUDY:

This research focuses on to investigate investment on crypto currency and it's adoption during pandemic.

It helps to understand the factors influencing the adoption decision.

It helps in examining in detail about crypto currency before investing.

METHODOLOGY OF THE STUDY:

- Primary information has been collected through questionnaire administered on different respondentsfrom Mumbai Region. • Random sampling technique is adopted to collect information from 76 responses.

- Secondary data has been collected from research papers, e-journals and websites.

Findings of Study:

The present data is based on primary data collection from various people in society. The data of people's awareness of their views of adopting a new type of digital currency and should it be introduced for educational purposes all these data were collected from the period of 13th January 2022. The collected data were analyzed by my laptop and me.

1. Age:
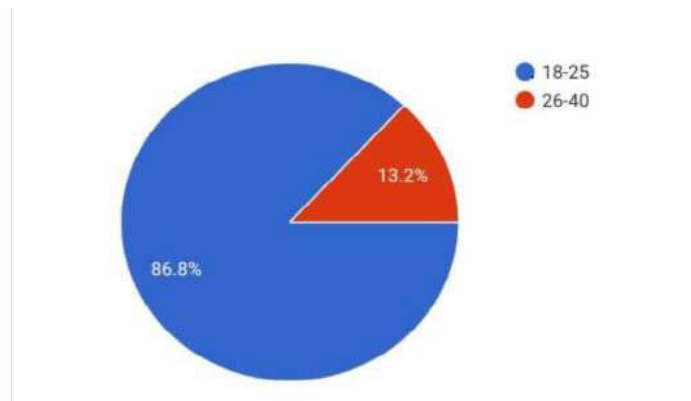
The respondents between 18-25 age group were 86.8% and age group 26-40 respondents were 13.2%.

1. Gender
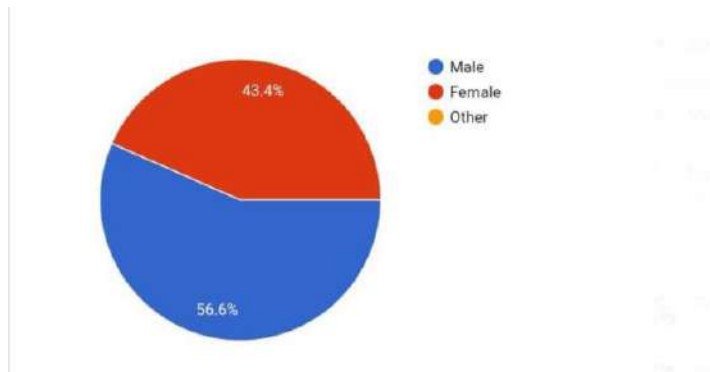
The respondents for male gender is 56.6% and female is 43.4%. For other category no respondents have responded back for survey conducted.

2. Have you ever heard about Crypto Currency?
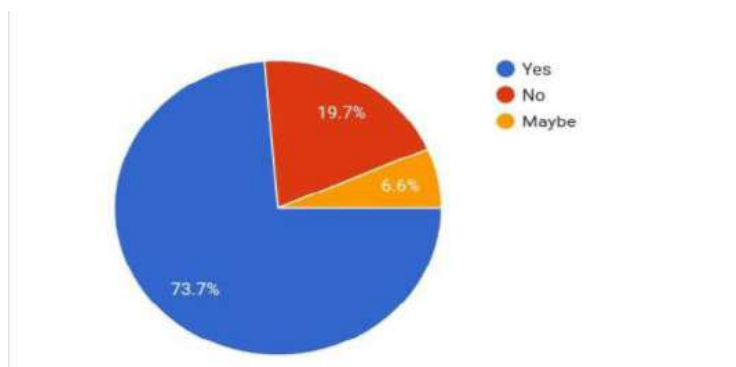
Cryptocurrency is a hot topic for Indian according to primary data collected. 73.7% of people out of 76 responses were aware of the cryptocurrency from various sources such as news, internet, newspaper, etc. Since people be more on the internet, it boosted the awareness about the crypto platform. The other 19.7% audience had hardly heard about it rarely.

4. Do you invest in Crypto Currency?
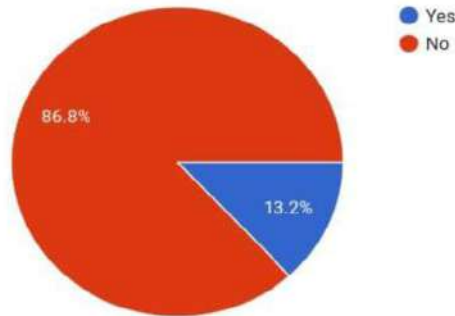
The respondents have responded NO option with 86.8% that is majority as they are not aware about crypto currency. Yes option only 13.2% people have responded.

5. In which crypto currency you would like to invest?

There were different options given for crypto currency investment bitcoin, ethereum, Solana, Cardona, Dogecoin, Polygon where respondents are more interested with bitcoin concept with 85.5%. Ethereum is second highest investment option selected by respondents.
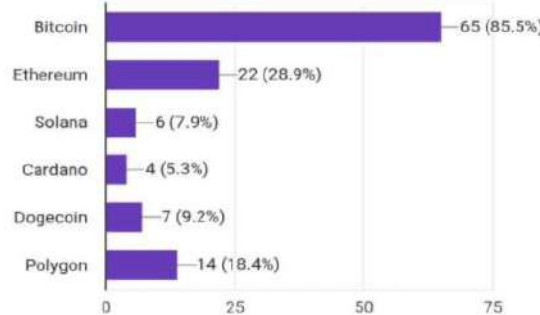
6. Which investment tool according to you is much better to invest?

54%
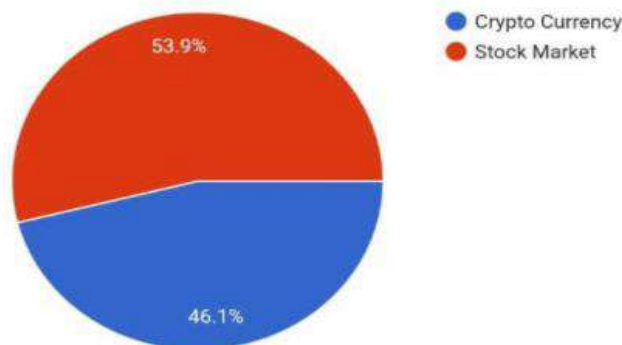
The people are not much aware about crypto currency but stock market knowledge is more as we can see in above pie diagram respondents have responded more for stock market than crypto currency.

7. Which app is you feel is better for investment?

There were different app options given such as Upstocks, CoinDcx, Binomo, WazirX, Zebpay, Binance and Coin switch. The respondents use Upstocks more comparatively other apps with 55.3%. The second highest app used by people is Binamo with 32.9% and third highest app used is Coin switch with 27%.

76 responses
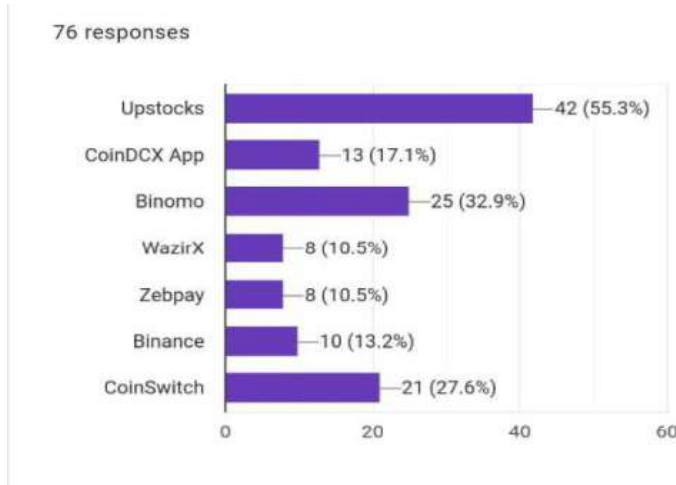
8. Do you think Crypto Currency should be adopted?

76 responses
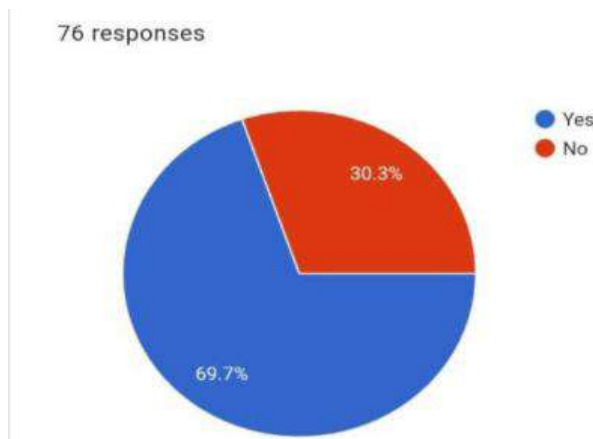
In this Histogram, the surveyed sample asked to rate how much they were influenced by cryptocurrency during pandemic where 1 being the lowest and 20 being the highest.

%

9. Do you feel if RBI passes the bill for crypto currency the number of investors investing in crypto will increase?

76 responses
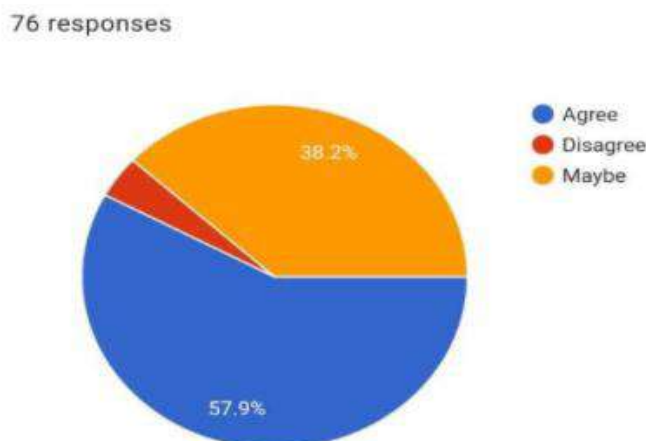
With a review of percent of 57.9%, people are interested to invest in crypto but due to the government banning crypto people take a step back on coming forward to invest or even think about investing.

10. Do you feel crypto currency investment is risky?

%
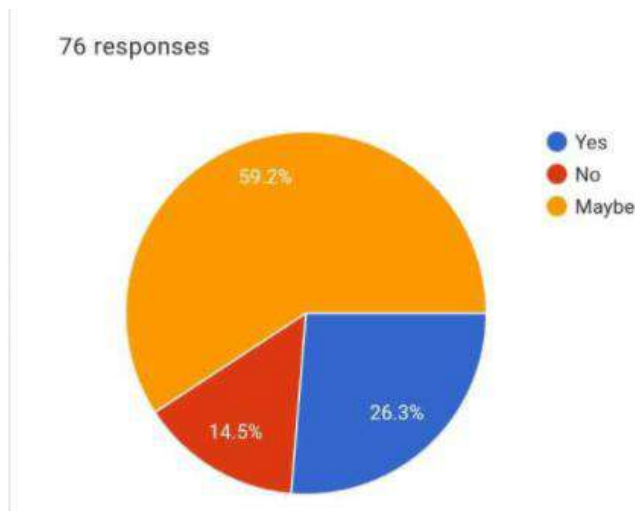
The above pie diagrams reveal People's awareness of their views of adopting a new type of digital currency and should it be introduced for educational purposes from the period of 13th January 2022 to 15th January 2022.

Do you feel if RBI passes the bill for

94099Do you feel Investment in Crypto Currency is risky?

CONCLUSION:

The goal of this paper is to investigate the adoption of crypto currency during the pandemic. The study of this paper has examined the factors influencing the adoption decision and provided an in-depth analysis of each factor. The study suggests that the main factors influencing the adoption fall into four main categories: Technical, Economic, Social and Personal. The most influencing factor which influences the adoption decisions acceptance by business as payment method, fast transfer of funds, low cost of transactions and technological curiosity factors.

In the end, the study helps to know about crypto currency. This study will not make you to stop from investing in crypto because ultimately it is your money and the risk is yours as well so 100% of the profits or losses are all yours because this is not the season for bulls or bears. This is pig's season. Pigs are particular type of investors who invest based on tips and advisories and exit the market based on similar tips and messages. If all of your decisions are motivated by greed and fear then they are not rational decisions, always remember "Bulls make money, Pigs are slaughtered". And sharing this simple thing with you makes difference to me.

SUGGESTIONS

1. The suggestion for this is to make people aware more about crypto currency investment as per research most of them are having knowledge about stock market.

2. The investment training should be given so that investors are aware of all kinds of investment and its benefits.

3. It is risky investment but profitable one can take decision accordingly.

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WOMEN AS AN INVESTMENT DECISION MAKER OF THE FAMILY

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ABSTRACT

The contribution of Indian women for their families, companies, and society are now being recognised. With modernisation and more women engaged in economic activities, the importance of women in family decisions is growing. Her influence on family decisions is growing as her education, employment, and contribution to the family's incomes alter. According to several studies throughout the world, women tend to be risk averse, cautious, have lower levels of financial expertise, lack confidence, and rely on the advice of others when making investing decisions. This project explains the definition of investment, history of investment, types of investment for women, society towards women investors and investment after covid 19. The study concludes that women's efforts, as well as societal support, are required to transform women's limitations and threats into their strengths and opportunities, therefore boosting their involvement in financial markets.

Keywords: Women, Investment, Male domination, Risk

INTRODUCTION

In today's date, women play a crucial role in families. Nowadays families have started supporting working women. In today's generation, surviving with only one person working is a difficult task because the needs of the people and the standard of living has increased. As the woman is working for the family it is necessary to discuss the investments with her. She can give her opinion on the investments as she also will have the knowledge of the outer world. For the woman to be independent it is necessary for her to make her own decisions and earn for her living. Every woman should work and support other women to work.

To build confidence, one must begin investing since only then will they understand how it works and will have a better understanding of how to invest, when to invest, and the risk associated in an investment.

Definition of Investment

India is a country with a market that is both complex and huge. Investment is the practice of putting money into something with the intention of making money or increasing the worth of something. An investment is a purchase of stocks or products with the intention of profiting in the future. Investments can be made either online or offline.

The History of Investment

Technology has made investing simpler than ever before and provided investors with a greater range of options, but the fundamentals have been there for centuries.

The origins of the present investment structure may be traced back to the 1600s. Although the Amsterdam Stock Exchange, which started in 1602, is commonly referred to as the first stock exchange, there is evidence of investment prior to that date. The Code of Hammurabi, which dates from circa 1700 BC, does, in fact, give some legal structure for investment.

Top type of Investments for women
1. Fixed Deposit(FD)

The most common type of investment where women invest the most. Fixed Deposit is also called Certificate of Deposit or Term Deposit or Time Deposit. Fixed deposit is a bank or credit union product that pays a higher interest rate in exchange for the consumer agreeing to keep a lump-sum deposit undisturbed for a certain length of time. Almost all the financial institutions provide FD, they decide a particular condition that how much higher the return will be compared to the bank's savings, money market products and what penalties it will impose for early withdrawal.

2. Provident Fund Investment

In India, and other emerging nations, a provident fund is a mandatory, government-managed retirement savings system. They also have certain characteristics in common with pension plans supplied by employers. Employers must contribute on behalf of their employees and employees must donate a percentage of their wages to the provident fund.

The money in the fund is then retained and administered by the government, with retirees or, in certain countries, their surviving family eventually withdrawing it. In rare circumstances, the fund also provides assistance to handicapped people who are unable to work.

3. Mutual Fund

A mutual fund is a form of financial vehicle that invests in securities such as stocks, bonds, money market instruments, and other assets by pooling money from multiple investors. Professional money managers manage mutual funds, allocating assets and attempting to generate capital gains or income for the fund's investors. The portfolio of a mutual fund is built and managed to meet the investment objectives indicated in the prospectus.

