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Publishing Co-ordinator

Dr. Ganesh Bhagure
Principal
Satish Pradhan Dnyanasadhana College
Off Eastern Express Highway
Dnyanasadhana Marg
Thane - 400604, Maharashtra, India
Mobile: 84518 45615
Email: principal@dnyanasadhanacollege.org

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Satish Pradhan Dnyanasadhana College, Thane

Email: principal@dnyanasadhanacollege.org Mob.: +91 84518 45615

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- c) The first page should contain title in bold, 14 point size, name/s of author/s in bold, 12 point size, affiliation/s-address, email id and contact number in 11 point size, abstract-up to 200 words in 11 point size, keywords-between 5 to 10 keywords in 11 point size.

- d) Main Text- The paper should be divided into the following sections:

Introduction, Objectives, Hypothesis, Research Methodology, Materials and Methods, Results and Discussion, Conclusions, Acknowledgement and References.

Tables and Figures of good resolution (600 dpi) should be numbered consecutively and given in the order of their appearance in the text and should not be given on separate pages.

- e) References- References should be cited in the text as superscript numbers in order of appearance.

References at the end of the paper should be listed in serial order to match their order of appearance in the text. Names of journals should be in italics and volume number should be in bold.

Reference to papers e.g. Ganesh R.S., Pravin S. and Rao T.P., 2005, *Talanta*, **66**, 513.

Reference to books e.g. Lee J.D., 1984, A New Course in Inorganic Chemistry, 3rd ed., ELBS and Van Nostrand Reinhold (UK) Co. Ltd., p.268-269.

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GEN-Z'S PERCEPTION ON FINANCIAL INFLUENCERS AND HOW IT AFFECTS THEIR FINANCIAL DECISIONS

Ms. Falguni Mathews (Asst. Professor), Akhileshwaran Bharatarajan (Student), Jeetu Kunder (Student), Abhishek Aji (Student), Sahil Chavan (Student)
BFM Department, SIES College of Commerce and Economics, Mumbai - 400022.

Email: falgunimathews1@gmail.com; akhil.bharatarajan@gmail.com; jeetukunder2002@gmail.com; abhishekaji01.sr@gmail.com; sahilchavan110@gmail.com

ABSTRACT

We observe a potential expansion in the newly established sector of financial influencers in the financial world where young people look for other sources for their own financial investments. The emergence of personal finance influencers may be partially linked to the rising use of social media to seek financial advice. The purpose of this study was to determine if those who have the potential to influence financial decisions really do so and to comprehend the warnings that financial influencers gloss over when describing various financial topics. Secondary and primary sources were used to gather the data for this study. A tailored questionnaire that was distributed to the respondents was used to gather primary data. Reviews from numerous study papers, publications, and newspapers make up secondary data. Some of the findings of this research paper conclude that financial influencers should deliver material that meets investor expectations and the researcher's opinion is that novice investors should be well-informed when observing or following various financial influencers while making financial judgements.

Keywords: Gen Z, Financial influencers, Financial decisions. Social media

INTRODUCTION

In the world of finance where youngsters chase for various sources for their personal financial investments, we see a potential growth in the newly formed industry of financial influencers. A social media influencer is a person who uses social media to promote themselves and has gained trust in a particular industry or niche. Through the distribution of their content on social media platforms like Facebook, YouTube, Instagram, and TikTok, they develop a loyal following and audience. Moreover, they might have a podcast or blog. A social media influencer who focuses on providing advice on finances and money is known as a personal finance influencer. The increasing usage of social media to seek financial advice might be partly attributed for the rise of personal finance influencers. Personal finance influencers can monetize a YouTube channel, provide sponsored

articles, offer digital goods or courses, or engage in affiliate marketing by disseminating their financial expertise. By the end of this year, India is expected to have a market of Rs 900 crore for influencer marketing. Additionally, about two-thirds of Indians follow influencers. Celebrities receive only 27% of the marketing dollars spent on well-known figures. The bulk of 73%, however, goes to influencer marketing! Whether you like it or not, influencers and influencer marketing are a reality.

Since age is not a factor in defining generational cohorts, the age range of Gen Z will change throughout time. According to the majority of sources, Generation Z was born between 1997 and 2010, hence as of 2020, its age range was generally between 10 and 23. A sizeable fraction of Gen Z's oldest workers currently make up the workforce. The need for personal financial security and education is another tendency that academics have noticed among Generation Z. Many people witnessed their parents' struggles during the Great Recession as children. Because of this, people are worried about their financial future and are getting ready by starting savings accounts and paying off debt.

Prior to a more exact definition of Generation Z, they were sometimes included alongside millennials. It's true that there are certain parallels between the two generations. Some of these similar traits include:

- progressive stances on issues
- acclimating to technology
- Social media presence
- Putting personal finance first

OBJECTIVES

1. To study financial influencers power to alter financial decisions of Gen Z.
2. To analyze the understanding of Gen-Zs financial decisions with the help of financial influencers.
3. To understand the caveats ignored by financial influencers when explaining various financial concepts.
4. To validate GEN-Zs dependence on new age financial influencers as compared to esteemed investment houses.

REVIEW OF LITERATURE

According to Imène Chikhi (2021), Instead of focusing on the skills that their audience has learned, personal finance influencers use social media as a tool to improve the financial literacy of their audience. They think that financial influencers will be keen to share information on financial education with their audiences in order to raise the level of financial literacy.

Pham, Minh; Dang, Thao Yen; Hoang, Thi Hong Yen; Tran, Thi Thanh Nga; Ngo, Thi Huong Quynh (2021) are of the opinion that as traditional marketing strategies lose their efficacy, social media and online influencers have emerged as valuable marketing tools (Schivinski & Dabrowski, 2016). Influencers are regarded as a unique element of the online community. Through different social media platforms, they spread the word by sharing their experiences, thoughts, and views about a range of topics, services, and goods (Harrigan et al., 2021). The community will next determine whether or not to use or trust this information. The choice of the goods or services that the influencer has recommended is impacted by this.

GEN-Z'S PERCEPTION ON FINANCIAL INFLUENCERS AND HOW IT AFFECTS THEIR FINANCIAL DECISIONS

Wan Suryani, Fitriani Tobing, Yesika Emelia Girsang (2022) in their study state that Influencers are extremely likely to have an impact on Gen Z's investment behaviour because they are a digital generation (Safitri, 2021; Wibisono 2019). They must exercise caution since not all of these influencers have the necessary training or expertise.

Tristan Hunter Pike (2020) gives insight into the personal finance education that college students are now receiving as well as chances in the current general education system to address finance education and university students' personal financial management practices.

Kavya Clanganthuruthil Sajeev, Mohd Afjal, Cristi Spulbar, Ramona Birau, Ion Florescu (2021) try to figure out how behavioural finance affects the intentions and investing choices of Gen Z investors.

STATEMENT OF THE PROBLEM

During the pandemic many youngsters realized the importance of handling your finances and accumulating money for the future. In order to achieve that it was necessary to have the required financial knowledge and time. This is where financial influencers started to play an important role in terms of educating the young minds and helping them become financially independent. Like all things nothing in this world is free and we wanted to find out how financial influencers profited from this pro bono business. This industry is a relatively new industry and we wanted to explore the benefits and drawbacks of following such financial influencers.

SCOPE OF STUDY

The purpose of this research was to determine the impact that financial influencers have on the financial decisions of Gen Z. The researcher chose the age range of 18-25 for this particular research. This is because the age range of Gen Z's start from 10 all the way to 25. The questionnaire sent out were focused more on college students as they fall into the category of Gen Z. Researcher made sure that the questionnaire was focused more on finance aspect but was easy to understand for people from different fields.

LIMITATIONS OF THE STUDY

1. The target audience was a major limitation since finding people who are into finance and are a part of the Gen Z culture were limited.
2. The data collected was only through google forms. Hence there was no one on one interview.
3. Mumbai is a large and highly populated city the research was limited to the college going students there by ignoring people with a well experienced finance profile.
4. Chances of error in information collected could be high since many wouldn't have disclosed the actual information.

RESEARCH METHODOLOGY

The data for this research was collected through primary and secondary sources. Primary data was collected through a customized questionnaire sent out to the respondents. Secondary data comprised of reviews from

different research papers, articles and various newspapers.

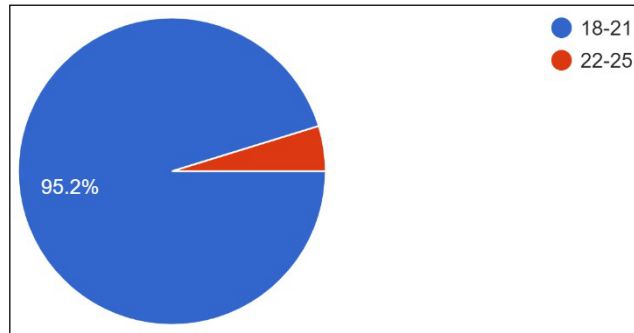


Figure 1

Since our target audience were Gen-Z's, respondents were mainly between the age group of 18 to 25. Out of which 95.2% were between the ages of 18 to 21, and 4.8% were aged between 22 to 25.

Q) Profession

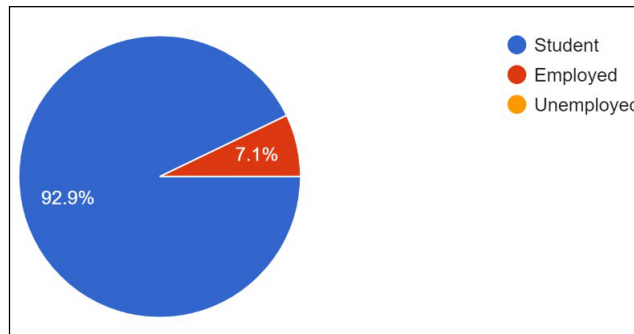


Figure 2

Out of the total respondents, 92.9% were still college goers and the rest had recently got jobs in different companies.

Q) How often do you invest?

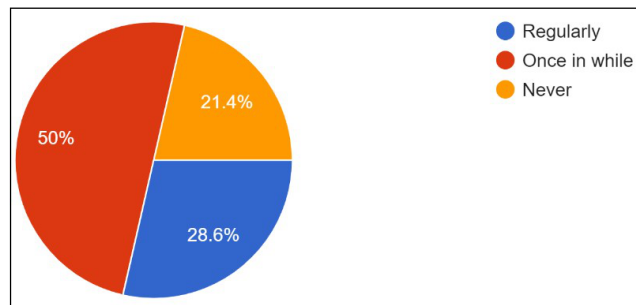


Figure 3

GEN-Z'S PERCEPTION ON FINANCIAL INFLUENCERS AND HOW IT AFFECTS THEIR FINANCIAL DECISIONS

When asked about the frequency of investing in different financial instruments, 50% responded that they used to invest once a while. 28.6% answered that they were regularly investing in different asset classes. 21.4% of people hadn't entered the financial market yet.

Q) Do you follow financial influencers on social media?

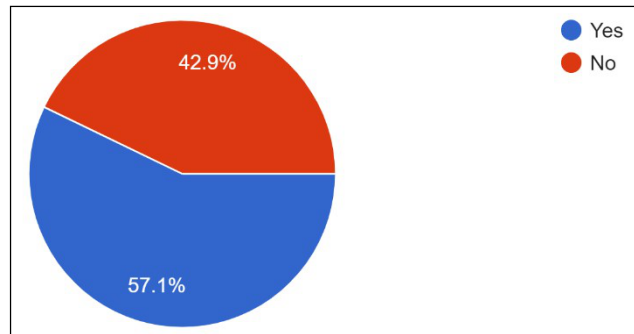


Figure 4

57.1% of the respondents were familiar with different financial influencers and were following them on various social media sites. The rest were not so keen on following the influencers, even though they had heard of them.

Q) Which among the given social media platforms do you prefer the most for financial advice/knowledge?

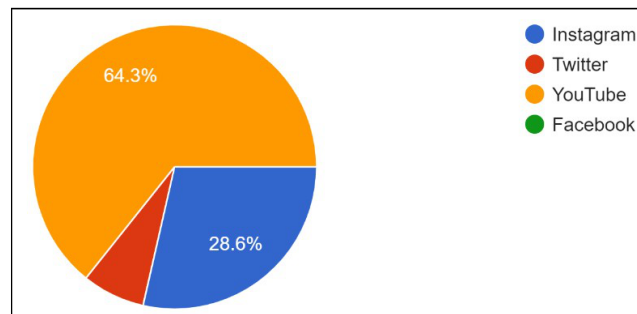


Figure 5

64.3% of people feel that financial influencers should post their content on YouTube. 28.6% are okay with them posting videos on Instagram. Nobody wants influencers to post informational videos on Facebook.

Q) How did you get to know about financial influencers making financial literacy videos?

More than half of the respondents got to know about financial influencers through recommendations on social media apps. This shows that influencers leveraged social media to help grow their numbers.

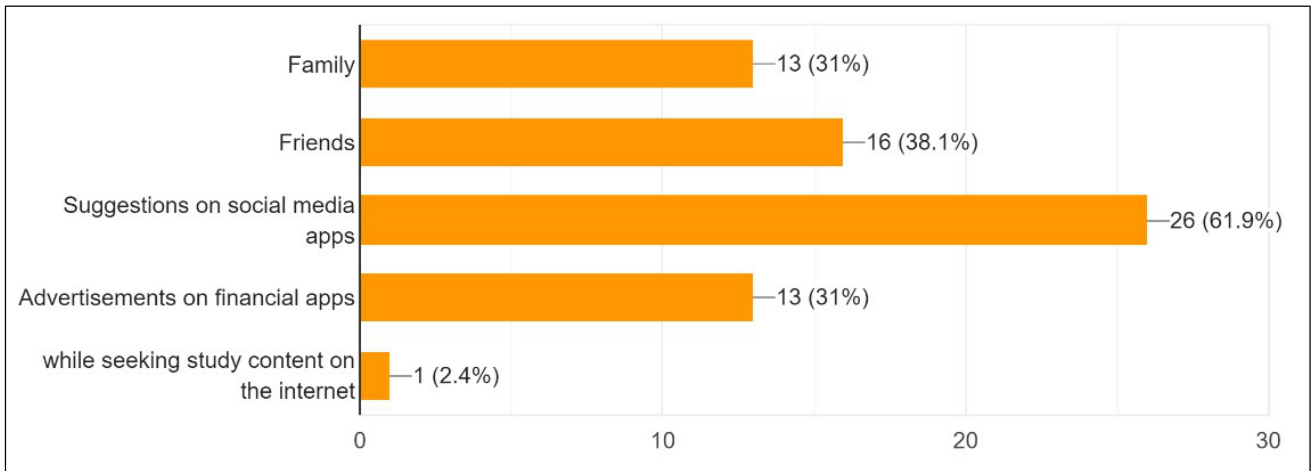


Figure 6

Q) Would you agree that Financial Influencers do a good job of simplifying complex financial concepts?

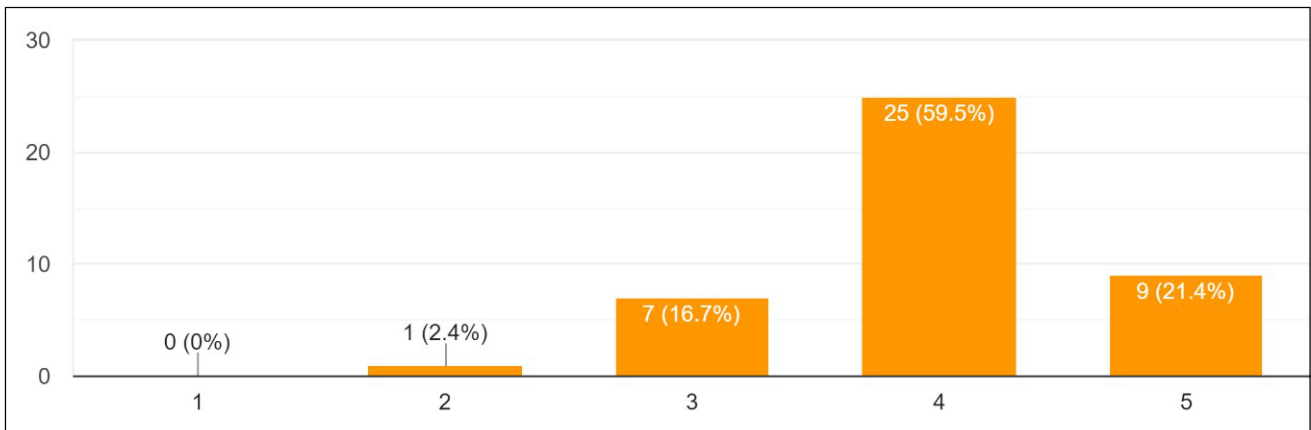


Figure 7

Almost 60% of the respondents feel that the content provided by financial influencers are somewhat to the point and easy to understand. Financial Influencers' main purpose is to simplify different concepts and provide to the masses. And this particular survey shows that they are close to achieving that status.

Q) Would you agree that financial influencers can fraud gullible investors by not mentioning the risk associated?

40.5% of the respondents are in two minds about the content put out by the influencers. Surprisingly, 26.2% are fully convinced that financial influencers can easily fraud not-so-smart investors by providing incomplete information about the risk involved in investing.

GEN-Z'S PERCEPTION ON FINANCIAL INFLUENCERS AND HOW IT AFFECTS THEIR FINANCIAL DECISIONS

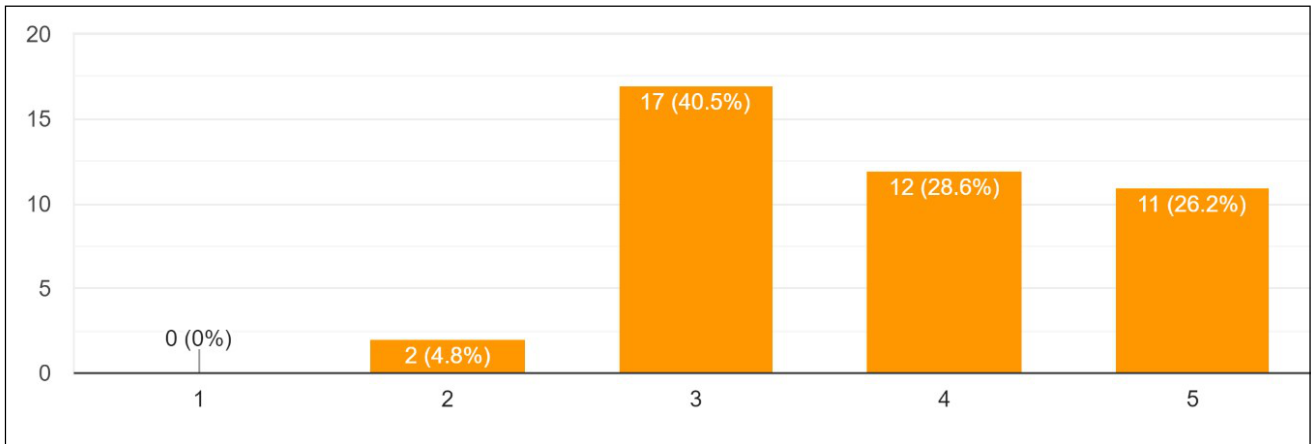


Figure 8

Q) Would you agree that Gen-Z's hunger to invest has boomed the financial influencers' industry?

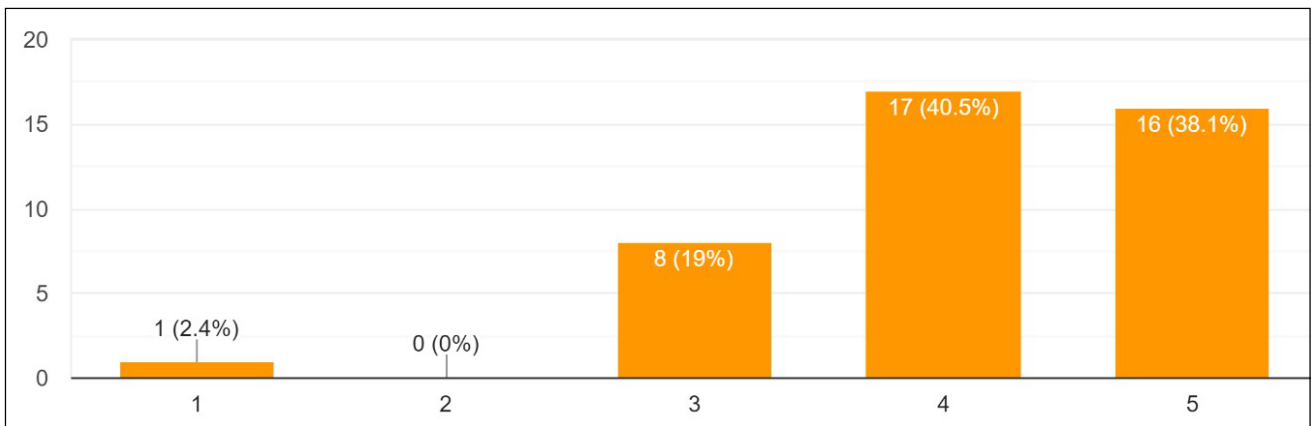


Figure 9

Around 78.6% of the total respondents strongly believe that the industry of financial influencers has seen a meteoric rise due to the demand created by the Gen-Z's. There is also a scope for the industry to rise even further as more and more people are going to start investing and taking help from content put out by the influencers.

Q) Have you made money by listening to these financial influencers?

Around 69% of people have made money on some occasions after listening to these financial influencers. This shows that the content put out is accurate most of the times, and can help in financial decisions.