Society towards women Investors-

Men continue to be valued higher than women in our culture. Inequalities between men and women continue to be a serious issue in our country. The factors that cause such situations include illiteracy and narrow-minded people. Inequalities between men and women continue to be a serious issue in our country. Not only on a small scale, but even globally this has affected the growth of women investors. According to a study conducted in 2017, just 20% of women are aware of economic principles. The main reason behind this is the society which does not let women to educate, gain knowledge and at the end they fall dependent on their families. Women do not invest for a variety of reasons, the most prevalent of which is that society discourages investing. Second, while there are female investors, the public is aware that the market is dominated by men. Women may invest incorrectly even if they are aware of financial products. This implies that women perceive money differently than men.

Investment after Covid-19

Covid-19 has an effect on the economic indicators that have been harmed by uncertain aspects, causing financial markets to malfunction. Investors and other financial money planners have also made numerous planned activities that may be employed to carry out successful and high profits in the current times of the Covid-19 epidemic, according to the report. COVID-19, on the other hand, has a major impact on the global economy, as well as the financial markets. Investment into any market has become Risky due to the pandemic. There has been a drastic fall in all markets till date. People too don't have enough to invest because to manage the household expenses and surviving during the lockdown time was a very difficult task for people. As there were not many investors the market fell down drastically.

OBJECTIVES OF THE STUDY:

- To understand if the women in India are educated and do they have knowledge of investments.

- To know whether women play an important role in investment decision making in their family.

- To analyse whether people support women for investment into various markets.

- To analyse whether women investors will increase in coming years.

SCOPE OF THE STUDY:

This research focuses on Women as an investment decision maker of the family to help them conduct their Investment habits and to grow independent in their families and society. This study will help establish good relations of society toward women to work and invest, and future possibilities in this arena. This will directly affect the level of consumer satisfaction and the economy of the country. In addition to this, the respondents of this research are randomly selected who have a business, who are serving organisations, working women as well as non working women and also students who are well aware of difficulties, opportunities and advantages about investment.

REVIEW OF LITERATURE-
Role of women as an investment decision maker of the family-

Women investors are a force that cannot be ignored, given their greater engagement in the labour sector, as well as the trend toward increased lifespan and rising net worth. With the advancement of women's education, literacy, and financial contribution to the family, women's participation in family decision-making is expanding. Previously, the male member of the family made the majority of the financial choices. However, with the rise of the female economy, women are actively participating in the majority of family decisions, including financial ones. There has been research that shows that women's participation in household decision-making has risen in recent decades (Mader and Schneebaum, 2013), (Bernasek and Bajtelsmit, 2002), (Babiarz and Woodyard, 2012), (Bertocchi, Brunetti and Torricelli, 2014) (Sharma, Manish and Kota, 2019).

METHODOLOGY OF THE STUDY:
· Primary information has been collected through questionnaires administered on different respondents from Mumbai Region.

· Random sampling technique is adopted to collect information from 101 respondents

· Secondary data has been collected from research papers, e-journals and websites.

DATA ANALYSIS AND INTERPRETATION-
The data gathered by the researcher from various respondents was analysed in order to draw conclusions and provide suggestions.

The acquired data has been analysed and evaluated in this chapter to better understand the respondents' perception concerning women as an investment decision maker of the family.

The data which was collected has been showcased in tables and can be analysed using the pie charts and bar diagrams.

The data collected resulted in the creation of 15 charts in all. The following sections provide a brief summary of the analysis and interpretation.

CLASSIFICATION OF RESPONDENTS ON THE BASIS OF AGE

SR.NO	AGE	NO. OF RESPONDENTS	PERCENTAGE
1.	18-25	42	41.6%
2.	26-40	19	18.8%
3.	41-65	39	38.6%
4.	66 ABOVE	1	1%
	TOTAL	**101**	**100%**

AGE
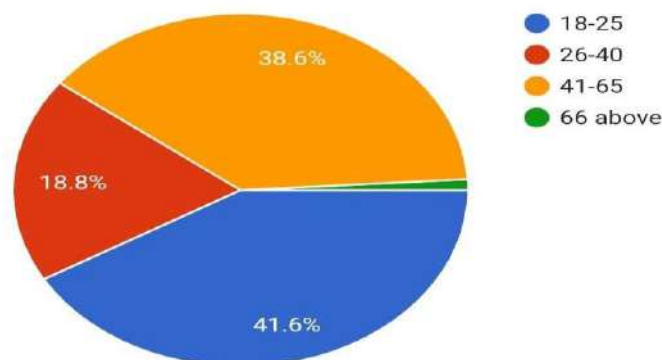
THE ABOVE PIE CHART REPRESENTS THE AGE OF THE RESPONDENTS
The age of a person helps to determine the knowledge level and exposure of the person to the outer world which would in turn differ due to different perceptions towards various aspects related to women as an investment decision maker of the family. The age profile variables have been divided in four categories, namely 18-25, 26-40, 41-65, 66 and above. The age under 18 below was not taken because I think they wouldn't understand technical terms.

From the above chart, it can be observed that the maximum respondents belong to the age profile 18-25 and 41-65 that is 41.6% and 38.6% respectively of the total respondents. This hence helped to indicate that the maximum number of respondents are from the young generation

CLASSIFICATION OF RESPONDENTS ON THE BASIS OF GENDER

SR.NO	GENDER	NO. OF RESPONDENTS	PERCENTAGE
1.	MALE	27	73.3%
2.	FEMALE	74	26.7%
	TOTAL	**101**	**100%**

GENDER
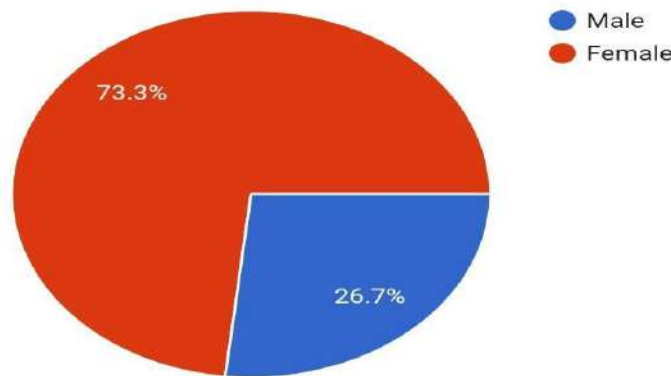
THE ABOVE PIE CHART REPRESENTS THE GENDER OF THE RESPONDENTS

The gender of the respondents is included as one of the profiles in this study. To know their perception of women as an investment decision maker of the family.

From the aforementioned pie diagram, it is observed that the number of female respondents is more than that of male respondents. Out of all the respondents, male respondents are 27 in number whereas there are 74 female respondents.

CLASSIFICATION OF DATA ON DECISION MAKING OF FAMILY

SR.NO	GENDER	NO. OF RESPONDENTS	PERCENTAGE
1.	MALE	67	68.4%
2.	FEMALE	31	31.6%
	TOTAL	**98**	**100%**

IN YOUR FAMILY WHO TAKES THE MAJOR DECISIONS?
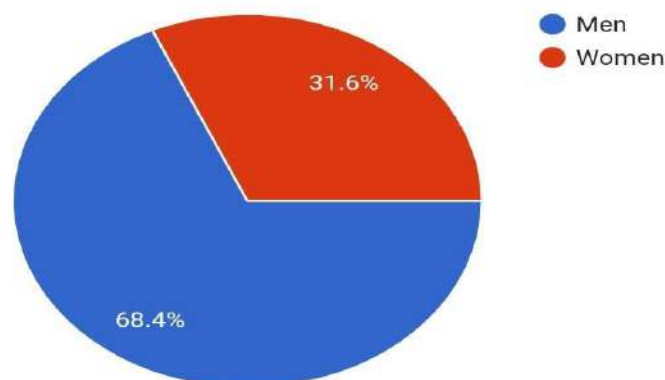
THE ABOVE PIE CHART REPRESENTS WHO TAKES THE MAJOR DECISIONS IN THE FAMILY OF THE RESPONDENTS

The diagram shows the division of the respondents on the major decision making of the family.

As in most of the houses, men are the decision makers of the family whereas in some houses women play the role of decision making.

As per the survey, 68.4% are men investment decision makers and 31.6% are women decision makers of the family.

CLASSIFICATION OF DATA ON WOMEN TAKING CRUCIAL INVESTMENT DECISION

SR.NO	OPTIONS	NO. OF RESPONDENTS	PERCENTAGE
1.	YES	66	65.3%
2.	NO	16	15.8%
3.	MAYBE	19	18.9%
	TOTAL	**101**	**100%**

In your family, do women play a crucial role in taking decisions related to investments?
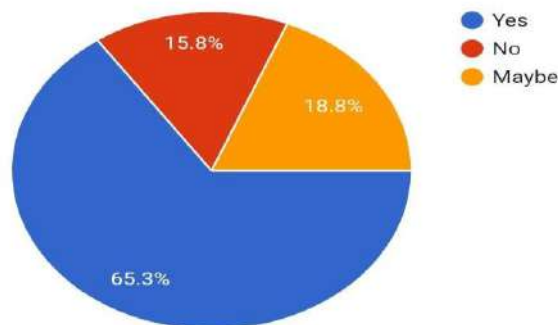
THE ABOVE PIE CHART EXPLAINS WOMEN'S ROLE IN INVESTMENT DECISION TAKING

The above diagram shows the percentage of people that have answered the question: do women play a crucial role in taking decisions related to investments? The above pie chart is divided into three divisions which are yes no maybe.

It has come to be that 66 respondent out of total respondent have said yes 16 respondent out of total has said no and remaining 19 have said maybe

CLASSIFICATION OF DATA APPROPRIATE AGE WHEN A WOMEN SHOULD START MAKING INVESTMENT DECISIONS

SR.NO	OPTIONS	NO. OF RESPONDENTS	PERCENTAGE
1.	18-25	66	65.3%
2.	26-40	34	33.7%
3.	41-60	1	1%
4.	61 Above	0	0
	TOTAL	**101**	**100%**

According to you, what is the appropriate age when a woman should start making investment decisions?
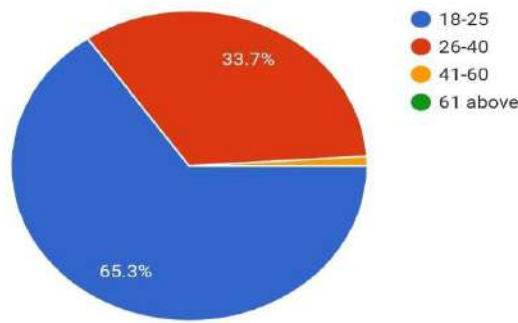
THE ABOVE PIE CHART EXPLAINS THE APPROPRIATE AGE WHEN A WOMEN SHOULD START INVESTMENT

The study shows that the appropriate age when a woman should start making investment decisions is 18-25. The above pie chart is divided into four parts which are: 18-25 26-40 41-60 and finally 61 and above. It shows that 66 respondents out of total respondents have selected the age group of 18-25 34 respondents out of total respondents have selected the age group of 26-40 1 respondent out of total respondents have selected the age group of 41-60 and none have selected 61 and above.

CLASSIFICATION OF DATA ON KNOWLEDGE OF WOMEN IN INVESTMENT SCHEMES

SR.NO	OPTIONS	NO. OF RESPONDENTS	PERCENTAGE
1.	YES	38	37.6%
2.	NO	25	24.8%
3.	MAYBE	38	37.6%
	TOTAL	**101**	**100%**

KNOWLEDGE OF WOMEN IN INVESTMENT SCHEMES
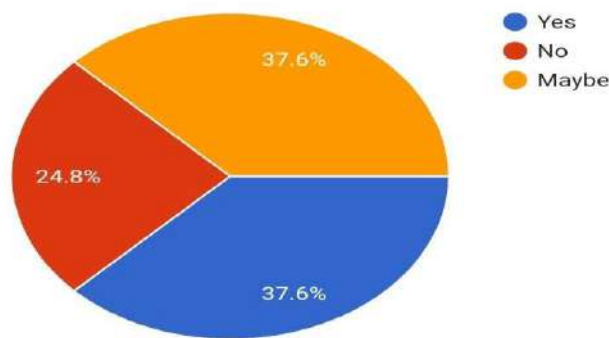
THE ABOVE PIE CHART EXPLAINS THE KNOWLEDGE OF WOMEN IN INVESTMENT SCHEMES

The above table shows the responses of the people that have Answered the question that are women aware about different investment schemes which are prevailing in India? The above pie chart is divided into three parts which is yes no and maybe and it shows that 38 respondents out of a total respondent have said yes 25 the respondent of total respondent have said no and 38 respondents out of the total respondent have said maybe. Looking at the responses it shows that women are aware of the investment schemes that are prevailing in India

CLASSIFICATION OF DATA ON WOMEN INVESTING IN VARIOUS TYPES OF MARKETS

SR.NO	OPTIONS	NO. OF RESPONDENTS	PERCENTAGE
1.	YES	95	94%

2.	NO	1	1%
3.	MAYBE	5	5%
	TOTAL	**101**	**100%**

DO WOMEN ALSO INVEST IN VARIOUS TYPES OF MARKET
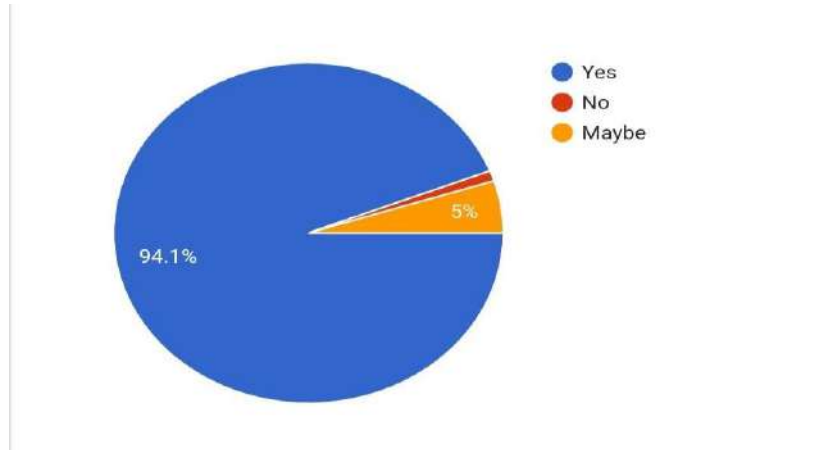
THE ABOVE PIE CHART SHOWS WOMEN INVESTING IN VARIOUS TYPES OF MARKETS

The above table shows that women can also invest in various types of markets.