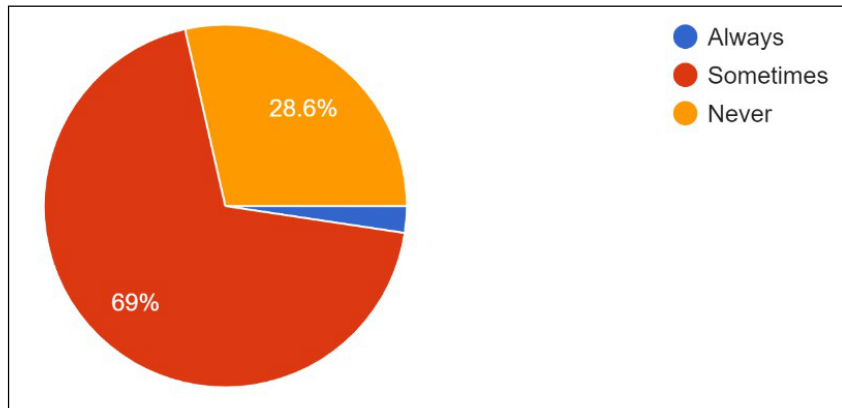


Figure 10

Q) Would you recommend others to follow these financial influencers?

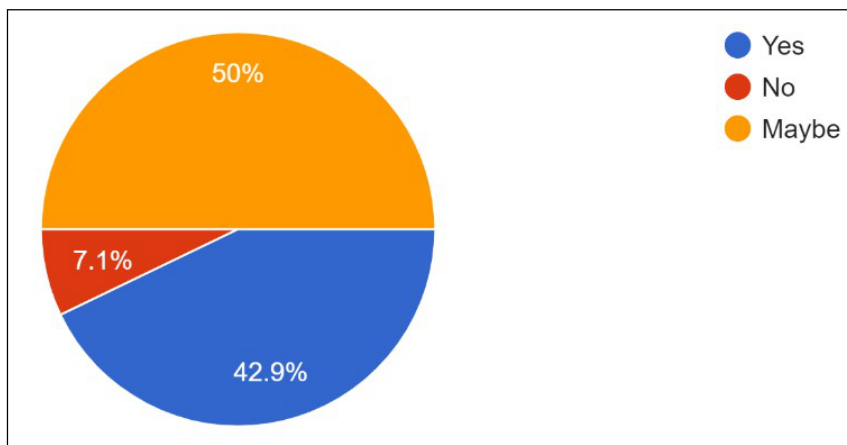


Figure 11

Half of the total respondents are a little bit dicey about suggesting financial influencers to people they know. Close to 43% are fine with recommending influencers for various financial advice. The rest are not so keen on suggesting such influencers to the general public.

RECOMMENDATION

- We recommend Gen Z investors to do their own research, without blindly trusting financial influencers.
- Financial influencers should avoid overhyping trending financial assets to gain reach.
- The content provided by financial influencers should be in line with investor expectations.
- We feel new investors should be well aware while watching or following different financial influencers for their financial decisions.
- Gen Z should take trades on different financial assets only after considering their risk profiles and capital allocation.

GEN-Z'S PERCEPTION ON FINANCIAL INFLUENCERS AND HOW IT AFFECTS THEIR FINANCIAL DECISIONS

CONCLUSION

We can conclude that social media is a very effective platform for financial influencers to put out their content and for new age investors, a better source for gaining financial knowledge. In the rising industry of financial influencers, the number of creators is just going to increase with a view of making it easier and simpler to understand for their viewers and help them gain appropriate financial knowledge. The main aim of investors should be protecting their capital and not expecting super high returns just because influencers were talking about it in their videos.

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A STUDY ON USE OF VOICE CONTROL IN DAY TO DAY LIFE

Rachi Anant Dhukate, Riya Vijay Dheb and Mrunali Pandurang Patil

Students, SYBAF

Satish Pradhan Dnyansadhna College, Thane City, 400606

Email: rachidhukate@gmail.com; riyadheb02@gmail.com;

mrunalip323@gmail.com

ABSTRACT

This research paper includes a detailed study on use of voice control in day to day life. we are going to search on how other people uses the voice control in their daily lifestyle. It also include People with intellectual disability are keen users of information technology, but the need for spelling and typing skills often presents a barrier to information and media search and access. How people with intellectual disabilities can use Voice Control in daily activities. The main aim of our research is to create awareness of the benefits that we can get.

INTRODUCTION

Imagination is the greatest gift man is blessed with .We imagined long to implement a system that will receive voice command and then behave accordingly. As we always want to get comfort in our day to day life, we wish that it will be a great achievement if we can control the daily used electronic devices just by giving voice commands sitting in an easy chair or lying in the bed. As this is the age of Computer Science, this gives us a boost to think a lot if we really can implement this. Since we have to control home appliances from computer using voice command, we implement software to recognize every voice command of every person. The voice command is taken into the computer using microphone which can be wired or wireless. From the voice command we generate some control signals to be passed through the parallel port to a control circuit and control the electronic devices according to the received signals. Digital assistants like Alexa or Siri are software programmes that help users to navigate their iPhone, smart speaker or car via a hands-free way using voice commands. The entire ecosystem of automotive manufacturers, app developers, wearable devices and smart speaker manufacturers are banking on digital assistants playing a key role for customers in the coming years.

A STUDY ON USE OF VOICE CONTROL IN DAY TO DAY LIFE

Voice control is also used in helping people with disabilities use computers without the need to use a mouse or keyboard. Using a microphone or headset and the right speech recognition software, individuals with disabilities are able to surf the internet or dictate notes on computers and laptops.

Voice control technology has made it possible for people with disabilities to use a variety of devices and even appliances; and with it, make their lives easier. And, while the current capabilities of this advanced technology are limited by the available solutions and applications, the future looks to be quite promising, as improvements continue to be made as time moves.

ADVANTAGES AND DISADVANTAGES OF VOICE CONTROL

Although many people see voice control as part of our future, there are some drawbacks to consider. Here are the advantages and disadvantages of voice recognition:

Advantages:

- It can help to increase productivity in many businesses, such as in healthcare industries.
- It can capture speech much faster than you can type
- You can use text-to-speech in real-time.
- The software can spell the same ability as any other writing tool.
- Helps those who have problems with speech or sight.

Disadvantages:

- Voice data can be recorded, which some fear could impact privacy.
- The software can struggle with vocabulary, particularly if there are specialist terms.
- It can misinterpret words if you don't speak clearly – take a look at Youtube's auto-captions!

REVIEW OF LITERATURE

[1] Kaladharan N “A Study of Speech Recognition” emphasized types of speech recognition technology developed in recent years and working for the same. The researcher has described types of words, types of speaker models and other approaches for the voice recognition system which provides basic knowledge about speech recognition systems.

[2] Reddy, D.R. & Ermann, “Tutorial on System Organisation for Speech Understanding” described a large variety in the speech recognition concept and it is important to understand the differences between the systems. According to the researcher, the classification of the voice recognition system can be done according to the size of the vocabulary, type of speech, and speaker dependence.

[3] Huggins-Daines explained the accessibility of real-time continual speech recognition on cell phones and embedded gadgets and the technical challenges of computational requirements of continuous speech recognition. In this paper, they have presented work on porting and development of CMU SPHINX-II, a largely used non-proprietary large vocabulary continuous speech recognition (LVCSR) system, for portable devices.

[4]P. Cerny's, V. Kubilius reports the study of the voice and sensor-controlled lift model in this paper. The structure is built with the help of a standard powered controller; it includes a speech recognition system, configurable ports

OBJECTIVES

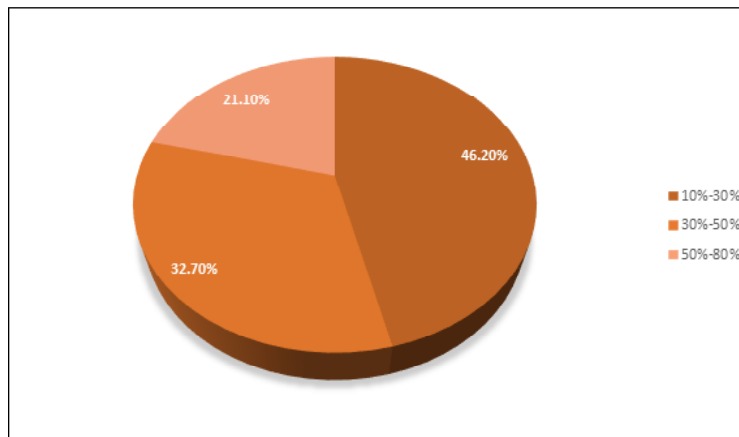
1. The objective of voice recognition is to recognize WHO is speaking.
2. The speech recognition aims at understanding and comprehending WHAT was spoken.
3. It is used to identify a person by analyzing its tone, voice pitch, and accent.
4. It is used in hand-free computing, map, or menu navigation.

RESEARCH METHODOLOGY

Research Universe	Thane
Sampling Method	Simple random sampling
Sample Size	100 Responses
Method of Data Collection	Primary & Secondary Data
Method of Primary Data Collection	Pre-structured Questionnaire
Method of Secondary Data Collection	Research Papers, Articles, Projects
Data Analysis Techniques	Pie Diagram, Clustered Column

DATA ANALYSIS AND INTERPRETATION

1. How much often you use voice control?

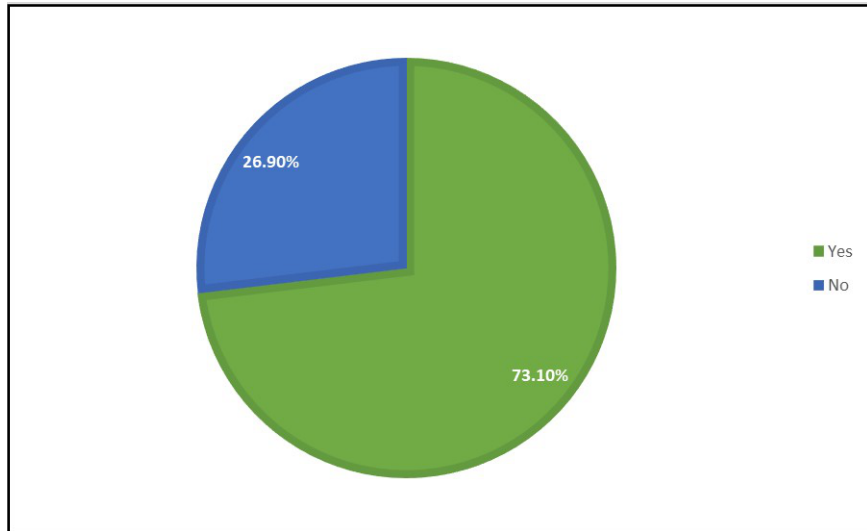


Source: Primary Data

Data Analysis: Most response shows that 46.2% people says that voice control is easy to use which is highest among the remaining other options.

Data Interpretation: Most users say that it's easy to use voice control.

2. Did you face technical and internet issues during the voice control search?

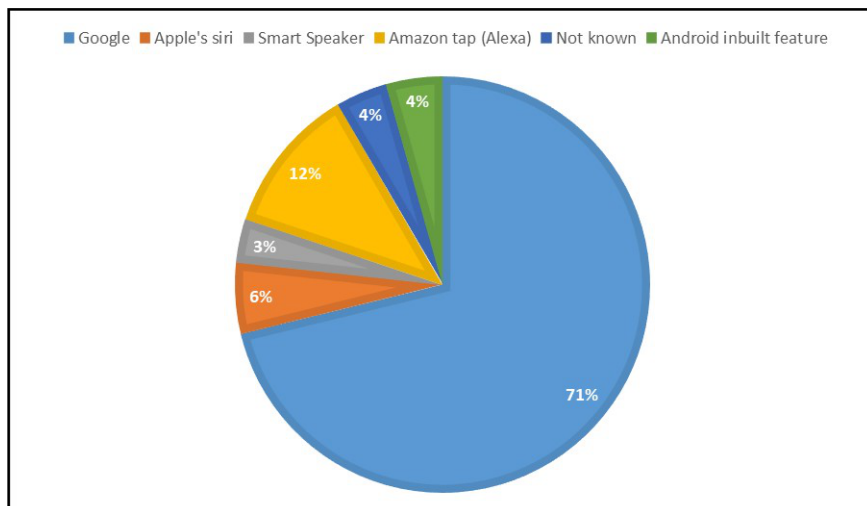


Source: Primary Data

Data Analysis: Most response were concentrated in the favor of facing the issue during the voice control search whereas 26.9% people does not face any issue.

Data Interpretation: We interpreted that most of the people face technical and internet issues during the voice control search.

3. Which voice control device or app you use to prefer?

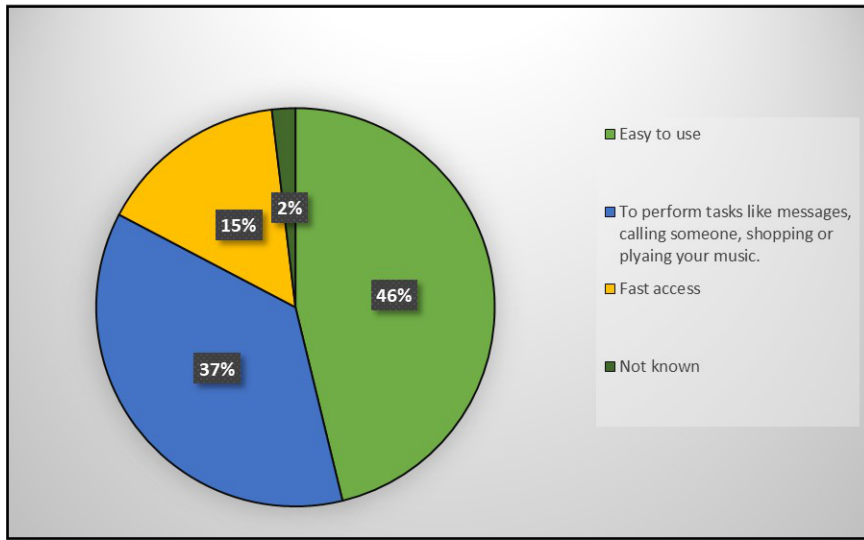


Source: Primary Data

Data Analysis: Most response shows that the preference of voice control device is Google.

Data Interpretation: We interpreted that most of the users use Google app to do voice control

4. What is the main reason that makes you use the voice control?



Source: Primary Data

Data Analysis:- Most response shows that 46.2% people says that voice control is easy to use which is highest among the remaining other options.

Data Interpretation:- Most users say that it's easy to use voice control.

CONCLUSION

Voice Controlled Personal Assistant System will use the Natural language processing and can be integrated with artificial intelligence techniques to achieve a smart assistant that can control applications and even solve user queries using web searches.

It can be designed to minimize the human efforts to interact with many other subsystems, which would otherwise have to be performed manually.

More specifically, this system is designed to interact with other subsystems intelligently and control these devices, this includes alot devices or getting news from Internet, providing other information, getting personalized data saved previously on the system, etc.

A STUDY ON USE OF VOICE CONTROL IN DAY TO DAY LIFE

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ACKNOWLEDGEMENT

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THE EFFECTS OF ONLINE REVIEWS ON CONSUMER TRUST AND PURCHASING DECISION

Mahek Tanzeem Pathan and Jyoti A.Chougule

Students, T.Y. B.Com (Commerce Department)
Dapoli Urban Bank Senior Science College, City - Dapoli
Email: pmahek89@gmail.com

ABSTRACT

Our existence has been entirely upended by the internet. Every element of our daily lives now includes the internet. The invention has caused a significant shift in how people currently shopping. Even while some consumers still prefer to purchase in traditional shopping, online shopping is currently expanding quickly and there are more people using the internet than ever before. This study looked into how online reviews affect consumers' trust and purchase decisions. It looked at whether or not customers profited from the reviews. since India's use of online purchasing has greatly increased. It will assist in identifying the aspects taken into account when shopping online. For this investigation, researchers gather both primary as well as the secondary data. Previous studies have demonstrated that online reviews play an important role in the purchase decision process. Though the effects of positive and negative reviews to consumers' purchase decisions have been analyzed. In reality, online review community allows everyone to express and receive opinions and individuals can reexamine their opinions after receiving messages from others. The goal of this paper is to study how potential customers form their opinions dynamically under the effects of both positive and negative reviews.

The study's findings revealed that consumers, particularly female consumers, pay significantly more attention to negative comments than positive ones. They also revealed that consumers are unable to recognise fraudulent comments. The current study clarifies how consumer purchase behaviour is influenced by online reviews. The study's conclusions make some recommendations for action for online shoppers advising them to pay attention to complaints and address them by customising goods and services and information to address customers' issues.

Keywords: *Online shopping, Consumers trust, Consumers purchasing decision, Online reviews.*

INTRODUCTION

The internet has significantly altered consumer behaviour, making it one of their main sources of information. Through the use of an internet/Web browser or even a mobile app, consumers can directly purchase products or services from sellers via the Internet through online shopping. Customers can search for desired products by going to the retailer's website directly or by utilising an online search engine to look up alternative vendors.

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Shopping search engines show the availability and price of the same goods at several e-retailers. In 2022, consumers now have access to a variety of products for online shopping. Consumers nowadays are knowledgeable and engaged. Through the use of customer reviews, the internet has made it possible for consumers to express their opinions and share their experiences about the products and services with people across the world.

Online customer reviews are one form of electronic word-of-mouth that offer information about products and services and recommendations from the customer's point of view. As shoppers continue to make purchases online, they become more crucial. Customers frequently rely on e-WoM when they can't evaluate a product in-person, reducing the perceived risk of the purchase. When choosing which goods or services to buy, online customer reviews becomes very important that time.

Why Online Reviews Have Such Influence.

It seems that no matter how hard the businesses work, if they receive just one negative review, it might potentially overwhelm all the positive ones. Reviews inspire youngsters and assist them in making well-informed decisions about purchases.

Over 99.9% of buyers read customer reviews before making an online purchase, according to a PowerReviews analysis published 2021.

Additionally, 96% of consumers specifically search for negative reviews. 85% of this number filed in 2018. According to a local consumer survey by BrightLocal, 49% of customers place more trust in online reviews than they do in personal advice from friends and family. The idea that every second person places a high degree of trust in online reviews is appealing. Consumer trust in internet reviews is increasing, but conventional advertising isn't experiencing the same rise. Performance Marketing World reports that 84% of millennials don't believe traditional advertising. People are sick of having advertisements shoved in their faces, especially those that claim that the goods and services consumers receive from brands are of a top notch quality. According to a recent OuterBox study, 8 out of 10 customers search for product reviews on their smartphones while they are in a store.

Shoppers will immediately perform a search to check what other consumers have said about the product being purchased before making a purchase.

In today's environment, reading reviews of products or services has become commonplace.

43% of shoppers have stated on idealistic world that they wish to read over than 100 comments/reviews for a product. Customers claim that a relatively large number of reviews can significantly increase their chance to make a purchase.

Customers expect a response when they make negative feedbacks about a brand. They don't wish to wait more about solution of their negative remarks. According to Review Trackers, 53% of customers want businesses to answer complaints within a week.

According to 2021 Podium's State of Reviews report, 56% of customers have altered their impressions about a company as the result of a review.

when a customer leaves a negative review on a shopping website. Customers will believe that shopping websites actually do care about them and the services they receive if they receive empathic responses and if the shopping sites take an attempt to understand the consumer. Online shopping can convert a dissatisfied customer into a satisfied one.

Even if the complainant doesn't respond, the fact that you made an effort to address their issue will reflect favourably on the company to others who read the review.

OBJECTIVES OF THE STUDY

- 1) To Study Review Of Online Shopping And Its Effects On Customer.
- 2) To Study Consumer Perception About Online Shopping.
- 3) To Study The Awareness On Online Consumer Review And Analyze The Opinion Of Consumer About Consumer Review
- 4) To Study The Impact Of Online Consumer Review Available On Online Shopping Websites and How It Will Effect Consumers Purchase Decision About The Product.

METHODOLOGY OF THE STUDY

Primary data

The primary data was collected with the help of self developed questionnaire. Respondents were asked to denote their perceptions and experience about online shopping on different parameter on a five-point Likert scale from strongly agree to strongly disagree.

Secondary data

The researchers collects various information from different secondary sources such as internet, previous research work ,phd thesis ,journal,magazines and books .

Sample Design:

The researcher selected 190 respondents from Dapoli city with the help of convenient sampling methods.

LITERATURE REVIEWS

In past few years, numerous studies have documented the impact of internet evaluations, in particular, on purchasing decisions (Zhang et al., 2014; Zhong-Gang et al., 2015; Ruiz-Mafe et al., 2018; Von Helversen et al., 2018; Guo et al., 2020; Kang et al., 2020; Wu et al., 2021). These studies have discussed a variety of aspects of how consumers interact with online reviews, such as the importance of textual factors (Ghose

THE EFFECTS OF ONLINE REVIEWS ON CONSUMER TRUST AND PURCHASING DECISION

and Ipeirotiss, 2010), the impact of a product review's level of detail and the degree to which reviewers concur on the review's credibility, and consumers' purchase intentions for search and experience products (Jiménez and Mendoza, 2013).

For instance, Ghose and Ipeirotiss (2010) found through text mining that textual characteristics including subjective, spontaneity, accessibility, and linguistic accuracy have an impact on how product reviews are used. In a similar vein, Boardman and McCormick (2021) discovered that, depending on the content, purpose, and consumer's aim of each web page, consumer attention and behaviour varies throughout the shopping process. Additionally, Guo et al. (2020) demonstrated that positive online customer reviews increase the possibility of a purchase more so than negative ones. They also discovered that negative online customer reviews have a considerable impact on purchasing decisions, but only when combined with perceived legitimacy and perceived diagnosticity. These studies imply that consumer behaviour will be influenced by online product reviews, but the overall impact will be impacted by a variety of circumstances.

(Archak et al., 2010). Generally, positive comments tend to prompt consumers to generate emotional trust, increase confidence and trust in the product and have a strong persuasive effect. On the contrary, negative comments can reduce the generation of emotional trust and hinder consumers' buying intentions.