The above pie chart is divided into three parts which are yes no maybe and it clearly shows that yes they can invest in various type of market for investment as 95 respondents out of total have said yes 1 respondent out of total has said no and 5 respondents out of total have said maybe so yes women can invest in various type of market for investment

CLASSIFICATION OF DATA ON DO WOMEN INVEST

SR.NO	OPTIONS	NO. OF RESPONDENTS	PERCENTAGE
1.	Yes, they invest	95	94%
2.	Risk	1	1%
3.	No proper knowledge	5	5%
4.	Takes a long time to earn benefit	8	7.9%
5.	Don't feel secured	8	7.9%
6.	Others	2	2%

DO WOMEN INVEST, IF NO WHY?
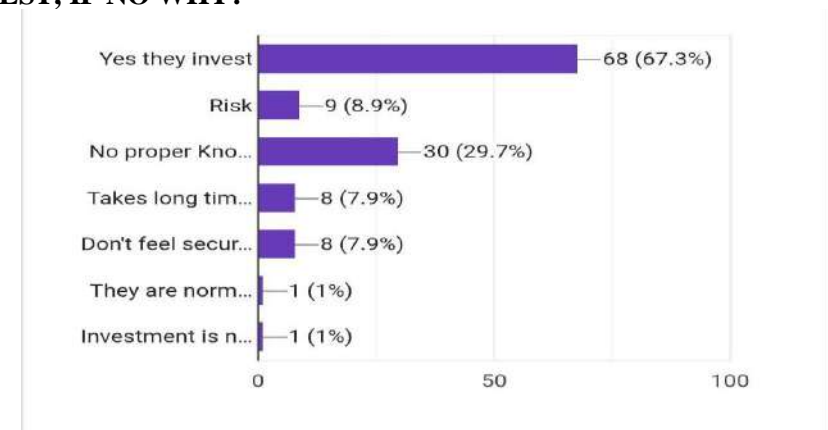
THE ABOVE BAR CHART REPRESENTS THE OPINION ON THE QUESTION DO WOMEN INVEST

The above table shows the response to the above question

The above bar graph shows that 95 respondents out of the total think yes they do invest one respondent out the total thinks no because the reason is risk five respondent out of the total say no because of no proper knowledge eight respondent out of the total think it takes a long time to earn benefit 8 respondents out of the total think they are normally kept out of investment decisions and as per the bar graph its proven that yes women do invest as majority of the people I have selected the option yes they invest

CLASSIFICATION OF DATA ON BASIS OF GENDER

SR.NO	GENDER	NO. OF RESPONDENTS	PERCENTAGE
1.	MALE	81	80.2%
2.	FEMALE	20	19.8%
	TOTAL	**101**	**100%**

INVESTMENT ON THE BASIS OF GENDER
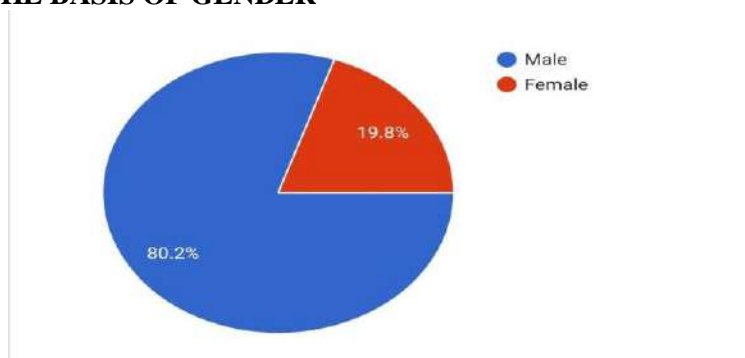
THE ABOVE PIE CHART REPRESENTS WHO INVESTS MORE

The above table shows the classification of data on the basis of gender as a profile.

The data is represented through a pie chart which is divided into two parts male and female and it shows that 81 respondents out of the total have selected male dominance in the market and 20 respondents out of the total have selected male dominance in market.

Conclusion is that the majority of the investors are male throughout the market.

CLASSIFICATION OF DATA ON WOMEN INVESTING FOR LONG OR SHORT TERM

SR.NO	OPTIONS	NO. OF RESPONDENTS	PERCENTAGE
1.	LONG TERM	80	79.2%
2.	SHORT TERM	21	20.8%
	TOTAL	**101**	**100%**

TERM OF INVESTMENT
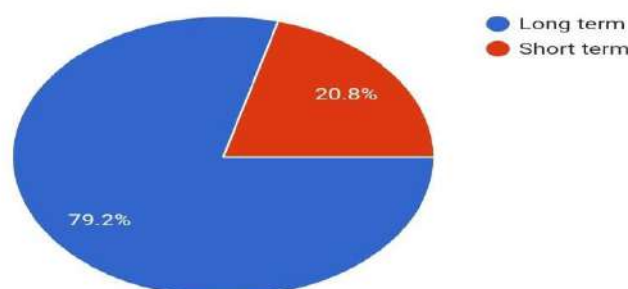
THE ABOVE PIE CHART REPRESENTS TERM INVESTMENT FOR WOMEN

The above diagram represents two types of investment which are long term and short term investment and what do women invest in the most.

Results are shown through a pie chart which is divided into 2 parts long term and short term .

The study shows that 80 respondents out of the total have selected long-term and 21 respondents out of the total have selected short term conclusion is that women do prefer to in long term Investments as its preferably the best option

CLASSIFICATION OF DATA ON INVESTMENT ANALYSIS ON BASIS OF RISKS

SR.NO	OPTIONS	NO. OF RESPONDENTS	PERCENTAGE
1.	HIGH RISK HIGH RETURNS	40	39.6%
2.	LESS RISK LESS RETURNS	61	60.4%
	TOTAL	**101**	**100%**

RISK ANALYSIS
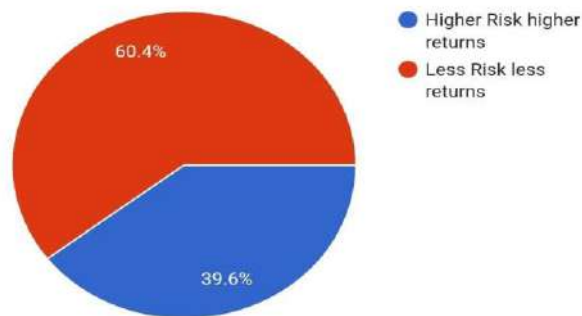
THE ABOVE PIE CHART REPRESENTS ANALYSIS OF RISK

The above diagram represents the evaluation of risk with respect to investmenting. The pie chart represents the response from the survey that 40 respondents out of the total have selected high risk high return 61 respondents have selected less risk less return majority selected less risk less return.

Conclusion is that it's better not to risk it at the initial stage.

At initial stages the women should gather proper knowledge before investing.

CLASSIFICATION OF DATA ON WHICH MARKET DO WOMEN INVEST MORE

SR.NO	OPTIONS	NO. OF RESPONDENTS	PERCENTAGE
1.	CRYPTO	19	18.8%
2.	MUTUAL FUND	69	68.3%
3.	STOCK MARKET	45	44.6%
4.	FIXED DEPOSIT	70	69.3%
5.	RECURRING DEPOSIT	40	39.6%
6.	BOND	20	19.8%
7.	REAL ESTATE	29	28.7%
8.	PPF	32	31.7%

9.	COMMODITY	8	7.9%
10.	GOVERNMENT BOND	26	25.7%
11.	OTHERS	2	2%

TYPES OF INVESTMENT
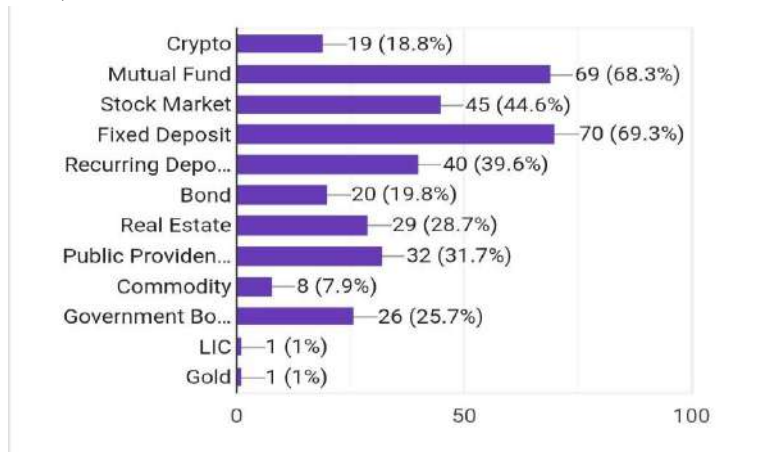
THE ABOVE BAR REPRESENTS DIFFERENT TYPES OF INVESTMENT OPPORTUNITIES

The above table talks about different investment opportunities. There are a lot of options but not all of them are known to the general public. The bar graph represents the data entered from the survey. It shows 19 respondents out of the total have selected Crypto 69 respondents have selected Mutual Funds 45 respondents have selected stock market 70 respondents have selected fixed deposit 40 respondents have selected recurring deposit. These are some of the opportunities that are known to many people. Final Conclusion is that women invest more in something that is known to general public

CLASSIFICATION OF DATA ON AWARENESS OF INVESTMENT DECISION AMONG WOMEN

In Rural areas, are the women aware about the investment decisions?

SR.NO	OPTIONS	NO. OF RESPONDENTS	PERCENTAGE
1.	YES	13	12.9%
2.	NO	47	46.5%
3.	MAYBE	41	40.6%
	TOTAL	**101**	**100%**

AWARENESS OF INVESTMENT DECISION
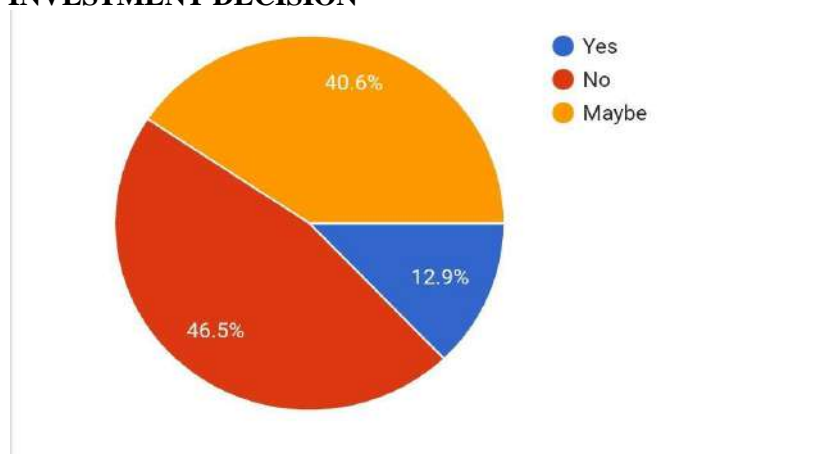
THE ABOVE PIE DIAGRAM SHOWS AWARENESS OF WOMEN OF INVESTMENT DECISIONS

The above table represents the awareness amongst women about investments in rural areas. The pie chart related to this data is divided into 3 parts yes no and maybe.

Out of 101 respondents 13 have selected yes 47 have selected no and 40 have selected maybe.

Conclusion to this Is that not many women living in rural areas are aware of investments. It would be great if the awareness reaches rural areas

HOW TO SPREAD KNOWLEDGE OF INVESTMENT

SR.NO	OPTIONS	NO. OF RESPONDENTS	PERCENTAGE
1.	Authorised calls to People to Invest	23	22.8%
2.	Advertisement through TV	59	58.4%
3.	Social media	64	63.4%
4.	Going Door to door in Rural Area	60	59.4%
5.	Others	3	3%

SPREAD INVESTMENT KNOWLEDGE
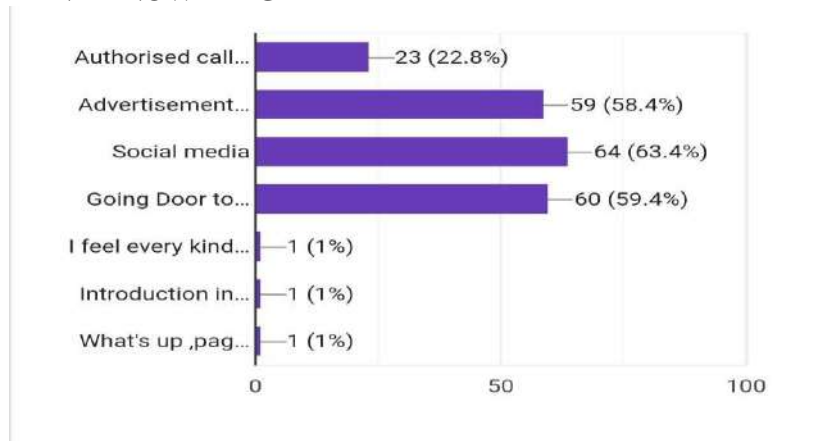
THE ABOVE BAR DIAGRAM SHOWS SPREAD OF KNOWLEDGE IN INVESTMENT

The above table represents ways to spread knowledge about investment. The study shows three major ways to spread awareness about investment. Which are advertising through TV ,social media and going door-to-door in rural areas.

The survey shows 59 respondents out of the total have selected advertisement through TV 64 respondents out of the total have selected social media 60 respondents out of the total have selected going door-to-door in rural areas.

Conclusion is as said earlier the three best ways are advertising social media and going door to door

PEOPLE WHO THINK THERE WILL BE INCREASE OF WOMEN INVESTORS IN THE UPCOMING YEARS

SR.NO	OPTIONS	NO. OF RESPONDENTS	PERCENTAGE
1.	YES	92	91.1%
2.	NO	0	0%
3.	MAYBE	9	8.9%
	TOTAL	**101**	**100%**

INCREASE IN WOMEN INVESTORS
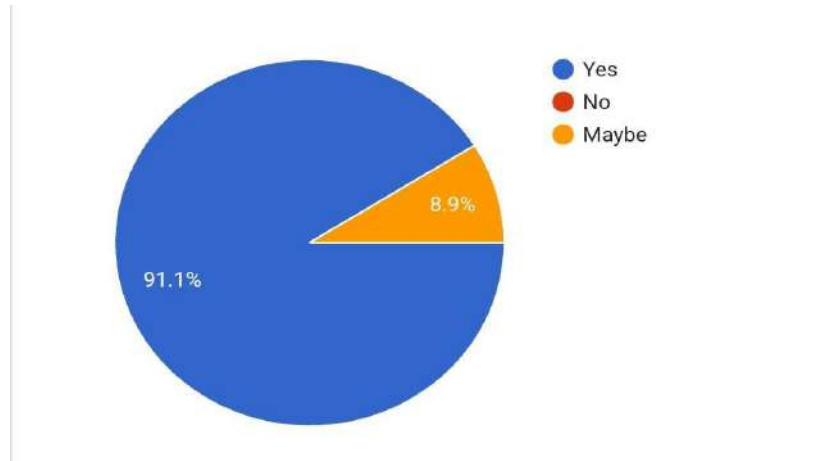
THE ABOVE PIE DIAGRAM REPRESENTS INCREASE OF WOMEN INVESTORS

The above table represents if there will be an increase of women investors in the upcoming years. The following pie chart is divided into three parts yes no and maybe 92 respondents out of the total have said yes zero offset now and nine respondents have said maybe.

The result shows the upcoming future as a lot of women will start investing as more and more people are getting aware about investing.

CONCLUSION

The study shows that maximum respondents think and agree that women can invest and can make decisions regarding their family. The recent study also helped us conclude that there was a clear response by the respondents that women do and are well aware about investments in the market. If there are female investors in the market it will empower a lot of single moms or married women to get into investing too. As it does take any hands on work or experience to invest literally anyone can invest, it can be a house maid or a working woman etc. Investing is very beneficial when it comes to income as its good long term plus a day to day income if you have retired. If women start investing they will get more knowledge and experience about the market which will help them a lot when they make decisions regarding their family and they won't need to be dependent on a male presence, they will be able to independently take decisions and will be able to earn a lot of money with less physical work. There are a lot of ways they can invest, there are websites, apps, etc. the downfall of investing is Disadvantages include high fees, tax inefficiency, poor trade execution, and the potential for management abuses. But through proper guidance and knowledge women can avoid such problems and invest safely and overcome a lot of money related problems and become successful people very soon. As we saw many female investors who have become very successful.

SUGGESTIONS

1. To spread awareness about investment through Campaigns, TV, Social media, articles, newspaper, advertisement and going Door to door in Rural areas.

2. To hire a proper financial advisor who can assist you for investing and can help make your portfolio.

3. To support every woman to invest for their families, to work for their living and become independent.

4. As it is difficult to manage household work and outside work together, women and men should divide their work equally at home.

5. Women should start investing into different types of markets thus increasing the money supply in the economy and thus uplifting the nation.

6. Before investing every woman should set a goal aside and make money through it. Proper strategies, knowledge and referring to a financial expert is must to grow in the market.

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IMPACT OF MOBILE TECHNOLOGY ON BANKING WORLD

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ABSTRACT

A banks or other financial institution's mobile banking service allows consumers to execute money transfers electronically using a mobile phone such as a phone or tablet. Unlike linked internet banking, it makes use of software, sometimes referred to as an app, given by the financial institution. Mobile banking is often available 24 hours a day, seven days a week. Some financial organizations put limitations on which accounts can be accessed via mobile money services, as well as a transaction limit. The presence of an online or information to users to the smartphone is required for mobile banking.

Keywords: Electronic bill payment, peer-to-peer payments, mobile payments, NEFT.

INTRODUCTION

The banking sector is the lifeline of the Indian economy mode. It is one of the most important financial sector and its help to increase employment for a country and to develop underdeveloped areas. It will expand communication to different locations at a low cost. If we see before in India there was no mobile technology and banking technology and it took several days to check the bank balance of person they have to stand in line but now there are too many banks in our country and we have mobile technology which made it simple to us to conduct all the transaction in few minutes.