DATA COLLECTION AND ANALYSIS

Age wise classification

Age	Frequency	Percent
Below 15	51	26.84
15-25	68	35.78
25-35	27	14.21
35-45	20	10.52
45-55	13	6.84
Above 55	11	5.78
Total	190	100%

(Source: Survey data)

Gender Wise Classification

Gender	Frequency	Percent
Male	93	48.94
Female	97	51.05
Total	190	100%

(Source: Survey data)

SPDC DNYANAKOSH

Occupation wise Classification

Occupation	Frequency	Total
Student	67	35.26
Employed	50	26.31
Unemployed	31	16.31
Self-Employed	23	12.10
Others	19	10
Total	190	100%

Respondent's opinion on Likeart Scale

Sr. No.	Question	Strongly agree	Agree	Neutral	Disagree	Strongly disagree	Total
1.	Do you do online shopping?	126 66.31%	37 19.47%	21 11.05%	04 2.10%	02 1.05%	190 100%
2.	Do you buy branded products?	69 36.31%	48 25.26%	37 19.47%	24 12.63%	12 6.31%	190 100%
3.	Are you repeatedly buy certain products?	98 51.57%	56 29.47%	24 12.63%	7 3.68%	5 2.63%	190 100%
4.	Are you a loyal consumer for the product you buy	39 20.52%	58 30.52%	64 33.68%	21 11.05%	8 4.21%	190 100%
5.	Would you buy a product if your favourite celebrity is endorsing it ?	74 38.94%	36 18.94%	20 10.52%	44 23.15%	16 8.42%	190 100%
6.	Do you always read consumer review before buying a product	120 63.15%	50 26.31%	14 7.36%	07 3.68%	03 1.57%	190 100%
7.	Do you always trust consumer reviews& ratings?	113 59.47%	49 25.78%	17 8.94%	07 3.68%	04 2.10%	190 100%
8.	Is negative consumer reviews effect your purchase decision	98 51.57%	56 29.47%	24 12.63%	06 3.15%	06 3.15%	190 100%
9.	Have you ever continued to buy thing out of your prepared budget?	71 37.36%	78 41.05%	33 17.36%	03 15.78%	05 2.63%	190 100%
10.	Is consumer reviews benefits you always while shopping online ?	103 54.21%	77 40.52%	05 2.63%	03 1.57%	02 1.05	190 100%

DATA INTERPRETATION

The above data interpret that majority of the respondents which are the regular shoppers of online shopping read review before buying a product from online shopping. Negative review effect their purchasing decision

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and break their trust about the product .also it shows that majority of the consumers consider consumer review as the important factor which determined that they purchased that particular product or not also researcher saw that consumer prepared budget before purchasing certain product but after entering in glamorous and attractive shopping websites they spend out of their budget and after ordering they regret about it also majority of the consumers are repeatedly buy certain products.

FINDINGS

- The major findings shows that 126 respondents out of 190 are strongly agree that they do online shopping were only 2 respondents didn't agree about the question.
- 36.31%respondents buy branded products while 19.47% respondents are neutral about the questions.
- 51.57% respondents repeatedly buy certain products from online shopping.
- Majority of the consumers read consumer review as well as blindly followed them and consider the review as a 100% genuine reviews about the product.

SUGGESTIONS

1. 79% of customers give internet reviews the same weight as personal recommendations. When evaluating a company's legitimacy, word-of-mouth has always been relevant. However, word-of-mouth has always been a crucial factor in determining a company's reputation, especially with the widespread availability of internet. However, given how widely accessible the internet is today and how significant e-commerce is becoming, online reviews are now just as credible as personal recommendations from people you know. The crucial point to keep in mind in this situation is that customers will believe a review if it is real and of excellent quality. It's probably to have the opposite effects in the opposite result and turn customers off if it appears spammy or paid for.
2. A website with customer reviews is more likely to have customers make purchases from it than one without. By showing reviews on your website, companies can increase conversion rates by giving potential customers more certainty when making purchases and by removing any remaining questions. Additionally, it can help increase the dependability and credibility of companies brand. Increases in exchange rate, visitor customer loyalty, and purchase frequency size and all result in an increase in sale
3. Negative reviews hurt your company's reputation. A negative review casts a negative light on the calibre and dependability of your good or service. There is, however, a very significant condition to take into account: a product or a service page's trustworthiness would be reduced if there are no unfavourable reviews. If a company has unfavourable online reviews, all 3.86% of individuals are afraid to really do business with the company. All favourable reviews give the impression that the page as a whole is fake, while one or two tiny bad reviews show that you are a real company. After all, no one is perfect, and businesses are no exception. Take the less favourable evaluations as a chance to demonstrate your excellent customer service abilities.

CONCLUSION

All the research study conclude that Reviews are a significant deciding element for many buyers making online purchases. Reviews contribute to increased customer and business trust. A significant number of positive reviews combined with a high rating help establish an immediate trust that will eventually persuade active web users to become active paying consumers. We now know that consumer reviews affect their purchasing decisions. But researcher saw that majority of the consumers especially females and youngsters are more effected by reviews and ratings they never purchased low rating or bad review product but the fact is all the reviews are not 100% true some of them are fake or the reviews changes from person to person for e.g. 1 consumer orders the kurti from online shopping website it delivered on time and packaging is also good and she like that product she gives the product 5 start rating and a nice review on the basis of timely delivery, packaging and quality of the product but in contrast any other consumer ordered same product but received different size, default or changed in color of the product as shown on website the consumer immediately give the product bad reviews and ratings .so Reviews have advantages as well as disadvantages .

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ADVANTAGES OF REMOTE WORKING EMPLOYEES DURING COVID-19

Jagruti J Kadam and Manish Nagula
Students, TYBMS

Chetana's Hazarimal Somani College of Commerce Economics, Mumbai

Email: jagrutikadam1403@gmail.com; manishnagula20@gmail.com

ABSTRACT

The pandemic sweeping the world, COVID-19, has rendered a large proportion of the workforce unable to commute to work, as to relieve the spread of the virus. This has resulted in both employers and employees seeking for alternative work arrangements, especially in a fast-paced metropolitan cities like Mumbai. Due to the pandemic, most if not all workers experienced work from home (WFH). Hence WFH has become a policy priority for most governments. In doing so, the policies must be made keeping in mind the practicality for both employers and employees. However, this current situation provides unique insight into how well working from home works, and may play a vital role in future policies that reshape the current structure of working hours, possibly allowing for more flexibility.

Not only has this had individual impacts, but it has also impacted countries as a whole from an economic standpoint, bringing an array of economic sectors to a complete standstill. While there was a lot anticipated and there were countless warnings, especially from those working in public.

INTRODUCTION

During the COVID-19 pandemic, governments around the world introduced various measures to try and reduce the risk of infection. This included advice or requirements for people to work from home, or remotely unless they were key workers. This represented a major and sudden change for a large number of people. The working from home experience is multi-layered. Understanding its effects, at a personal and societal level, requires consideration of how someone's home environment, work related responsibilities and their personal circumstances interact to impact on their experiences. Due to very diverse experiences and complexity of people's nature. it is not possible to make a nationwide assessment and summary of how people experienced working from home.

Keeping this in mind, the aim of this research was to explore a range of working from home perceptions thoughts and experiences and then set out the advantages and disadvantages.

OBJECTIVE

- Improved Employee Productivity
- Improved Work Life Balance, leading to Less Employee Turnover
- A, Bigger, Better Talent Pool
- Reduced Overhead and Overall Cost.

REVIEW OF LITERATURE

MUHAMMAD RAZED IRFAN, MUHAMMAD BILAL & RAHMAN ZAIRE: (2017)³, talks about the work from home fight to negative outcome of professional consumption and administrative obligation and the organization check the quarter production gross revenue also the employee absence. The employee is equal to work from home struggling with the related through worker's stress. Hence the work from home is essential dispute to financial transactional business and in relation to administrative efficiency as well as job related strength. Extended unyielding daily working time remains a dependable analyst to work from home between back-office workers and predominantly individual occupied work place. The extensive conflict assumption is used in innovative techniques should be planning for lending business. The document terms statistical analyses estimate trapped the daily as well as weekly task in the study. Quantifiable is relating to information is existing show with useful indication and creativity for their workers. The appraisal offers common law and also another daily task allocation develops work from home as well as commercial administrations. The paper completes plan groupings offer best facilities and creativities will support the great presentation effective structures in financial segments.

RAHUL SACHIDANAND: (2013)⁷, the data to schedule the shifts for employee's daily routine especially the lot of women employees working in the business processing outsources sector. WORK FROM HOME is innovative encouragement to women employees in BPO sector. Nowadays, women are interested to join in the BPO sector, as well the company providing more security to the women employees. Knowledge is most important and also the BPO sectors create opportunity will change the developments.

VARSHA RAJ & VASANTH: (2012)⁸, In this article the author said that the Work Life balance of occupied women in service sector. The enumerated teams that the vital concert of its personnel which in turn depends on frequent dynamics. The relationship between personnel and focused life can be proficient over warm intelligence. Better emotion management is necessary in order to accomplish objective of life.

RESEARCH METHODOLOGY

This study is based upon primary and secondary data basis. The primary data is collected by conducting a questionnaire Surveys by using Quota Sampling Method. A sample of respondents was taken for the research and the secondary data is collected by referring various research papers on websites.

ADVANTAGES OF REMTOELY WORKING EMPLOYEES DURING COVID-19

Primary Data:

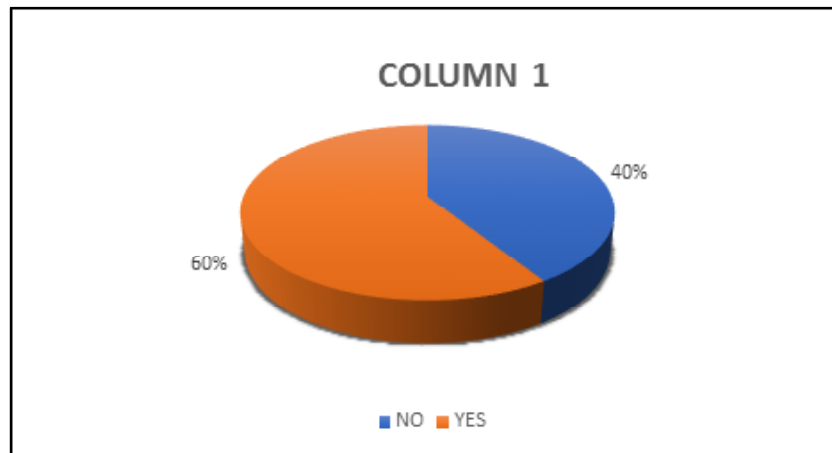
- Questionnaire
- Personal Interview

Secondary Data:

- Internet
- Research paper

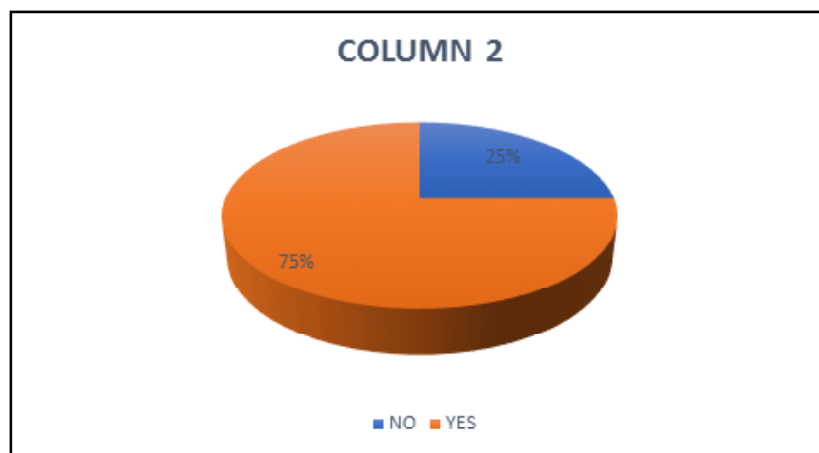
DATA ANALYSIS

Question 1) Have you worked from home before?



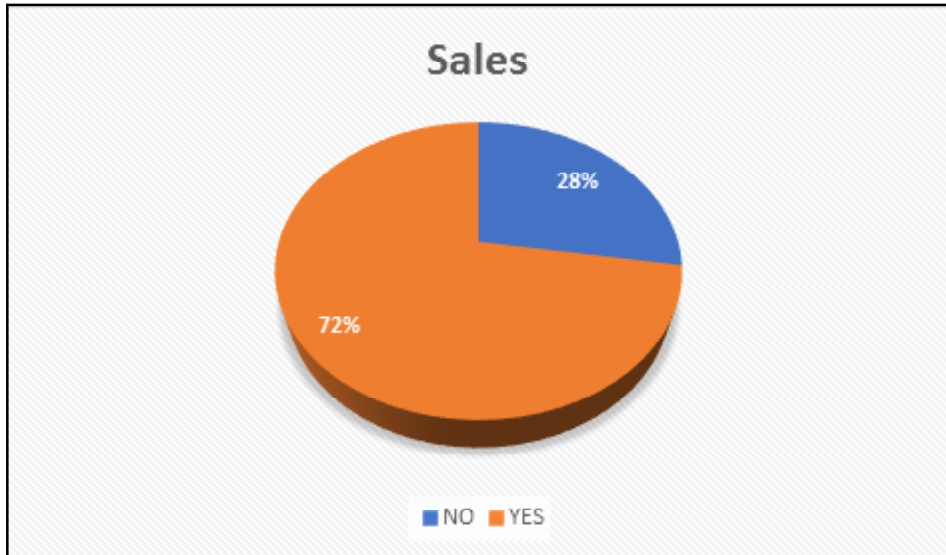
INTERFACE – Out of 100%, 60% of respondent said yes and 40% of respondent said No for the question asked have you work from home before. As it can be seen that majority of them have worked from home.

Question 2) Does Work from home increased flexibility?



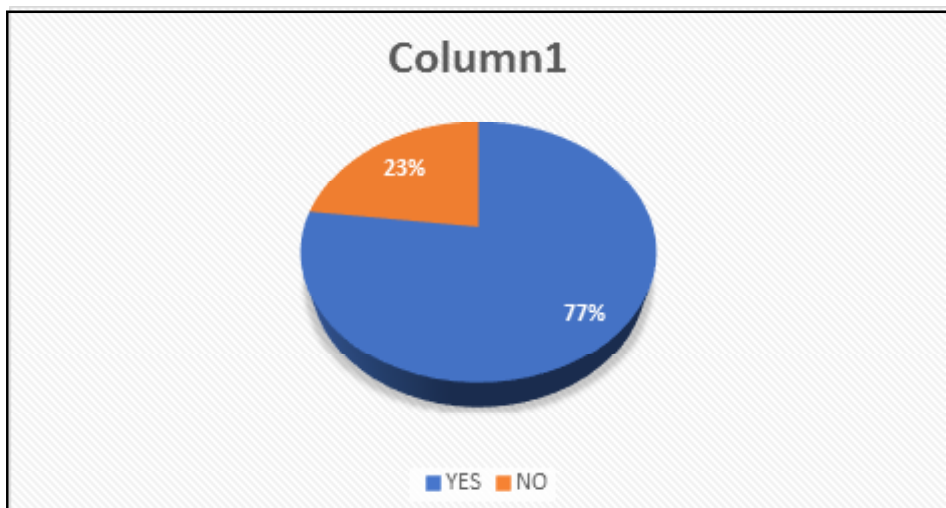
INTERFACE – Out of 100 % 75% of respondent said yes and 25% said No for the question asked does work from home increased flexibility. As it can be seen that majority of them are agreed with the question.

Question 3) Does remote working helps to improve work life balance



INTERFACE - Out of 100%, 72% of respondent said Yes and 28% said No for the question asked does remote working helps to improve work life balance. As it can be seen that majority of them says that their working helps to improve work life balance.

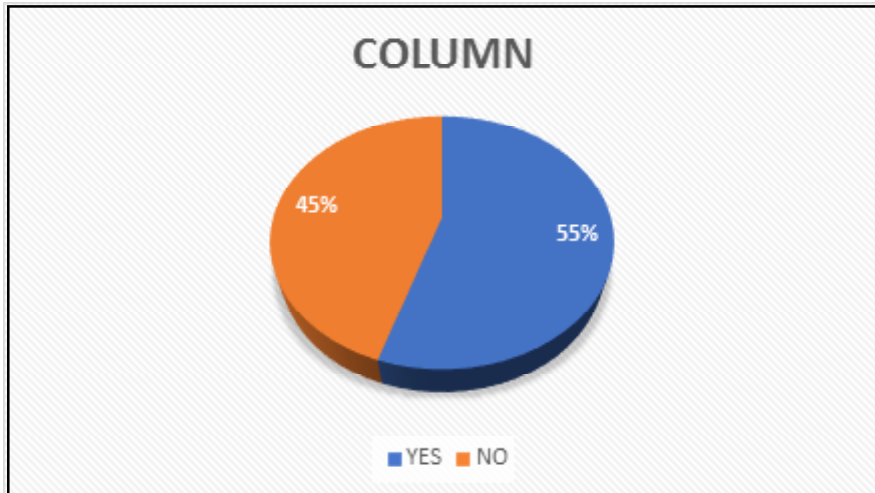
Question 4) Is there a loss of social interaction because of work from home?



ADVANTAGES OF REMTOELY WORKING EMPLOYEES DURING COVID-19

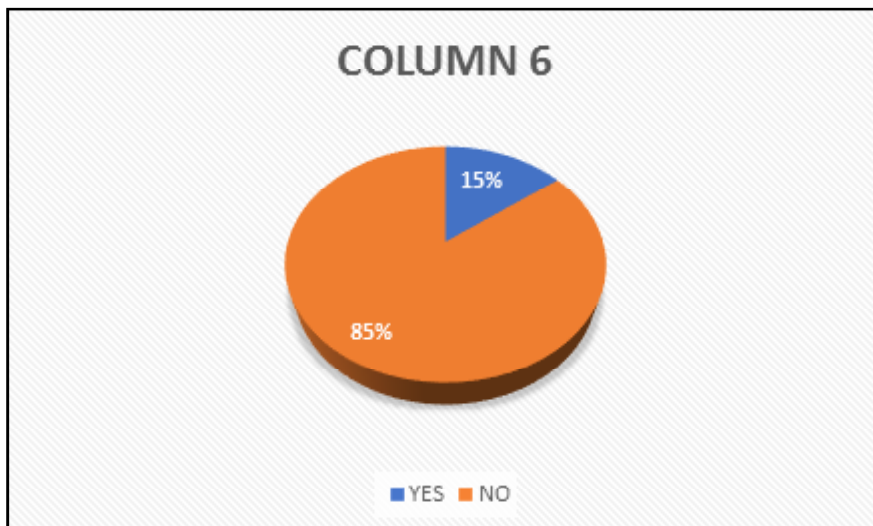
INTERFACE – Out of 100%, 77% of respondent said Yes and 23% said No for the question asked Is there a loss of social interaction because of work from home. As it can seen that majority of them have been agreed with the question.

Question 5) Do you have a separate and suitable space in your home for work?



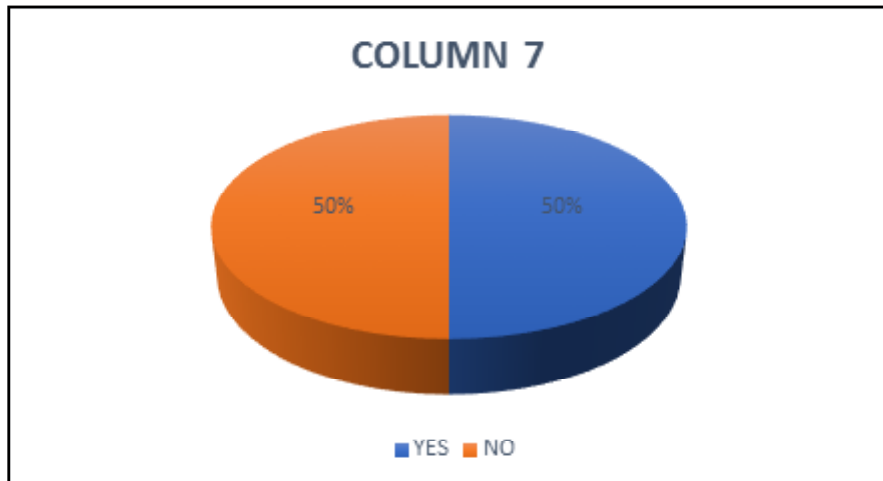
INTERFACE – Out of 100% 55% of respondent said Yes and 45% said No for the question asked Do they have a separate and suitable space in your home for work. As it can seen that majority of them have been agreed with the questions.

Question 6) Have you been able to stick to a work routine or schedule?



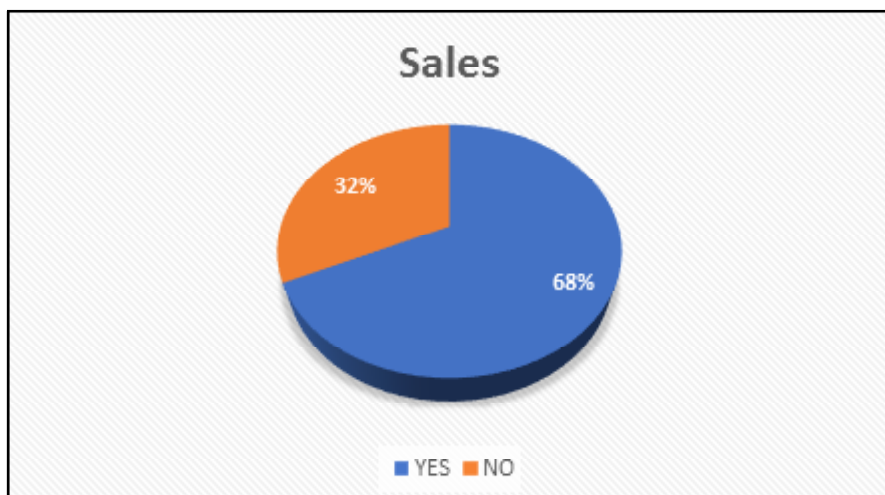
INTERFACE - Out of 100% 15% of respondent said Yes and 85% said No for the question asked Do they been able to stick to a work routine or schedule. As it can see that majority of them have been not agreed with the questions.