The first bank of India was established in the medial of the 18th century. The first bank was the bank of Hindustan which started in the year 1770. Before there are 3 presidential banks. Bank of Calcutta, Bank of Bombay, and bank of madras. Bank of Calcutta was established in the year 1806 and it was renamed as Bank of Bengal in 1809 after that bank of Bengal, Bank of Bombay, and bank of Madras were merged in the year 1921 to the imperial bank of India it was a private entity. In 1955 imperial bank of India was nationalized and remodeled as the state bank of India (SBI) Recommendation by A.D godewala committee.

- 1st Bank with limited liability was Oudh Commercial Bank. This was established in 1881 at Faizabad, and it failed in 1958.
- The first bank purely managed by India was Punjab National Bank started in Lahore in 1894.
- 1st commercial bank which was wholly owned and managed by India was the Central Bank of India and it is called India's first truly Swadeshi bank.
- Bank of India was the 1st Indian Bank to open a foreign branch in London during the year 1946
- India's oldest joint stock bank (Multiple Shareholder) Allahabad bank which is still working and was established in 1965. It is also known as India's Oldest Public Sector Bank.

LITERATURE REVIEW:

The review of literature helps us to understand the present situation, background and importance of the subject subject selected for the research work. The attempt is made to take the review of literature which is already published in the form of journals, research papers, and articles.

Research done by :Mas I., (2011), "Capturing the Potential of M-Payments for the „Unbanked", This The potential for mobile phones to dramatically enhance access to financial services in poor nations is discussed in this article, as well as the primary success elements in a mobile banking initiative.

Alain Y. C., Keng B. O., Binshan L., Boon I. T., (2010) " This article discusses the potential for cellphones to drastically improve access to banking services in poor countries, as well as the key success factors in an internet banking programme.

OBJECTIVES

- To know the applications which have been used the most for online banking.
- To know how secure online banking is.
- To check the satisfactory level of using Net Banking.
- To see the issues faced by people while doing online transaction.

METHODOLOGY
The research problem is based on "Impact of mobile technologies on banking world"

Sources of data collection -

i.   Primary Data - It was collected through sample size of 60+ and has been analyses. So the data was collected by making questionnaires through Google forms. The data was collected through questionnaires by way of distributing google forms to an individual at random. It was collected through experimental methods and by way of survey.

ii.   ii) Secondary data - It is used as a theoretical content in the project of analysis and for verification. The data has been taken from websites, journals, and working papers and from reference books.

SWOC Analysis
In SWOC analysis, S stands for strengths, W stands for weaknesses, O stands for opportunities and C stands for Challenges

- Strength :-
- 24/7 fund transfer from one account to another.
- Time saving.
- Easy to understand

Weakness:-
- The biggest weakness will be that there will be a fear of hacking or online frauds by third party interference.
- There are also chances of connectivity failure from one bank to another while transferring funds.

Opportunities:-
Web designers and Cyber security departments will give employment to the unemployed to take care of online applications and websites related to the banking field.

Challenges:-

The only challenge will be to avoid the danger of cyber crime and online frauds as much as possible to keep the faith of an individual in their perspective bank and the services provided by it.

Primary Data Analysis:-

Particulars	Yes	No	May be	Total
Are you using online mode	57	4	0	61
Are you happy with your online application	52	7	2	61
Do you use Net banking	33	20	8	61
Are you happy with your Net Banking Facility	37	7	17	61
Have you ever faced any issues in doing online transaction?	41	18	2	61
Is online application is secure	30	7	24	61
Is net banking safe or not	29	9	23	61

CONCLUSION & RECOMMENDATION:-
With the development in the mobile technology the banking services were made easy and now especially after COVID -19 there has been too much of dependency on online / Mobile banking services. Security is still the issue which is not 100% resolved and therefore people hesitate in utilizing the online banking services to the optimal level. Therefore we recommend strong software's to ensure the security of the transactions and to gain the confidence of people as it has a huge growth potential in days to come.

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A MERGER OF BANKS IN INDIA – AN OVERVIEW AND ANALYSIS

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ABSTRACT
The main purpose of the paper is to study the merger banks of India and analyses the merger of banks in India. Secondary data will be gathered as part of the research methodology. The various types of banks merge in India. The research is related to the needs of mergers of banks and their impact on the Indian economy. The important finding results show the banking industry's benefit to the economy and, secondly, the analyzed bank improved its performance.

I. INTRODUCTION OF MERGER AND ACQUISITIONS

This concept is a merger, which is used as an instrument of growth or expanding business strategy. They are being used in fields such as information technology, telecommunications, and business outsourcing, as well as traditional and nontraditional businesses, to overall gain strength and expand the customer base. The competition expands into new markets and product lines. This merging of businesses is undertaken to gain access to the market through developing and establishing a brand that is the result of the market share price increasing, reducing the tax and acquiring competence to set off loss against profit by another entity

An event like this is a great example of what the modern political environment represents. The historic merger of Mittal Steel and an unsolicited hostile bid for the recolor sparked outrage in Europe, with politicians, ministers, and even ordinary citizens taking part in the debate. The court countries of France and Luxembourg have been embargoed and accused of protectionism. Meanwhile, after the steel markets, like Japan's Nippers Steel, this is the third-largest company in the world. Following that, Mittal Company and Recolor Company used the poison pill strategy to avoid future hostile takeovers

wave of mergers and acquisitions over the last century. The value of merger and acquisition deals in the United States increased dramatically in the 1990s, rising from $200 billion in 1992 to $1.75 trillion in 1999.In 1998 alone, there are currently 12, 356 deals in the works.

The United States announced that the goal is a total value of $1.63 billion. This is the value of the merger and acquisition deal struck in the European country in 1999, which was nearly 1.5 trillion euros at the time. Based on the historic volume of mergers and acquisitions from 1995 to 2000, the total was more than $12 trillion. Global merger and acquisition values amounted to 3.8 trillion in the year 2006. For example, from 1996 to 2001, US companies created titanic business entities by announcing 74, 000 acquisitions and 57, 000 alliances. It said during the six years of the COO, they signed an acquisition or partnership each day and drove up the value of the acquired. Movement of mergers and acquisitions

MERGER AND AQUISATION OF BANK OF INDIA
History
In India merge of bank is the started by the order in 1960. Protect by the customer interests and weaker banks. The after-post liberalization period create an Indian bank is the global league had been continuing the 1990. Path of creating largest global bank moving. Government approve by the merger five associate bank with sib. In January 2017.After month of March, the cabinet meeting approval passed by the merge of BMB.

Merger & Nationalization during the period from 1961-1969
The 1961-1969 merger and nationalization period are called as rationalization period. This nationalization period in 1969 14 privates bank is nationalized. 46 any mergers took place mostly is orderly in private bank is low perform proved is the success move by the unfirming banks.

The period of 1969 to 1991
This period is called the "post-nationalization period." In this period, six private banks were nationalized in the 1980s. In the same period, 13 merger banks were divided between the public and private public sector banks. The period of 1991–2015 liberalization is greater than the FDI investment allowed by the bank.

Bank mergers (1993-2004)
Oriental bank of commerce merge by the global trust bank in 2004. After the net worth had wiped off and handled by the oriental commerce bank million depositors and south India market. Punjab National Bank took over the New Bank of India in 1934.Benaer bank with Bank of Baroda proved the weaker bank

Bank mergers and consolidation in 2008-2010
Following the merger of the SBI process, a rational network of branches was established. Relocating the branch is the way to maximize reach.

In 2008, SBI Bank first merged with the State Bank of Saurashtra. After two years, in 2010, Indore merged with the state bank. The approval of the plan by the board of directors of sbi is the approval of the plan by sbi shareholders. SBM and SBT shareholders are similar in that they get 22 shares for every 10 shares of SBI.

Following the merger of the SBI process, a rational network of branches was established. Relocating the branch is the way to maximize reach. This, according to SBI bank, helped the improvement and stability. The State Bank of Patiala and the State Bank of Hyderabad merged, and the SBI approved the acquisition scheme. SBI bank does not share any proposals.

Consolidation of Banks (2015-2017): Bharitiya Mahila Bank and five associated banks were merged into the SBI. Main vision of the   strong bank is the rather by a greater number of banks. State bank under five associated banks merged by the state bank of India. In April 1 2017 five associate bank and Bharitiya manila bank part of the SBI. Associated is two other banks is state bank of Indore. And state bank of saurashtra is already merge by the SBI. After merger situation is the increased the customer.

Current affairs mergers of banks: The most after ten months by current government of India has consolidated by the 10 out of 4 banks. finance minister sitharaman in 2019 announced by the mega merger was made by union. Financial new year circular of merger notified by the RBI. More capital efficiently manages by the merger. PSB amendments is based on the regional factors and bad loan.

After the bank mergers the is the 12 public sector and state bank of India is the available in India. The public sector bank government capital worth increased in 55000 crores worth. Reduce the public sector banks 21 to 12 is for the creating 3 to 4 global sized banks.

Sr no	Acquired in	Amalgamated banks
1	Punjab national bank	1.Oriental bank of commerce 2. United bank of India
2	Bank of Baroda	1. Vijaya bank 2. Dena bank
3	Indian bank	Allahabad bank
4	Canara bank	Syndicate bank
5	Union bank of India	Corporation bank
6	State bank of India	1. State bank of Jaipur &Bikaner 2. State bank of Hyderabad 3. State bank of Mysore 4. State bank Patiala 5. state bank of Travancore 6. Bhartiya Mahila bank.

Need of merger and acquisitions of India.
The 54-bank merger announced in 1995 focused on several facts and diversified. The geographical activities are the primary focus of merger partners. Facts and long-term performance are the focus. Liberalization, privatization, and advanced technology are the banks. This is the main purpose of the face of global competition. This has the greatest impact on the merger and acquisition of bank employers. This part's negative impact is due to merger banks' employees resigning. This is due to factors such as low pay, dissatisfaction, and so on, but the negative impact of mergers and acquisitions is transformed into a positive impact. The successful outcome in the business increased the employee's salary and satisfied the employee. Indian banks' view of the merger trend is that the stakeholders and managers will be bank.

Impacts of the merger and acquisition Indian banking sector and economy.
The Indian government has more decisions based on the development or improvement of a more robust system. But the government is the decision-maker at any time. This has many effects at the gross root level. The government's policy on the inflow and outflow of the economy changes on a regular basis.

The merger and acquisition impact on the Indian banking sector have both a negative and a positive impact. Negative impacts include employee issues, risk of public debt, chances of a bank going bankrupt, very challenging for the managed people and different bank cultures, and the risk of many frauds and robberies in the

banks and public sector banks reduced. The Indian economy is driven by capital that is managed quickly and bitterly

Case studies of Merger of Indians banks.

1) Bank of Baroda acquired in Vijaya bank

Vijaya Bank amalgamation promises to leverage the specific skills of each bank. Customers of Dena Bank will see changes in their ways of carrying out financial transactions. There will be a 1% increase in the number of public sector banks in India. The main concern of the banking sector presently is non-performing assets. To a certain extent, this can be controlled. However, if the public sector banks were reduced by the concept of privatize or mergers, banks could use economies of scale, but essentially, the assets would be pulled into NPA's.

2 Canara banks merged in syndicate bank.

Prior intimation of board meeting Amalgamation of Syndicate bank into Canara bank Gazette notification of scheme of amalgamation the amalgamation of syndicate bank into Canara bank came into existence. The main reason for the banks' merging is the Canara and syndicate's mainstay with scale for the economy. The capacity of the increase is in the big banks. big banks with enhanced capacity to increase credit and operational efficiency gains to reduce the cost of lend offerings with enhanced customization and a better ability to raise resources from the market. The total business of Canara would be 15.20 lac crore with branch strength of 10,342 and a deposit base of 1.2 ban rupees

3. Hdfc bank acquired the centurion bank of punjab

The rib's approval is linked to the merger of HDFC and CBO. The HDFC bank is provided by the merger with opportunity scale, geography, and management width. The Centurion Bank aims to increase synergy and reduce the organizations' allure. of Punjab and HDFC Bank combined the legal entity and improved the banking products. Hdfc Bank and Asset Size increased in the ropes by 1,09,718, branches rise increased by 1,148, and ATMs will be increased by 25,381.

4. ICICI acquired with bank of Rajasthan

The Reserve Bank of India (RBI) approved the merger of the Bank of Rajasthan with ICICI Bank. Customers of Bank of Rajasthan can enjoy the same benefits as all Icecap Bank customers. The minimum Monthly Average Balance (MAB) requirement and other product features of your account will be aligned to the equivalent available ICICI bank savings/current account variant effective January 1, 2016.

5. Union Bank of India acquired with Andhra bank

The amalgamation of Andhra Bank and Corporation Bank into Union Bank of India Scheme, 2020 will come into force on April 1, 2020. The Board of Directors of the Transferee Bank and Transferor Banks at their meeting held on March 5, 2020, approved the following equity share exchange ratio. The Board of Directors of the Union Bank of India has approved allotment of 2,98,40,25,503 equity shares (2,97,88,35,104 shares in demit mode and 51,90,399 in physical mode) to the shareholders of Andhra Bank and Corporation Bank.

II. REVIEW AND LITERATURE

(Neej Senjer, 2021)**:** The organization's current situation calls for an increase in merger and acquisition activity. With so much competition, there are advantages to be had. The organization's products are initiate, which is the strategic strategy. The main focus of the study is two merger bank analyses. The quantitate method is used in financial indicators, hypotheses, and trends. The validation hypothesis was that the test permuted the results of this product trend analysis show the growth of all financial inciters. The test of hypothesis analysis shows that the financial parameters are the increment and discernment for the acquired. This study finds the advantages of the acquirer and validates the successful merger. This research paper aims to find the quantities analysis of the merger.

(Neeraj kumar, 2019) : The purpose of this research paper is to investigate the impact of efficiency on the impact of an Indian bank merger. This research accomplished the primary goal of being a major bank, one of five banks in the India case study from 2000 to 2005. This was accomplished through the pre- and post-merger of efficiency. The secondary data that was displayed is the secondary data. The mergers are the benefit of this research study. Four mergers are expected to merge Oriental Bank of Commerce with global trust banks. This study discovered that market mergers boosted and forced merger delicts aided this study. I find this suggests avoiding the obligatory. Furthermore, the merger banks must be improved.

(Kotapati srinivasa Reddy, 2013)**:** Emerging economies have acquired prominence in academic studies, particularly in the fields of economics and finance, as a result of globalization and the liberalization of international economic policy reforms. In Asia's rising markets, India is second only to China. As a result of

economic policy changes introduced in 1991, a number of industries, notably the banking industry, are being developed and reformed through mergers and acquisitions (M&As). In this study, we analyses India's economic and financial changes, the M&A market from 2006 to 2010, and other policy-related issues. In this context, we look into the 2010 investment banking amalgamation between Axis Bank and Emma Securities. To achieve this, we use the event research approach to conduct ex-ante analysis and provide lawful ex-post ideas for financial development, economic growth, and banking.

(Avjit bakshi, 2017) **:** The framework of the merged public-sector banks' proposed deal by the Indian government is to order the basis of the state-owned capital. This is the main objective of this article. The measurement conducted by the two layers is that the public sector bank is the hypnotical merger after and before. The initial layer of the problem is the hypothesized merger of the public sector banks. The Narsimha committee suggests this. According to the restructuring assumption, the loser bank is the large asset-sized bank. This article will provide you with the comparison between the large bank and the small bank after the merger, attempting the second tier of the return on scale

(N.M Leepsa, 2012): Amalgamation is the inorganic growth strategy. Its importance in today's corporate world arises from fierce business competition and the environment. This article seeks to study the trends in mergers and acquisitions. (M & A), especially with respect to manufacturing companies. Although mergers and acquisitions are counted among the 4,444 companies, good performance is expected after mergers and acquisitions, one of the growth strategies. He also changed. Therefore, it is necessary to study the trends of mergers and acquisitions and the trends after mergers and acquisitions. Post-merger performance compared to pre-merger in terms of profitability, liquidity, and solvency. The scope of the study is limited to companies belonging to the manufacturing sector in India. Statistical tools used include descriptive statistics and paired-sample t-tests.

(jaskarn Singh Madray, 2020) **:** As of April 1, 2020, India had 27 State-owned Enterprise Banks (PSUs), but now the number has been reduced to 12 as 10 public sector banks (PSBs) have been merged into 4 megabanks. The central government of India has taken this step to strengthen India's banking sector. This study aims to analyze the possible impact on the banks and stakeholders involved in these causes that led to these mergers. To study PSB and Unification in India. Analyze the conditions leading to the merger of public sector banks. Analyze the possible impact of this merger on the Indian banking sector. The analysis and interpretation of the data and literature collected are based on the merger of public sector banks

(Sinha, 2011): This study is the Indian banking system is role play of the financial advancement of the nation. The past 3 years many changes and development of the infant banking sector. This sector changed by working strategy. As the Narayanswamy (2017) pointed out, monetary valuation is a method of reviewing an organization's annual report to provide by the meaningful and legal data to leaders. The incorporated company must, in all cases, verify the execution of the target company's budget because the merger affects currency position and abundance, all things being equal. Since a merger can have a significant effect on the monetary performance of the acquiring company in any way, either positively or negatively, the acquirer should thoroughly evaluate the target company before committing to a merger. merger transaction. Again, mergers can lead to poor financial performance.

(Goyal, 2011): Because the world of competition is like a jungle where monsters devour smaller creatures, one must be skilled enough to triumph. There are indications that huge corporations have amalgamated smaller competitors in the past. Themselves. This article offers a review of mergers in the banking business. sparked by the Bank of Rajasthan Ltd. and ICICI Bank Ltd. cases the purpose of this study is to investigate the reasons driving bank mergers and acquisitions. with a focus on the Indian banking industry to this end, a sample of There have been 17 bank mergers since deregulation. This research is based on based on the number of branches, geographic market penetration, and as a result of the merger This article, in addition to its financial features, Because the world of competition is like a jungle where monsters devour smaller creatures, one must be skilled enough to triumph.

(krishna A Goyal, 2012) **:** In emerging economies such as India, the banking sector is one of the fastest expanding sectors. M&A is recognized one of the most effective tools for expansion, piquing the curiosity of academics and researchers alike. The Indian economy has experienced rapid expansion in recent years, and banking is one of them. his purpose of this study is to highlight broad emotions, difficulties, and chances in the Indian banking industry. This article is broken down into three sections. A first section gives an overview of the Indian banking industry and its current state. The second section examines the Indian banking industry's different difficulties and prospects. he third part of the section says that India's banking product and marketing

strategies must be prioritized in order to gain a lasting competitive advantage over national and international banks.

(Rajesh kumar yadav, 2020) : last ten years, there has been a growth in the number of non-performing assets Chennai Bank Ltd. is India's largest commercial bank, with over 2,875 small and big branches spread across the country's southern regions. It was founded in 1966, shortly after the nationalization of India's private banks. The Nawabs of Bhopal created Bhopal Bank Ltd., one of India's oldest banks. It began functioning under the auspices of the Indian government after nationalization. Over the, a decrease in the participation of some public sector banks, and an expansion of the private sector's position as banks or non-banking financial firms, among other things. Consider some few observations that led to a new concept of combining public sector banks. This case study examined why the Government of India made the strategic decision to merge Chennai Bank Ltd. and Bhopal Bank Ltd., as well as the changes

III. RESEARCH AND METHODOLOGY

The exploratory character of the research led to the design of this research study, which took into account the objectives, scope, and objectives coverage. Books, articles, research papers, journals, newspapers, and websites provide as secondary data sources for this reach study.

IV. DATA ANALYSIS

This research was collected through secondary data. The secondary data is collected by the articles, journals, research papers, websites, and case studies. While collecting this data, I noticed that due to the increase in mergers, the increasing merroirs is the growth of the economy. And competition is increasing in today's banking sector. This merger benefits customers, employees, and the government. These are the three most important factors for the merger's success.

V. CONCLUSION

Mergers of banks are a thing of the past. The size has the potential to be dangerous. A monopoly will result from a merger. People will have a tough time finding work. The issue would be severe because India has a population of over a billion people. If we want to put a stop to it, the government could put certain restrictions on bank mergers so that the economy is not jeopardized in the future

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STUDY ON IMPACT OF COVID-19 ON CAREERS IN INSURANCE SECTOR IN MUMBAI REGION

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ABSTRACT

The main purpose of the paper is to study the impact of covid-19 on careers in insurance sector in mumbai region. Secondary data will be gathered as a part of Research Methodology.The covid-19 pandemic has caused a massive increase in the economy, riches, and standard of living. This pandemic has impacted every industry, including the insurance industry. The country's population is declining as a result of the instability. The goal of this study is to look into the impact of Covid -19 on the Indian insurance industry and the responses that insurers and the Insurance Regulatory and Development Authority of India (IRDAI) have done to protect policyholders.

Keywords: INSURANCE, IRDAI, ECONOMY, COVID-19

INTRODUCTION

Any country's economic development is dependent on the insurance industry. A well-developed insurance sector encourages economic risk-taking by providing some protection in the case of an unplanned, loss-causing accident. It also offers much-needed support to family members in the event of death or illness. Because insurance firms' assets under control reflect long-term capital, they also serve as a pool for long-term projects like infrastructure development. India's insurance industry has grown in pace with the nation's gross Domestic product. Several insurance businesses in the country, both public and private, are growing their

Coronavirus illness, now known as COVID-19, has reached pandemic proportions over the world. It was declared a pandemic by the World Health Organization (WHO) on March 11, 2019. The current pandemic's rapid spread, compared to previous pandemics, has resulted in a total lockdown of nations, travel bans, public gathering bans, and office closures. Businesses have closed over the world, and people have lost their jobs and lives. A worldwide recession is the current state of affairs. In most cases, the insurance business and governments around the world have become beacons of hope for people who are on the verge of extinction.

HISTORY OF INSURANCE

The evolution of the contemporary industry of risk insurance, particularly for cargo, property, death, automotive accidents, and medical treatment, is traced in the history of insurance.The insurance industry assists in the elimination of risks (for example, when fire insurance providers demand the implementation of safe practises and the installation of hydrants), spreads risks from individuals to the larger community, and serves as a major source of long-term financing for both the public and private sectors.

If security is a burning coal that could catch fire at any time, insurance is the fire extinguisher for humanity. The basic concept of insurance—distribution of risk among many people—is as old as humanity itself. People have always been apprehensive of risk, whether it was hunting massive elk in a group to spread the chance of being gored to death or delivering freight in numerous caravans to prevent losing the entire shipment to a marauding tribe. Countries and citizens must spread risk among a wide number of people and transfer risk to entities capable of handling it. This is how insurance came into being.

REVIEW OF LITERATURE

Alon, T., Doepke, M., Olmstead-Rumsey, J., & Tertilt, M. (2020).

The present COVID-19 pandemic has significant consequences for gender equality, both during the crisis and after it has passed. In comparison to "normal" recessions, which damage men's employment more severely than women's employment, the job loss caused by social distancing policies has a significant impact on industries with substantial female employment percentages. Furthermore, school and childcare facility closures have resulted in a tremendous increase in child care needs, which has a particularly negative impact on working women. Because of the large rewards to experience in the labour market, the consequences of the crisis on working mothers are likely to last. Beyond the present crises, there are countervailing forces at work in the job market that may eventually promote gender equality.

Bick, A., Blandin, A., & Mertens, K. (2020)

We document the change of commuting behaviour in the United States over the length of the COVID-19 pandemic using new survey data. After the outbreak, work from home (WFH) increased dramatically and continuously, with some workers benefiting far more than others. We suggest that the observed differences in

WFH transitions is consistent with possibly more permanent changes to work arrangements in particular occupations, rather than just temporary replacement in response to increased health risks, using theory and evidence. In line with rising WFH acceptance, many more workers, particularly those with a higher education, plan to WFH in the future.

Wang, Y., Zhang, D., Wang, X., & Fu, Q. (2020).
The COVID-19 epidemic has had a significant influence on the insurance sector. To investigate how COVID-19 has impacted China's insurance market, we use monthly regional data over the period and fixed-effects models. COVID-19 has reduced commercial insurance premium income, monthly year-on-year premium growth rate, insurance density, and insurance depth, according to the study. The negative effects on property and personal insurance are statistically significant in both cases. The negative impact of the pandemic on the insurance market can be mitigated by increasing the level of social security and digital insurance.

Öztürk, Ö., Şişman, M. Y., Uslu, H., & Çıtak, F. (2020).
Until the world was struck by a pandemic in the twenty-first century, COVID-19, tourism was one of the world's most important markets. Using text mining tools, this study tries to depict the reactions of passengers during pandemic trends. Around 75,000 remarks are collected from the TripAdvisor forums between December 30, 2019 and March 15, 2020, and 23,515 examples from the US, Europe, and Asia forums are used for analysis. The modern service and industrial society's cultural and social developments, as well as technical and economic developments, particularly in the transportation system, resulted in massive shifts in tourist demand. Other factors, such as increasing geopolitical stability and the opening of many national borders, are, nevertheless, contributing to an increase in international travel overall (Franklin, 2003; Weaver, 1998). Tourism was one of the world's fastest-growing markets, despite a fall in growth rates, until the globe faced a new brand epidemic in the twenty-first century.

Uğur, N. G., & Akbıyık, A. (2020).
COVID-19 has impacted a wide range of companies and sectors, causing significant change in a few of months. This report examines the significant growth and adoption of digital health technology in the healthcare industry over the last year It focuses on individual changes in and around the major cities Policymakers and health insurance firms are among the stakeholders who have moved quickly to establish more inclusive policies Insurance companies are willing to pay for remote services to some extent if policies for digital health technology are in place. There are a few Several patient-related problems had previously hampered the ordinary man's acceptance of digital technology. Moreover, While many of the variables remain in place, changes in social and physical infrastructure have caused and pushed some of them to change. People have become familiar to the wide usage of digital health technology. Hospital and healthcare professionals, who have been struck harder than many other professionals, have adopted digital health technology more quickly than ever before, and it has aided in the recovery process. Maintain social distancing to avoid further infection spread by providing resources for patients who require in-office care.

Bhambere, H. S. S., Abhishek, B., & Sumit, H. (2021).
COVID-19 has impacted a wide range of companies and sectors, causing significant change in a few of months. This report examines the significant growth and adoption of digital health technology in the healthcare industry over the last year It focuses on individual changes in and around the major cities Policymakers and health insurance firms are among the stakeholders who have moved quickly to establish more inclusive policies Insurance companies are willing to pay for remote services to some extent if policies for digital health technology are in place. There are a few Several patient-related problems had previously hampered the ordinary man's acceptance of digital technology. Moreover, While many of the variables remain in place, changes in social and physical infrastructure have caused and pushed some of them to change. People have become familiar to the wide usage of digital health technology. Hospital and healthcare professionals, who have been struck harder than many other professionals, have adopted digital health technology more quickly than ever before, and it has aided in the recovery process. Maintain social distancing to avoid further infection spread by providing resources for patients who require in-office care.

Dalton, M. (2020)
Using the Current Employment Statistics survey and the Current Population Survey microdata, this research investigates the short-term local labour market impact of the dissemination of COVID-19 in the United States. It takes advantage of the longitudinal nature of both surveys to track changes in employment for businesses and household members. After controlling for different indicators of government involvement, I match the survey respondent to the measured local incidence of confirmed COVID-19 cases, utilising confidential information on county of location, to estimate the impact of the local incidence of the virus. I discover that counties with a

greater incidence of COVID-19 have the most job losses.These effects differ by industry: job decreases in leisure/hospitality and other services are high in comparison to the virus's incidence, but employment declines in construction, transportation, and warehousing are more dependent on the virus's local incidence. The virus has had little effect on the finance/insurance industry, which is a relatively telework-friendly industry. As government restrictions are loosened and business owners begin to consider whether to open their enterprises while the virus is still active in the United States, these short-term employment effects have ramifications for future employment trends.

Sharan, N. (2021)

The COVID-19 epidemic has resulted in a tremendous increase in economic, wealth, and livelihood uncertainties. Almost every facet of business models is now fraught with uncertainty, particularly in the healthcare and insurance industries. The ability of health-care systems to meet an extraordinary challenge is one of them. The amount to which the epidemic has shifted consumer buying habits, insurers' attitudes about health risks, and so on.Availability of suitable and effective options for primary care needs are among the factors that contribute to a challenging view toward future risk. The goal of this article is to examine the influence on the health insurance industry and continuously changing claim patterns in the pre- and post-COVID eras, because it is critical to investigate forward-looking ways to reduce uncertainty and prepare for future digital changes.

Spurk, D., & Straub, C. (2020).

The COVID-19 pandemic is a global disaster that has impacted many parts of people's lives. To prevent the spread of COVID-19, most of the affected countries implemented a variety of measures, including lockdowns, company closures, cleanliness rules, social distancing, school and university closures, and mobility tracking. Short- and long-term consequences on people's working life are expected from these measures. Most media stories, on the other hand, concentrated on the impact of the COVID-19 pandemic on changes in work arrangements (e.g., part-time job, flexible location and hours) for ordinary employees.

The workers in flexible employment agreements are the topic of this article (e.g. temporary agency work and other forms of subcontracted labor, as well as new forms of working, such as in the gig economy). We will specifically discuss (a) how the COVID-19 pandemic may affect the work and careers of individuals in flexible employment relationships; (b) how to examine period effects of the COVID-19 pandemic on the work and careers of those individuals; and (c) how the pandemic may contribute to the ramifications of flexible employment relationships.

Dutta, A., & Singh, A. (2021)

The present study has been designed to analyse the general public's perceptions of health insurance providers and policy characteristics, as well as to segment them depending on their beliefs. This research used a mixed-methods approach. The responses of fifty health insurance subscribers were evaluated. Focus group discussions, the Henry Garret ranking system, factor analysis, and cluster analysis are some of the data analysis techniques used. According to the findings of this study, health insurance companies should design policies that include home health, telemedicine, and income protection elements. Due to Covid-19, existing users should be offered customized options to avoid consumer switch.

RESEARCH METHODOLOGY
OBJECTIVES OF THE STUDY:

1. To estimate the impact of COVID-19 on the insurance industry in mumbai region.

2. To estimate the positive impact of COVID-19 on the insurance industry in mumbai region.

3. Impact of covid on the health insurance industry, general insurance & life insurance industry

SCOPE:

1. The scope of this research is to do a detailed study the services given by the impact of covid 19 in insurance industry.

2. It is based on secondary data.

3. The researchers have tried to find out above the current impact as well as past and future scope.

The research Design of the research study considering its objectives, scope and coverage is exploratory as well as descriptive in nature. Researcher has conducted Secondary Data as a source of information

The Secondary data has been obtained from the published, unpublished literature on the topic and from the journals, books, and website.

DATA ANALYSIS

This research was collected through secondary data. The secondary data is collected by the articles, journals, research papers, websites, and case studies.While collecting this data, I noticed while collecting data, I noticed due to covid-19, insurance industry   And competition is increasing in today's insurance industry. In this pandemic situation most of the people prefer health insurance and life insurance for their safety. There all are the important factors.

CONCLUSIONS

During the epidemic, the insurance industry experienced both a rise and a reduction in business. Insurances like car, marine, fire, home, travel, airline, and other types of insurance are witnessing a large decline in business, whilst health insurance is seeing both an increase and a decrease in business. In the health insurance market, the number of claims has increased, resulting in a drop in cash flow, but the number of new clients who have purchased insurance has increased, suggesting corporate growth.

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A STUDY ON MICRO SERVICE

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ABSTRACT
Micro services is a new trend or upcoming feature to increase or rises fast from the enterprise world. The design principles around micro services have been identified, inmicro service. In micro service the clear view of existing research solution is difficult. In micro service we systematically define in a micro service architecture for a classification of categorized research. We synthesize the obtained data and produce a clear overview of the state of the art. In Microservice they give a clear plan related to future research and also use for the applications of architecting micro services.