Question 7) Is it easy to reach your teammates and teams leaders when you need?



INTERFACE – Out of 100%. 50% of respondent said Yes and 50% said No for the question asked that it is each to reach your teammates and teams leaders when they need. As it can see that majority of them have been not agreed with the questions.

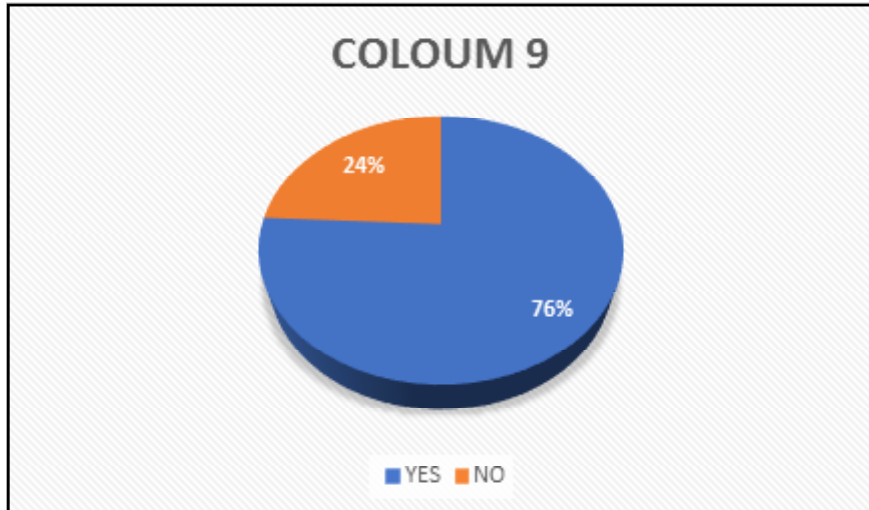
Question 8) Do you take regular breaks?



ADVANTAGES OF REMTOELY WORKING EMPLOYEES DURING COVID-19

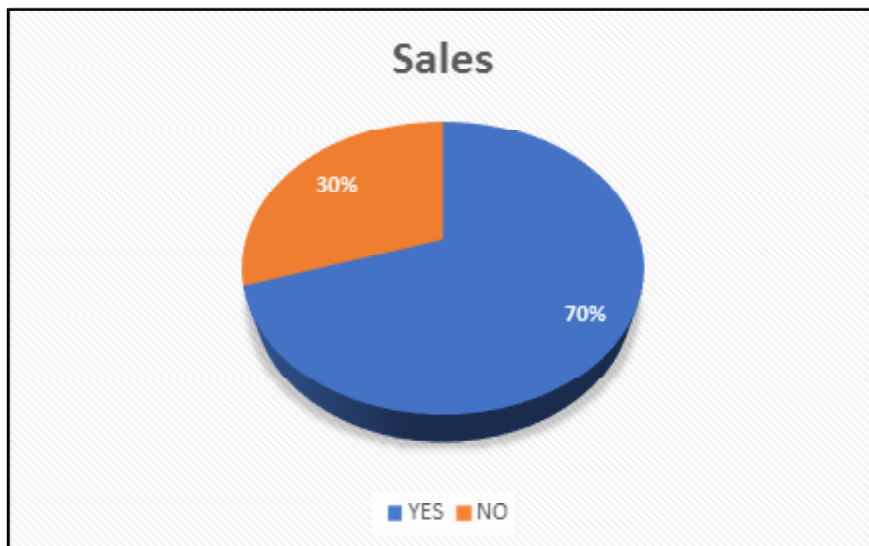
INTERFACE - Out of 100%, there are 68% respondent said Yes and 32% respondent said No for the question asked do they take regular breaks. As it can be seen that the majority of them take regular breaks.

Question 9) Are you in regular contact with your team and manager?



INTERFACE – Out of 100%, there are 76% respondent said Yes and 24% respondent said No for the question asked do they regularly contact with your team and manager. As it can be seen that the majority of them contact with team and manager

Question 10) Do you feel trusted to work from home?



INTERFACE – Out of 100%. 70% respondent said Yes and 30% respondent said No for the question asked do they feel trusted to work from home. As it can be seen that majority of them feel trusted to work from home.

CONCLUSION

An amazing 99% of respondents said they were satisfied with their current remote work situation and would like to continue working remotely (at least in part) for the remainder of their careers. 99 per cent! I can't imagine another question that would elicit such a degree of agreement among workers other than "Would you like to continue to get paid for your work?"

Not only were the respondents in lock-step with regard to their satisfaction, 95% indicated they would recommend remote work to someone else. Taken with other results that show companies are mostly satisfied with the results they're getting from their remote teams, and it's safe to say remote work isn't going anywhere and will likely only grow.

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DIGITAL INCLUSION - A NEED & REQUISITE IN TODAY'S COMPETITIVE WORLD

Nishmita B. Rana
Research Scholar, Mumbai City
Email: nishmitaahuja1995@gmail.com

ABSTRACT

Today's world, rather than today's updated world, is full of digitalization & has scrapped the traditional mode of living. In layman's language, we live in a digitally occupied world where adaptation to new & upgraded technology is a must. Every individual has to accept revolving changes & apply them to its day to day living. This has introduced a concept "Digital Inclusion" which states the involvement & access of each & every individual to the digital world. India is a country where illiteracy is climbing up more stairs than literacy. It becomes difficult for illiterate people to learn & adapt to new technologies as they don't possess the knowledge of the same. Hence, to cope up with this, digital inclusion becomes a requisite. This research paper studies the general perception of people of all ages towards digital inclusion & the way it must be taught & shared with everyone. The study is done in Mumbai City where data is collected from about 100 people having digital knowledge & experience. The data is collected through a questionnaire & personal interview where they share their own experience. The data was analyzed & interpreted on percentage basis & a conclusion was drawn out of it.

Keywords: *Digital Inclusion, Digitally occupied, Upgraded technology, Requisite, Digital world.*

INTRODUCTION

Digital inclusion is a term which implies that every individual must take the benefit of internet & technology which is upgraded as the world demands. It makes sure that everybody is reaching out to the facilities which are now available to us. Today's world is highly competitive & it chooses the one which has complete knowledge & experience about almost everything. With this, the country strives towards providing internet & other relevant facilities even to those areas where they are limited or not available. Mobile phones, laptops, tablets etc. plays a very important role in optimizing & curbing digital space to everyone. People have felt the importance of digitalization merely after the breakout of COVID 19 due to which everything went digital. Even children had to be digitally equipped as education has taken a new pace. Lectures, meetings, seminars, conferences etc. were all conducted online which is again an important part of the digital era. But for the entire country to be fully digital, there are many factors which need to be considered.

Requirements of digitalization

- 1. Knowledge of the digital world:** To have 100% digitalization, it is necessary for all of us to have complete knowledge of every aspect of digitalization. Up-gradation to the latest technology is essential to survive in this competitive world.
- 2. Internet facility:** Talking about technical aspects of digitalization, it will only work if we have a proper high speed internet facility everywhere. If the internet breaks down, digitalization would not progress.
- 3. Proper training & use:** Practice is what is needed to make everything work perfectly. Hence, knowledge is of no use until we start practicing it. People must adopt digitalization as a day to day need & use it in all walks of life. This will help make the entire country fully digitalized.
- 4. Updated technology:** Technology is a boom to the country which has made our lives easy & well versed. To have an optimum use of technology, one must have full knowledge of updated technology. Technology does not remain constant. It is dynamic. Hence, to survive in this competitive world, one must be ready to accept the change and update itself.

Digital Inclusion is a relatively new concept that attempts to address issues related to digital literacy and ICT. It can be viewed as a framework for addressing the readiness of communities to fully embrace the digital age. It includes availability & affordability of digital technology in the public sphere as well as household. Promotion of digital inclusion would increase the rates of education & employment leading to overall development of the economy.

OBJECTIVES OF THE STUDY

1. To understand the awareness of digital inclusion among people.
2. To know the perception of people towards digitalisation & its uses.
3. To study the factors necessary for a completely digitized country.
4. To find out the ways through which every single person can be included into the digital world.

REVIEW OF LITERATURE

- 1. Safa'A Abujarour, An-Najah National University (June 2021):** "Digital Inclusion: The Role of Information and Communication Technology alleviating Social Disruptions". This research paper was written during Covid times as Social disruptions had hit the world. The main purpose of writing this paper was to know how ICT has helped alleviate these disruptions by having a social inclusion of individuals and society. The paper mainly focuses on the conventional model of Work From Home (WFH) and experiences of people with respect to WFH.
- 2. Vanita, Karuna Sachdeva, I.B.P.G. College, Panipat (2017):** "Digital India - Opportunities and Challenges". This research paper is written with a view to highlight the different challenges faced by the Digital India Programme launched by our Prime Minister Mr. Narendra Modi to connect rural areas with

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high speed internet facility & improve digital literacy. It also describes the different opportunities of the programme for the people of the country.

SCOPE OF THE STUDY

This study will help to know how each & every single person can become a part of the digital world. Also, it will further generate ideas to have an upgraded knowledge of digitalisation. The study will help the country to bring in those people who are partially or completely deprived of digital aspects & be fully digital.

RESEARCH METHODOLOGY

The study was done by collecting primary data through a close-ended questionnaire. A questionnaire of about 15 questions (both open & close ended) was prepared & data was collected with the help of it. Sample size was 72 which means data was collected from 72 respondents. All the respondents were from Mumbai City as the research was done exclusively in the City. Also, the questionnaire consisted of 2 descriptive questions to know about the perception of respondents towards digitalization.