Keywords: Microservice, monolithic architecture, micro service architecture

INTRODUCTION
Microservice is a methodology to develop the service based application. Micro service is a process or step of implementation of Service-oriented Architecture (SOA).in that architecture or service application is group of interconnected service. Where each micro service will help to only one business need.

Microservices is an architectural approach to create the cloud applications. In micro service application is fixed in a set of services. In microservice service runs into own processes and micro service also communicates through application programming interface. The evolution or development of the cloud micro services architecture development higher than twenty years ago. Architectural design of micro service it is used for building a distributed application and it isalso used in containers. The function of application operate independent service and they get their names. Microservice architecture allows for each service to without interrupting to other services they update and scale the services.

MAIN CONTENT
Monolithic Architecture
Monolithic architecture is like a big container where all the software component of an application are assembled together and tightly packaged.

All these component dependent on each other.

For eg.:- In server side application they execute a specific logic of domain. it will retrieve an renew data from database and at the same time occupy the hypertext markup language view sent to the browser. It is basically big container it is not divided or parted into small small service or not divided into small component

In E-commerce website like amazon or flip card we visit this website quite often.in this website we have option like customer service, right product and card service which customer can access through their browser and you launch the application it is deployed as a single monolithic application, in this there is only one single instance.so we have customer, right, card service and when you deploy all these service it will be basically a monolithic application.

Advantages
1. It is very uncomplicated to deploy

2. Development is really easy and one direction

3. It is simple to deploy because you have to deploy executable file at run time to launch application

4. This executable file is word file now days

Disadvantages:
1. Large and complex application'

2. Complex to understand and modify such application

3. Slow development

4. Very hard to adopt new framework.

Microservice Architecture:

Microservice is a self-contained process which always different and unique business capabilities. Suppose we have large application built using this architectural pattern it can be broken down to small multiple services which together axis one large system but behind the background it is micro service.

We have multiple services on all of these services. They don't share data structure but they communicating through apis now each microservice can focus on only one single business capability which definitely leads to a better quality and it is easy to understand.

Example: in monolithic architecture all component in a single module but in microservice architecture all component are divided into separate module which communicate with each other using well defined interface. Communication between micro services is a stateless communication where each pair of response and request is an independent transaction and because of these microservice can communicate effortlessly.

Each microservice is responsible for its own data model and data because of interaction with each micro service is handled by different instance unlike monolithic architecture where we had only one instance. We have multiple standard for different different micro service .suppose we have three microservice like customer service, productservice, card service each of them include their own instances. They have their own data model and they also include their own data.

Advantage of Microservice architecture:

1. Microservices is Independent development

2. Microservices are Independent deployment

3. Microservices are independently scalable.

4. It is simple to maintain

CONCLUSION

To overcome the problem of monolithic architecture the micro service architecture is a distributed design approach. Microservices help to scale applications and also help for the organizations while improving cycle times. However, they also come with group of challenges that might add additional architectural problem and operational burden.

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(Author name: Mihai Baboi,Adrian iftne,Daniela gifu)

TO STUDY THE IMPACT OF TOURISM ON THE ECONOMY OF INDIA

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ABSTRACT

This study is being conducted to examine the socio economic of India .To analyze whether people want to know more about beautiful hidden gems of India .And the ways that we can improve Indian tourism within India. The tourism business is the most effective means to strengthen the economic and financial stability of a country. In a developing country like India this business acts as the backbone to improve the level of happiness of its residents. Tourism not as it were including the living mirthfully. Subsequently, the tourism division can be instrumental for the economic advancement of national riches. It has the potential to invigorate other financial segments through its in reverse and forward linkages and cross sectoral synergies with divisions like horticulture, cultivation, poultry, crafted works, transport, development, floriculture etc

Keywords: Tourism, Economic Development.

INTRODUCTION

India has a plethora of undiscovered treasures. And a very few percent of India has knowledge of it. Many people today are seeking a serene vacation from the buzz and bustle of daily life. When you schedule a trip to an unknown location to relieve the stress of your daily routine, you feel stress free, calm, and joyful on the inside as well. You may have visited popular destinations in India, but there are numerous secret places you are unaware of.

India is a land of diversified culture, finest architectural heritage, remarkable landscapes and spectacular beaches and mesmerizing mountain ranges. The Indian peninsula is categorized into four regions, Mountain Zone, Plains of Ganga and Indus, desert region and southern peninsula. Being the seventh largest country in the world, India has a very unique presence and existence from other countries. India offers a vast range of tourism choices, with diversified culture, heritage, tribes, cuisine, faiths, art and craft, land and nature, people, adventure, sport, spirituality, history to name a few. It is surprising that one can experience the change in culture within 50 km distance.

Tourism in India is significant to the country's economy and is growing rapidly. The tourism sector can play an important role as a driving force of economic development. The most essential economic element of tourism-related activities is that they help developing countries achieve three high-priority goals: revenue production, employment, and foreign-exchange earnings.

In certain ways, nature and heritage tourism development differs from regular tourist hotel development in terms of investment requirements. There may be a higher requirement to increase access to the attraction site or facility, as well as a development facility that does not harm any sensitive habitat or historic site.

Tourism surpasses other economic activity as a direct and indirect source of employment and income.

LOST GEMS OF INDIA

There are 40 World Heritage sites in India that will be acknowledged by UNESCO in August 2019.These are places of importance of cultural or natural heritage as described in the UNESCO World Heritage Convention, established in 1972.

But what about the unknown lost historical monuments that have become unheard of?

We have covered a very few of the lost Indian historical gems from all the corners of our India to make people aware about such places.

1. **Global Vipassana Pagoda (Mumbai)**

The Global Vipassana Pagoda is declared "One of the **seven wonders in Maharashtra ''** by Maharashtra Tourism Development Corporation (MTDC). A rare opportunity to learn in partnership with ABP Majha, a Marathi news channel; after they reviewed 350 destinations.The results of this selection were declared on 6th June 2013. You must visit Global Vipassana Pagoda to witness the developments and its unique nature for getting selected as one of the seven wonders of the state.**A rare opportunity to learn Anapana Meditation in 10 min near the Buddha's relics at Global Vipassana Pagoda.** There is no entry fee or charge to see the Global Vipassana Pagoda .There is no charge for the tour guides at Pagoda.

1. **Main Dome Pagoda with Visitors' Gallery:** Free information pamphlets on pagoda are distributed here.

2. **North Pagoda:** Venue for 20 Minute Anapana courses.

3. **Ashoka Pillar- Fountain & Lotus pond:** to suggest spread of dharma in all directions. A beautiful fountain and lotus pond

4. **Gate No. 1 :** is one of the largest sliding doors carved in teak wood from Myanmar.

5. **Dhamma Pattana, Guruji Shri S N Goenka Ji's Residence & South Pagoda–** 10 Day Course Center can be seen from outside. The Principal Teachers' Residence has beautiful Burmese designs. South pagoda also has meditation cells for the course participants.

6. **Wall Mountings:** have detailed explanations on Vipassana and related topics such as Pagoda, Addictions, Society, Executives and Science etc.

7. **Video Gallery:** (Free Entry to watch short 17 min videos of what is Pagoda and Vipassana & how it will benefit you) Bilingual –Hindi & English.

8. **Photo Gallery –** Pictures to mark milestones of Pagoda Construction

9. **Books & Souvenir Center –** For a good collection of VCDs, CDs, photographs, Books, idols, T-Shirts, paintings and other souvenirs

10. **Painting Gallery –** Paintings depicting stories of people who benefitted from Vipassana practice in Buddha's time. Audio Tours in Shri SN Goenka Ji's voice. Story books of the same paintings with pictures available.

11. **Myanmar Gate –** Gate with Burmese designs to express gratitude to Burma & Sayagyi U Ba Khin

12. **Buddha Statue –** to honor Buddha as a great spiritual scientist who taught Vipassana & nature based teachings for the benefit of humanity.

13. **Bell Tower –** The bell to be stroked at the exit to spread loving compassion for all. There is a Burmese belief indicative of an early return to Pagoda to experience the true benefits of Vipassana Meditation.

14. **Gong Tower-** Burmese designs with devas to announce the spread of dharma for the benefit of all.

15. **Food Court –** For refreshment needs of the visitors and Burmese Murals for Culture & Art enthusiasts to learn about Burmese customs.

2. Gokarna Beach, Karnataka

Gokarna is known as one of the seven important Hindu pilgrimage centers.The Gokarna beach forms the coast of the town and is followed by Main beach in the northern direction while the other four beaches lie to the south. Gokarna Main Beach is mainly used by Indian pilgrims. Kudle and Om are around 6 km from Gokarna town along a muddy hill; they are accessible by rickshaw or foot. Half moon and Paradise are beyond Om beach

and are accessible only by trekking or boat. Om beach is named so because it is shaped like the auspicious ॐ Om symbol. Om beach is a naturally Om-shaped beach, it attracts local tourists on weekends.

It has a few shacks and eateries, and also boat service to other beaches. You can visit it at any time of the year.

Gokarna is fast becoming a preferred destination for travelers who want to escape the crowded Goan beaches. With its sprawling shoreline, Gokarna offers everything from trekking to water sports.

Accommodation is also pocket friendly and easy to reach at this destination. Gokarna is easily accessible by road and rail. The nearest rail head is Gokarna Road which is about 6 km away from the town and taxis, rickshaws and buses are available right outside. You can also reach Gokarna from other railway stations like Ankola, Kumta, Karwar and Madgaon. If you plan to take the road, you have several buses to take you to Gokarna. KSRTC has buses plying from Bangalore, Mangalore, Panjim, Hubli, etc.

3) Manas National Park (Assam)

The Royal Manas National Park is the oldest nature preserve in the Kingdom of Assam . Its incredible biodiversity includes hundreds of rare animal and plant species. The park is the most biologically diverse protected area in the kingdom as well as one of the most outstanding nature preserves worldwide.It is a Natural World Wide Heritage , a Project Tiger reserve, an elephant reserve and a biosphere reserve in Assam, India. Located in the Himalayan foothills, it is contiguous with the Royal Manas National Park in Bhutan. The park is known for its rare and endangered endemic wildlife such as the Assam roofed turtle, hispid hare, golden langur and pygmy hog. Manas is famous for its population of wild water buffalo

The name of the park originated from the Manas River. The Manas river is a major tributary of Brahmaputra River, which passes through the heart of the national park.The park is known for its rare and endangered endemic wildlife such as the Assam roofed turtle, hispid hare, golden langur and pygmy hog. Manas is famous for its **population of wild water buffalo**.

4.Rani ki Vav, Ahmedabad

The Queen's Stepwell, also known as Rani Ki Vav, is located in Patan, Gujarat. It was built between 1022 and 1063 AD and is an amazing example of Royal Steep Well. After spending many years in the wilderness, this magnificent structure was rediscovered in the 1950s. As a result, the extravagant carvings are in excellent condition. This location has a number of distinguishing characteristics that have helped it become one of the most important stepwells in the country.

The nearest railhead is Patan Railway Station. Patan is well-connected with major cities like Ahmedabad, Mahudi, Vadodara, Mehsana, and Unjha. Ahmedabad is the nearest airport from Patan.

October to February might be the best time to visit here. They have facilities like restrooms, wheelchairs, snack stalls, brochures, guide books, etc. the entry fee for Indian citizens is 20/- to 25/- per head. Meanwhile for foreigners it is 250/- to 300/- per head.

There are more places like Hampi, Afghan Church, Chopta in Uttarakhand, Takshashila, Nalanda University places, Udwada, Tibetan monastery coorg, Amer Fort, ST Francis Xavier's tomb in Goa, Lonar lake in Maharashtra, Rakhigarhi in haryana, kashi, Nook, etc. these were the lost places known by the respondents.

OBJECTIVES

1) The principal objective of this research is to examine the socio economic impact of tourism in India.

2) To analyze whether the respondents will be willing to know more about the impact on tourism in India.

3) To know the possible ways to improve tourism within India .

SCOPE OF STUDY

India is a land of diversified culture, finest architectural heritage, remarkable landscapes and spectacular beaches and mesmerizing mountain ranges. And we want people to know more about the lost gems of India. To let people understand that India offers a vast range of tourism choices, with diversified culture, heritage, tribes, cuisine, faiths, art and craft, land and nature, people, adventure, sport, spirituality, history to name a few. And how Economic Development can boost up with the help of Historical Tourism within India.

METHODOLOGY

● The primary data was collected based on a questionnaire created using google forms from different individuals in the Mumbai region.

● The secondary information was collected from books, articles, research papers, websites, and magazines.

● Random Sampling Technique is adopted to collect information from 123 respondents.

PROFILE OF THE RESPONDENTS:

1} Question title: Age.
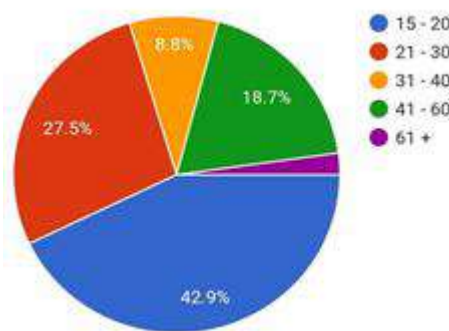
We decided to approach all the groups to observe all kinds of perspectives by leaving the 'generation gap' behind. The above pie chart analyzes that the majority of respondents are from the 15-20 age group, followed by 42.9 from 21-30, 27.5 from 31-40, 8.8 from 41-60 and 18.7 from 60 & above.

2} Question title: Do you believe that tourism can play an important role as a driving force of economic development?
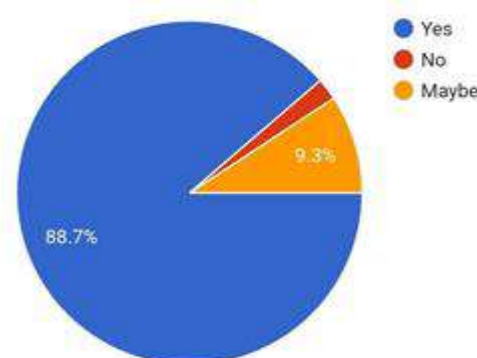
Tourism helps developing countries achieve three high-priority goals: revenue production, employment, and foreign-exchange earnings and considering every response from the above chart, almost everyone agrees to the above statement; only few of them are unsure.

3}Question title: Do you believe that visiting historic places increases self-employment, income opportunities for the local residents?
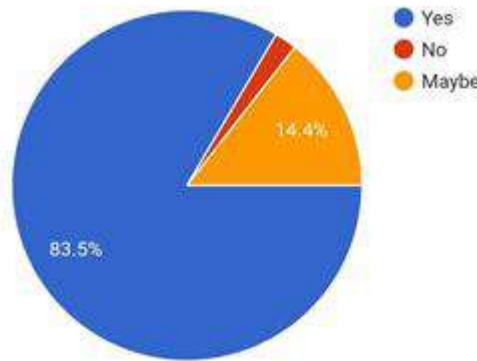
From the above pie chart, it looks like the majority of respondents believe in the opportunities it gives to the local residents. Whereas 14,4% respondents feel unsure about it and 1 respondent seems to disbelieve the above statement.

4}Question title: Have you ever visited any historic place?
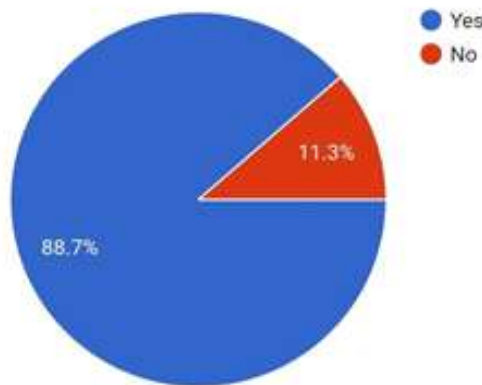
Visiting our historical monuments should be on everyone's to-do list. Analyzing the chart, 88.7% did visit them but the remaining 11.3% respondents are yet to explore.

5}Question title: Do you buy local cultural art from the places you have visited?
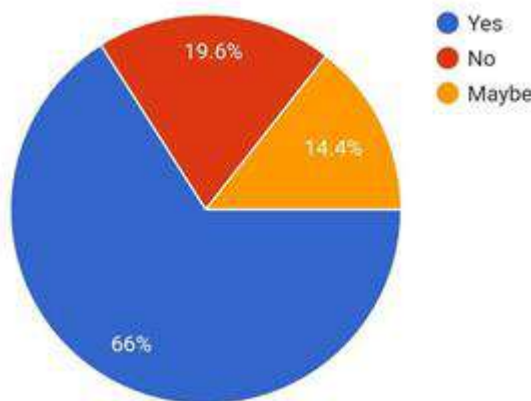
Supporting local artists by buying their art and rewarding their performances can boost their financial conditions. 66% of the respondents do support them. 19.6% do support but only sometimes, whereas 14.4 are yet to contribute.

6}Question title: How can we improve tourism within India?
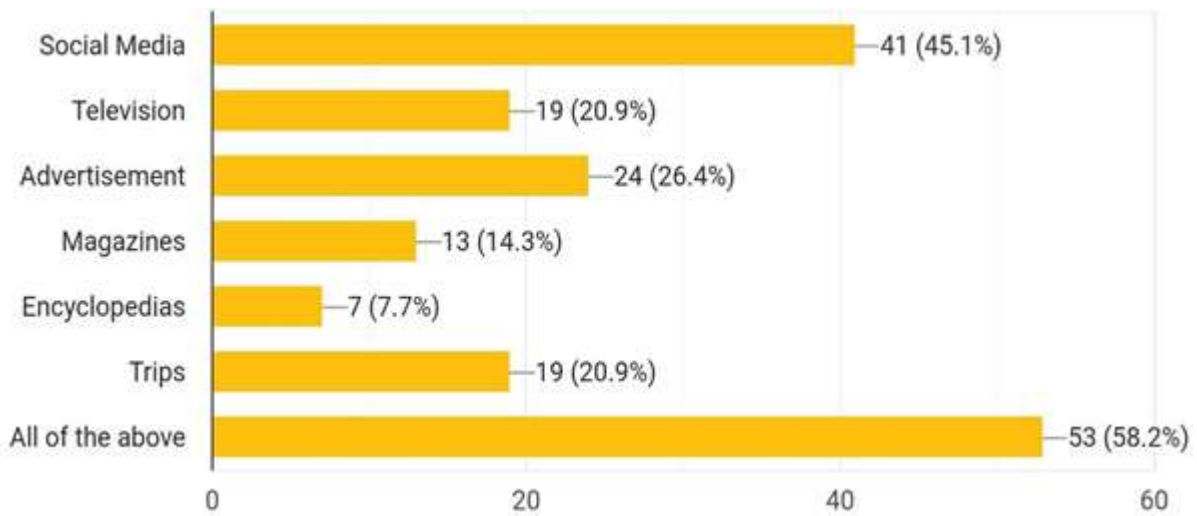
As given information in the above chart, 45.1% respondents have chosen Social Media. Television and Trips have equal consideration by 41.8% each. Advertisement has 26.4% respondents. Magazines and Encyclopedias by 22% each. And 58.2% have chosen all of the above suggestions.

7}Question title: If given a chance would you explore the hidden gems of India?
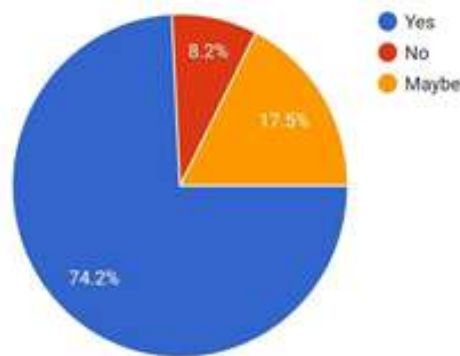
25.7% respondents are unsure about exploring but the rest 74.2% would happily go on an adventure of discovering our amazing monuments.

8}question title: Do you know any Hidden Gems (unknown/lost historical places in India)?

Many have many places in their mind; they suggest many hidden and lost places. We've mentioned some of their suggestions in the { para no.] While some of them are still on the 'Hidden Indian Gem' quest.

9}Question title: Do you think preserving and acknowledging our historic monuments is necessary?
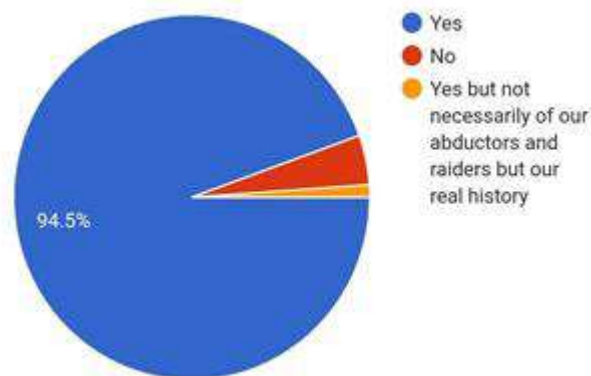
As the information given above, every respondent agrees on the aforesaid statement. One respondent specifically says that they feel unsure about the monuments built by "our abductors and raiders but our real Indian monuments". As we know, every individual has their own perspectives and they all are welcomed.

10}Question title: Would you like to know more about India's Hidden Gems if we provide you a gist of it?
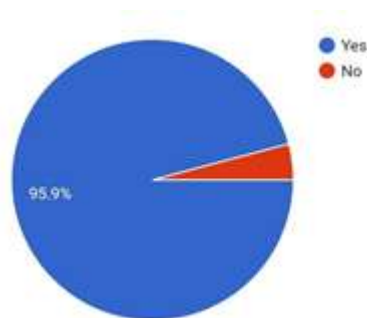
We are very glad that all the respondents showed their enthusiasm by agreeing to read about the lost historic monuments and how it affects Indian Economic Development.

SUGGESTIONS:

1. To Educate people about our Historical places and their people ,crafts etc .

2. To teach them how we can use our money in our country itself and how we can grow our employment by doing such research ,projects ,activity of hidden gems of India and the people who live there.

3. We can do this by survey or by distributing google forms or by taking college Industrial visits.

4. We can also begin by starting to teach young kids about how diverse and amazing our historical monuments are and how they should explore them when they grow up.

CONCLUSION

The study shows that there are innumerous hidden gems of India which are yet to be renowned. By exploring and marketing these places we can improve economic development. Because they help our India- A Developing Country achieve three high-priority goals: revenue production, employment, and foreign-exchange earnings.According to the survey, many people are still unaware about many historical monuments hidden or not. But they are ready to know more about our monuments.

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Liu, W.B, Wongcha A, & Peng, K.C. (2012), "Adopting Super-Efficiency And Tobit Model On Analyzing the Efficiency of Teacher's Colleges In Thailand", International Journal on New Trends In Education and Their Implications, Vol.3.3, 108 – 114.

- **Text Book:**

Simchi-Levi, D., Kaminsky, P., & Simchi-Levi, E. (2007). *Designing and Managing the Supply Chain: Concepts, Strategies and Case Studies* (3rd ed.). New York: McGraw-Hill.

S. Neelamegham," Marketing in India, Cases and Reading, Vikas Publishing House Pvt. Ltd, III Edition, 2000.

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- **Unpublished dissertation/ paper:**

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- **Article in newspaper:**

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- **Article in magazine:**

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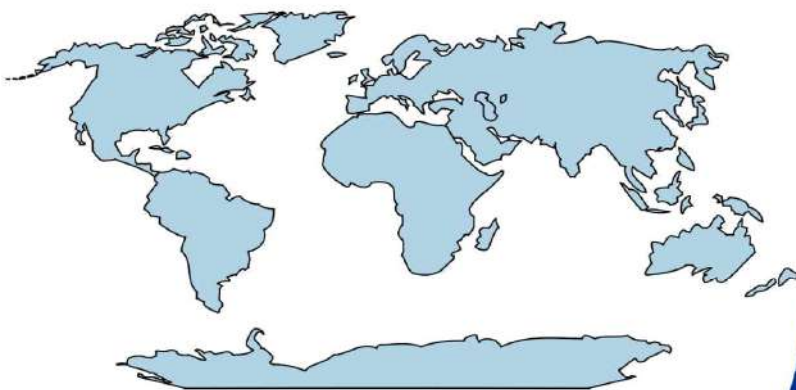
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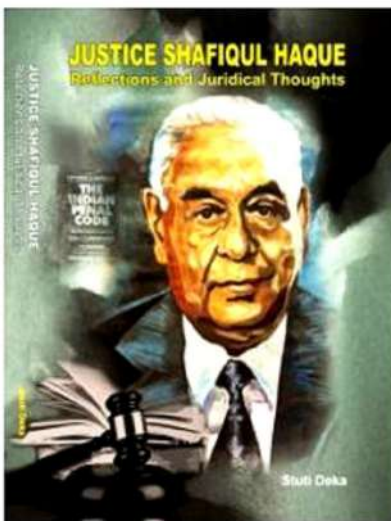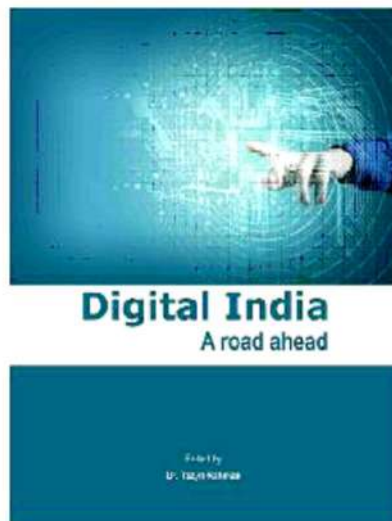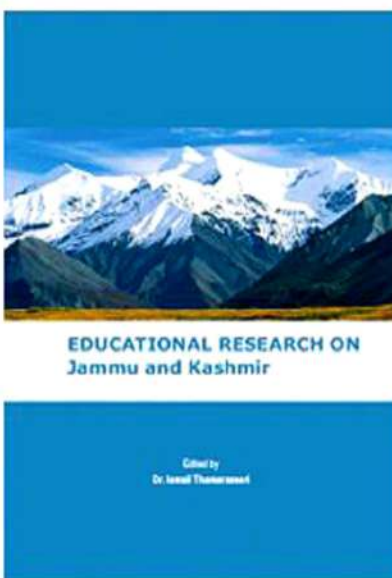
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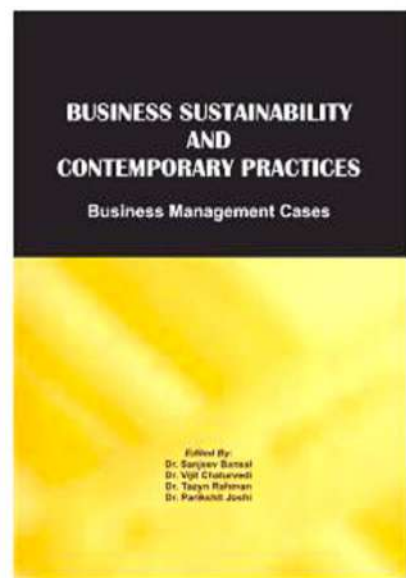
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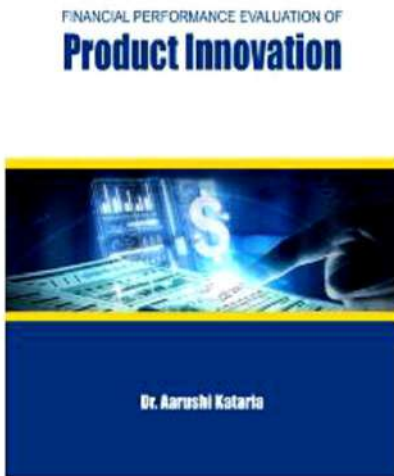
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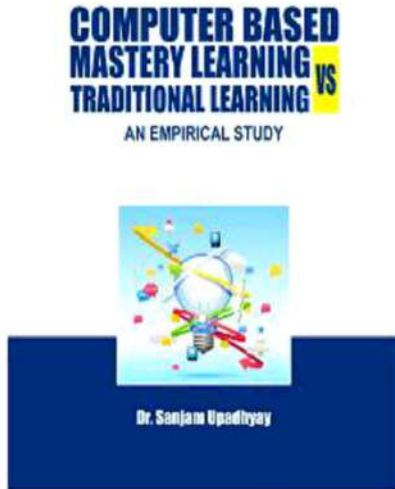
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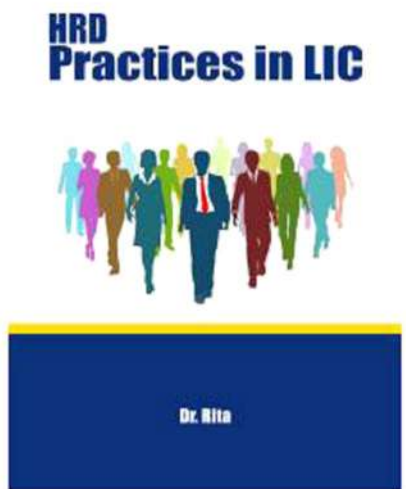
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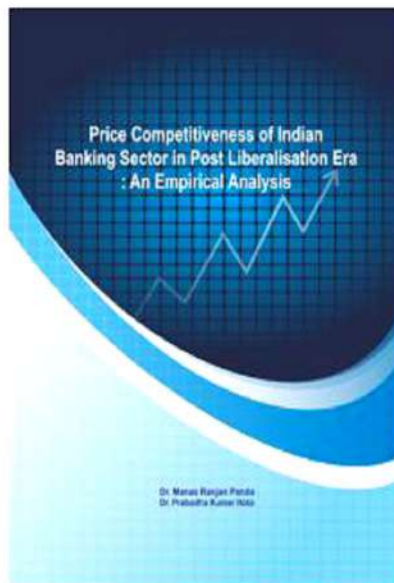
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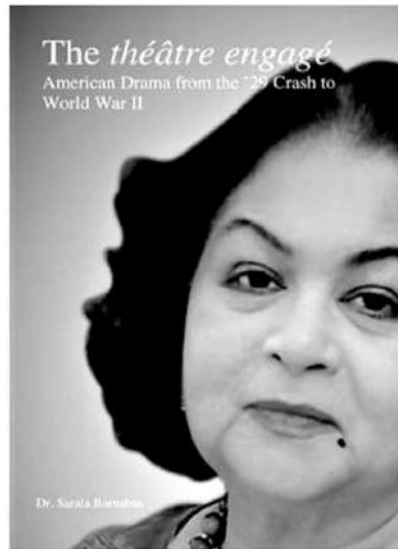
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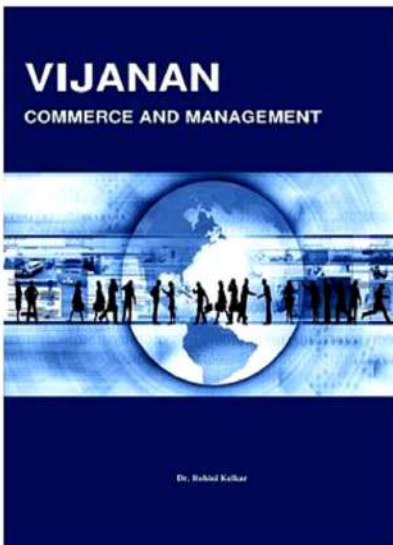
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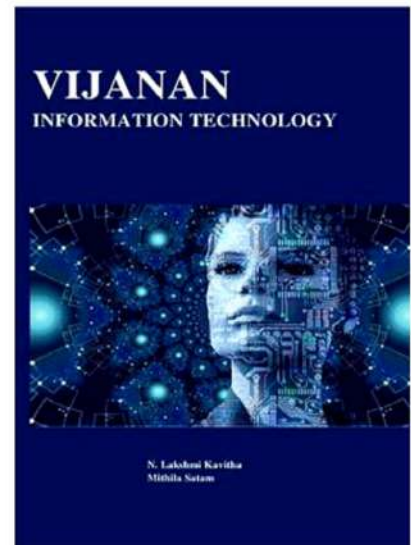
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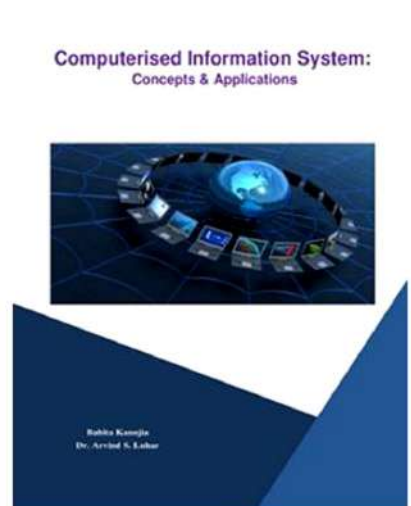
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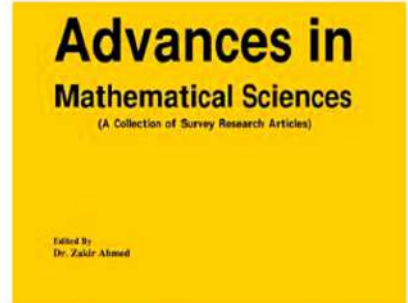
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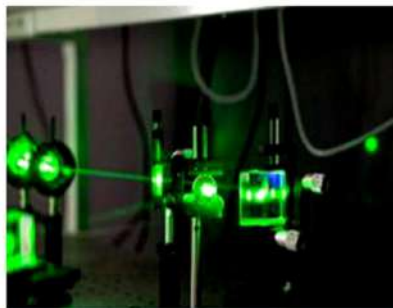
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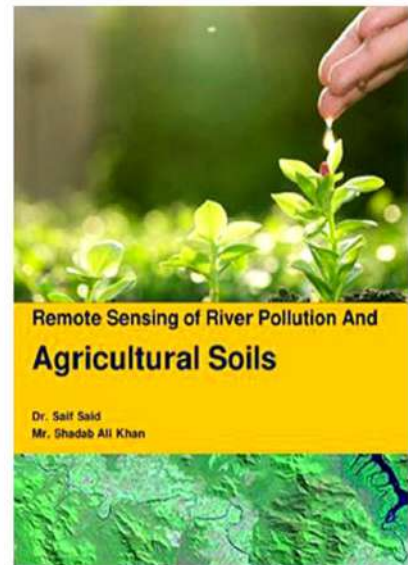
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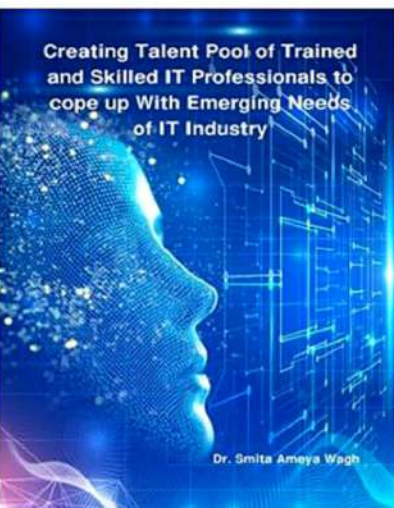
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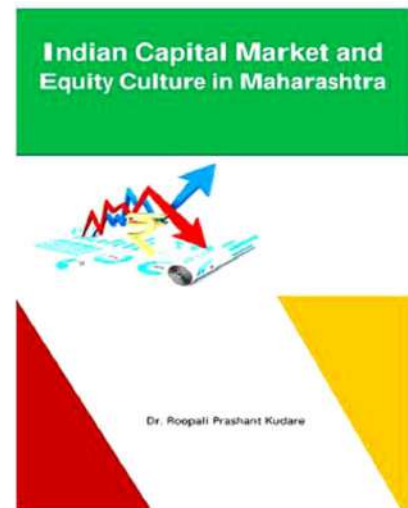
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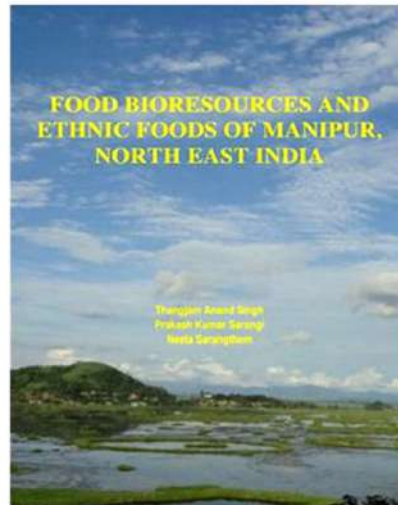
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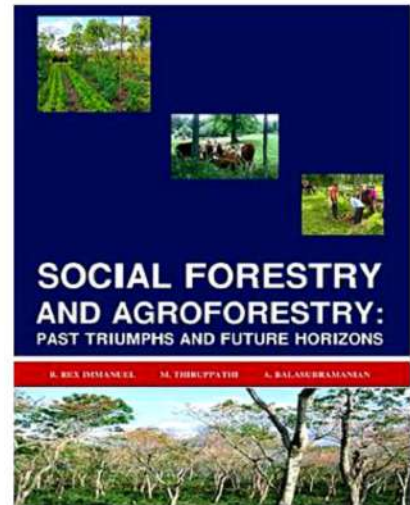
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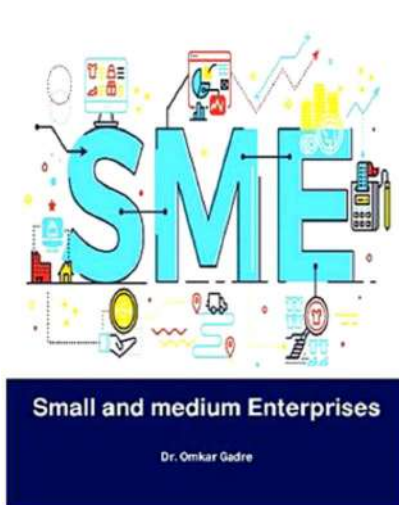
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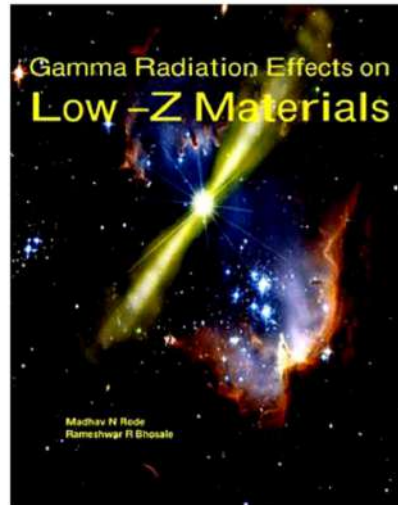
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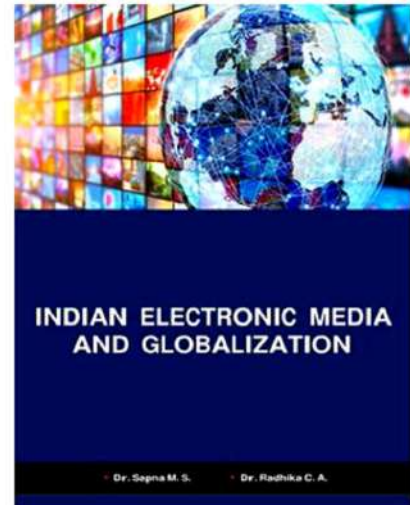
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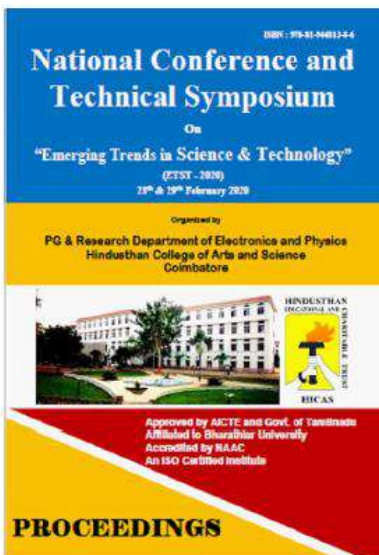
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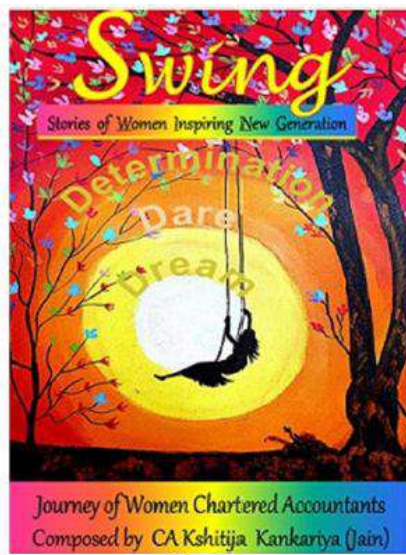
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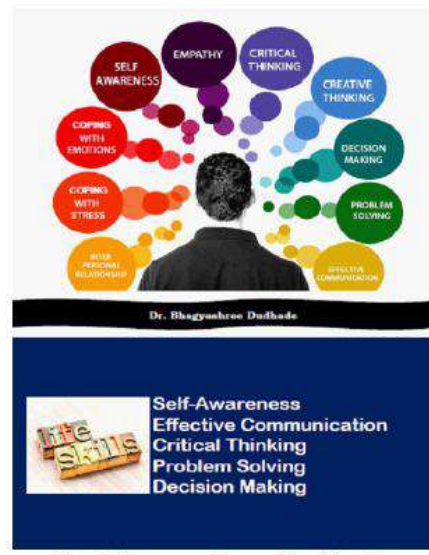
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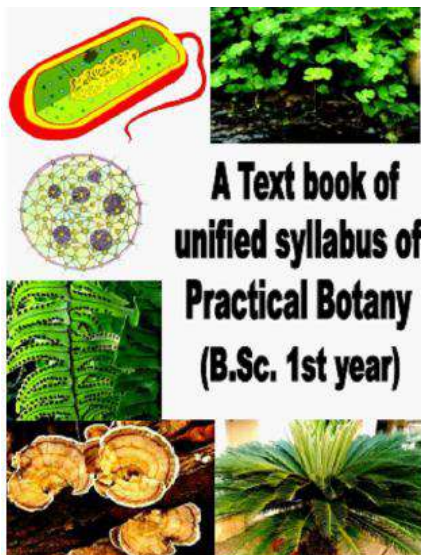
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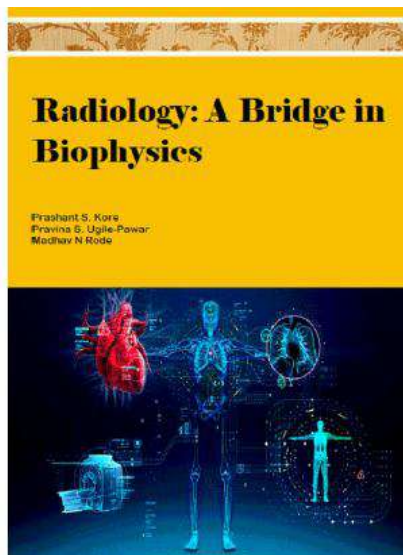
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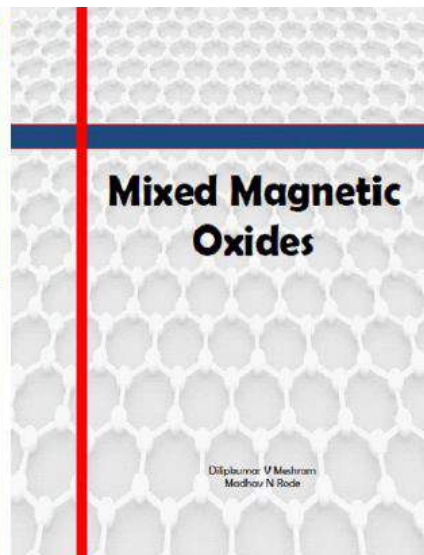
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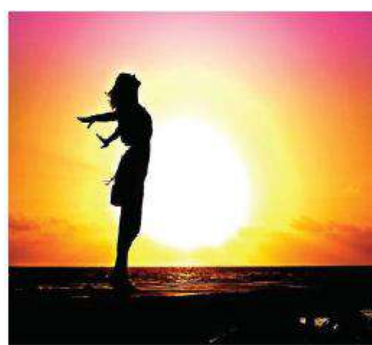
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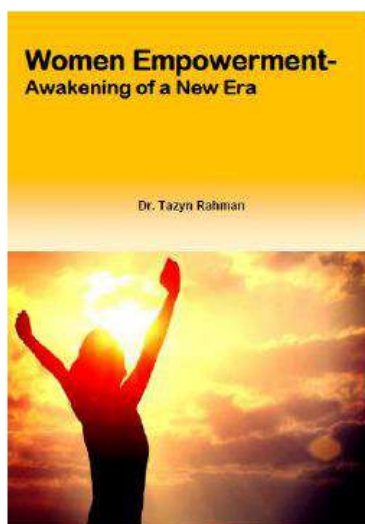
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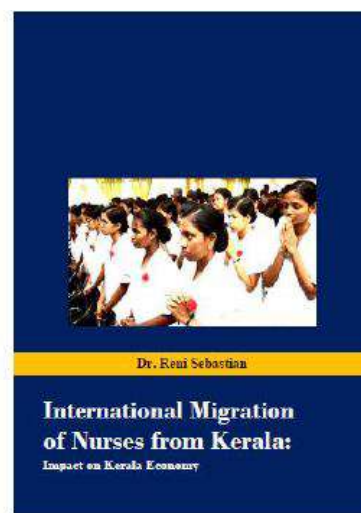
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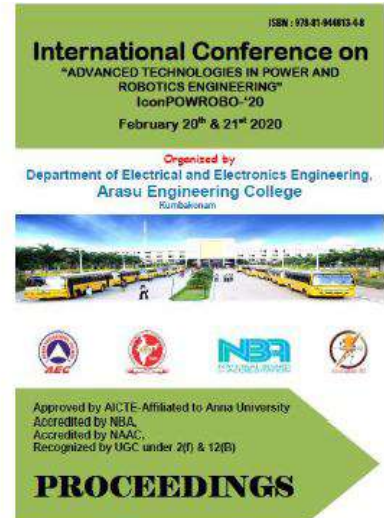Impact on Kerala Economy
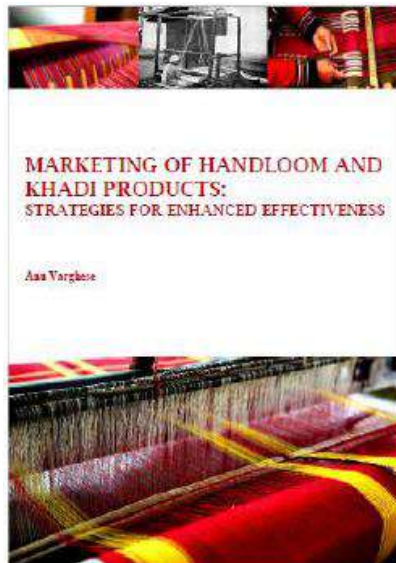
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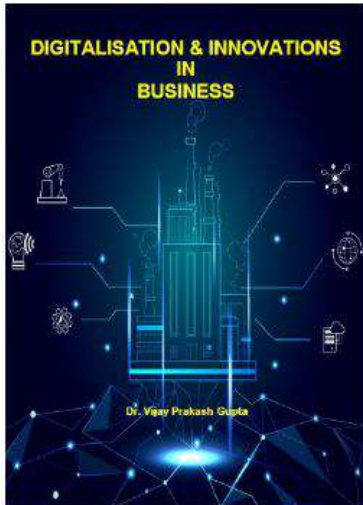
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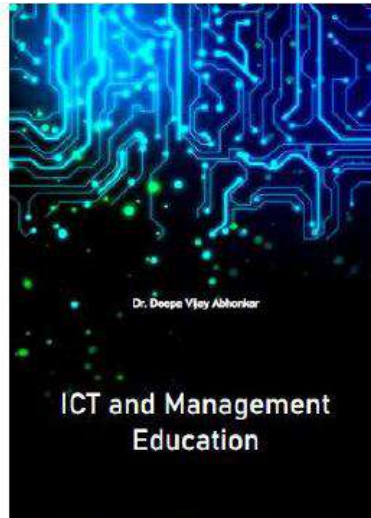
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