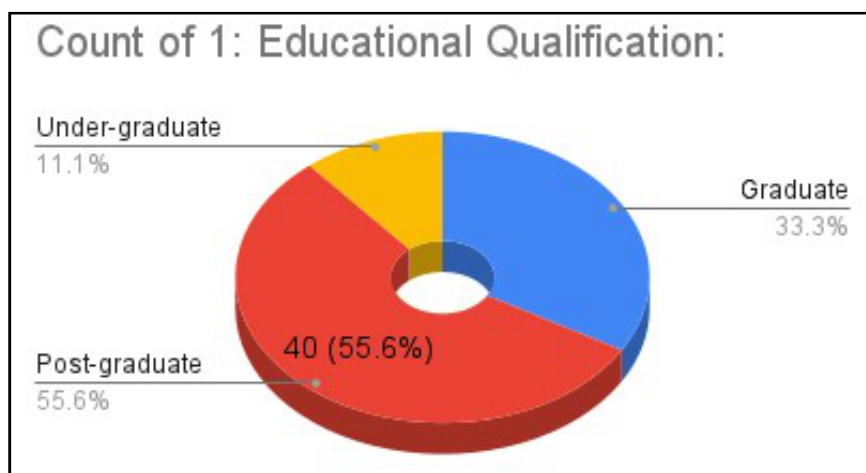
HYPOTHESIS

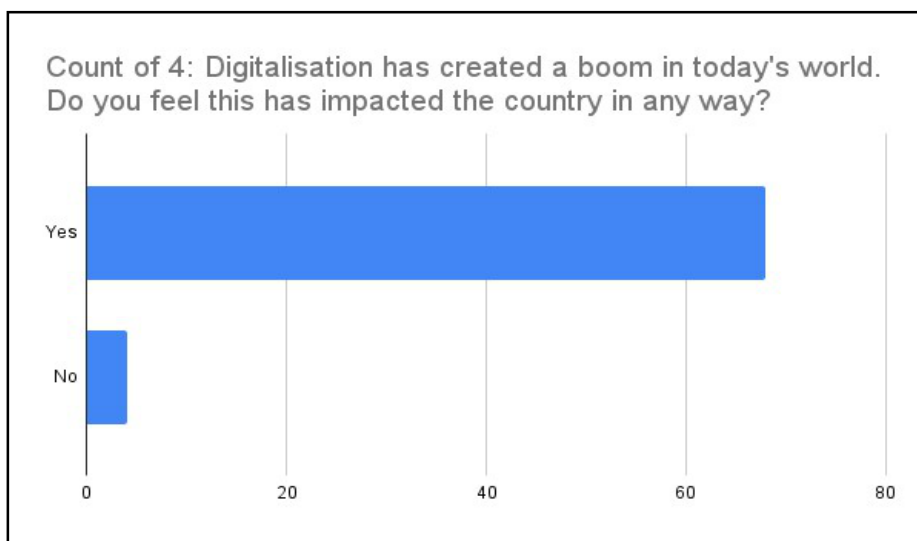
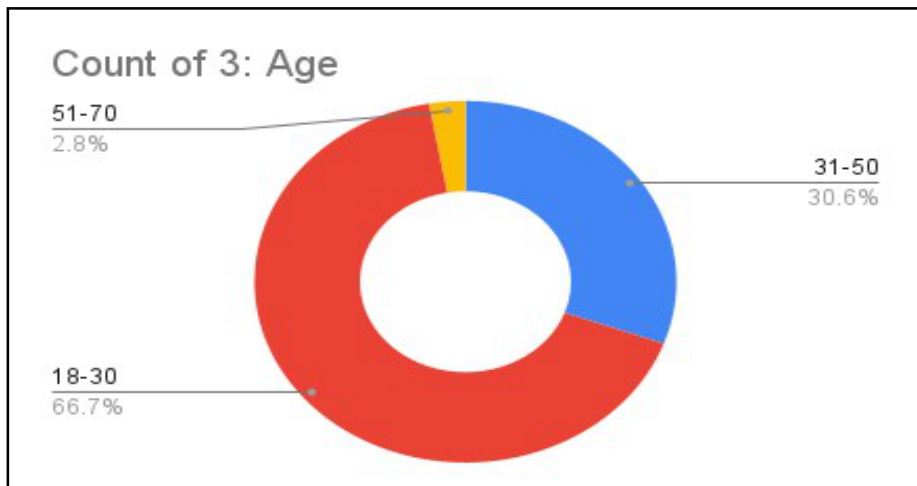
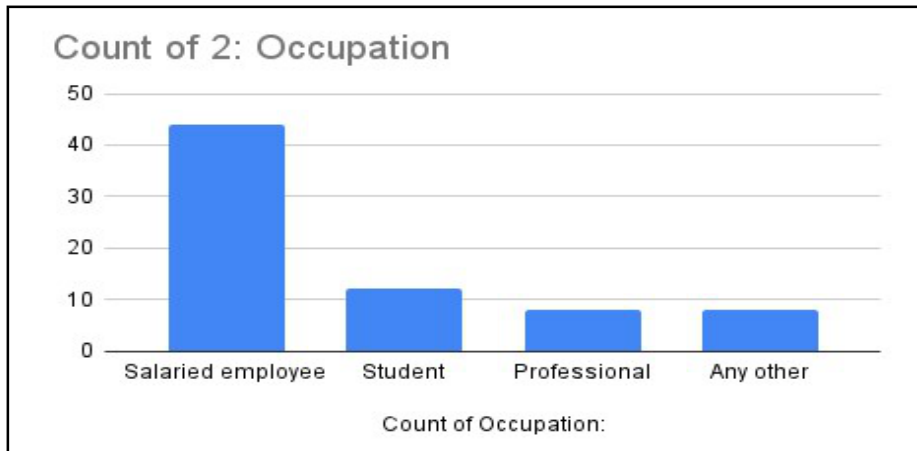
For the purpose of the study, the below given hypothesis was framed:

- **Null Hypothesis:** Digital Inclusion is not needed in today's world.
- **Alternative Hypothesis:** Digital Inclusion is needed in today's world.

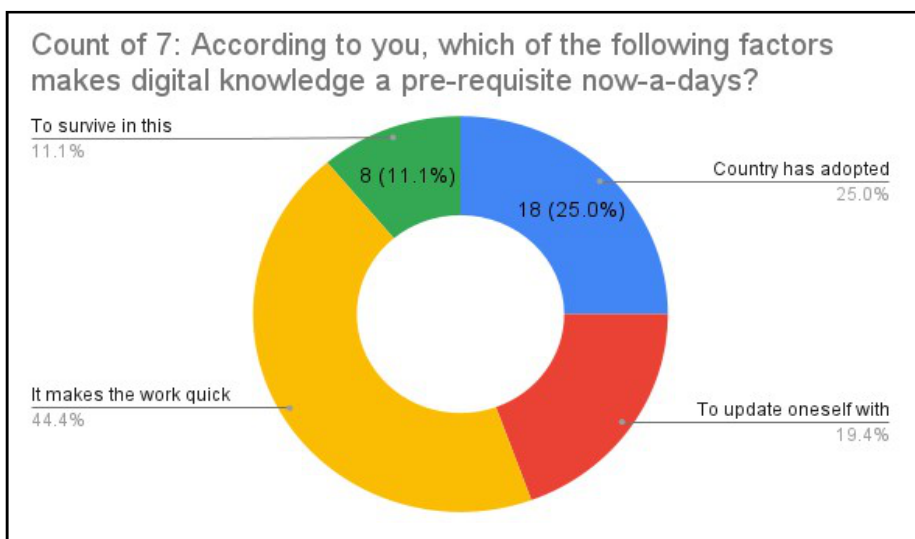
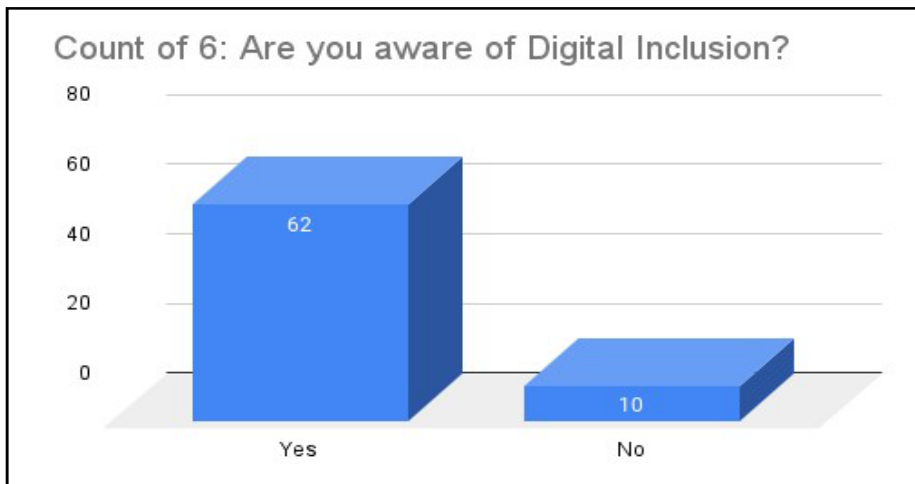
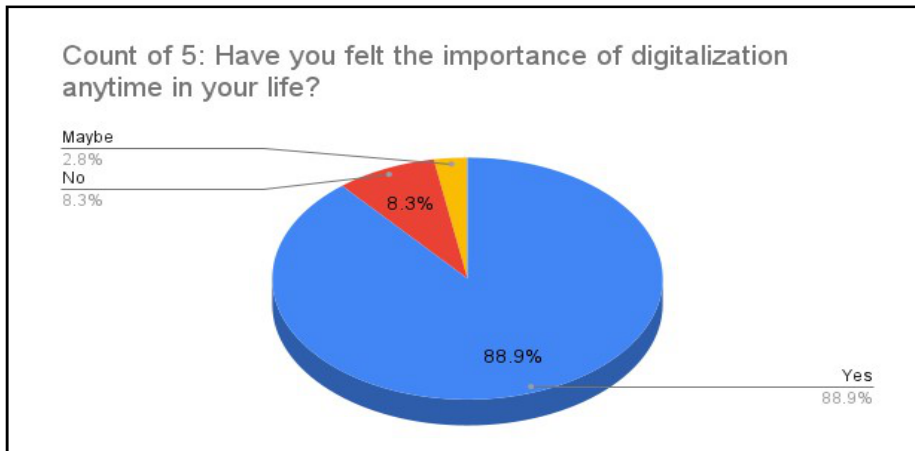
DATA ANALYSIS & INTERPRETATION

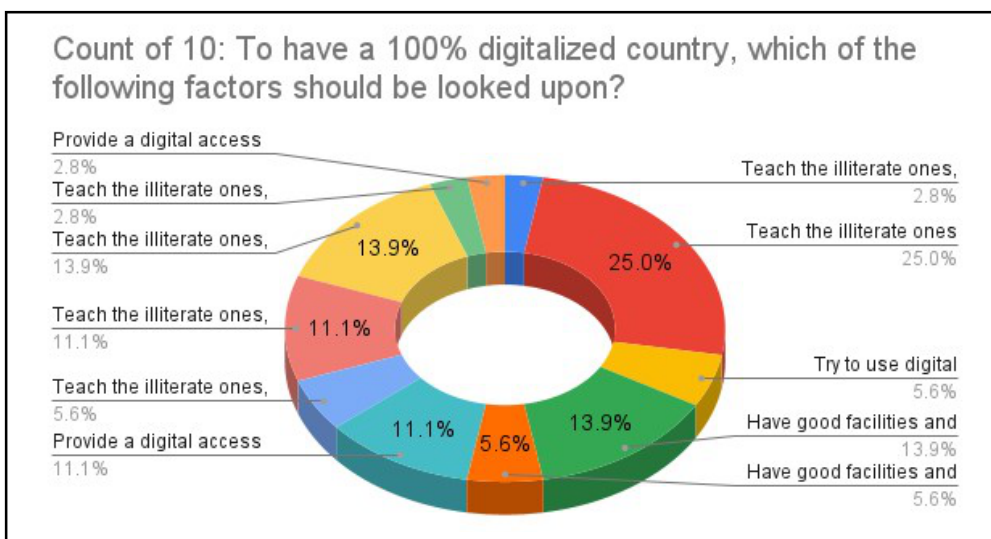
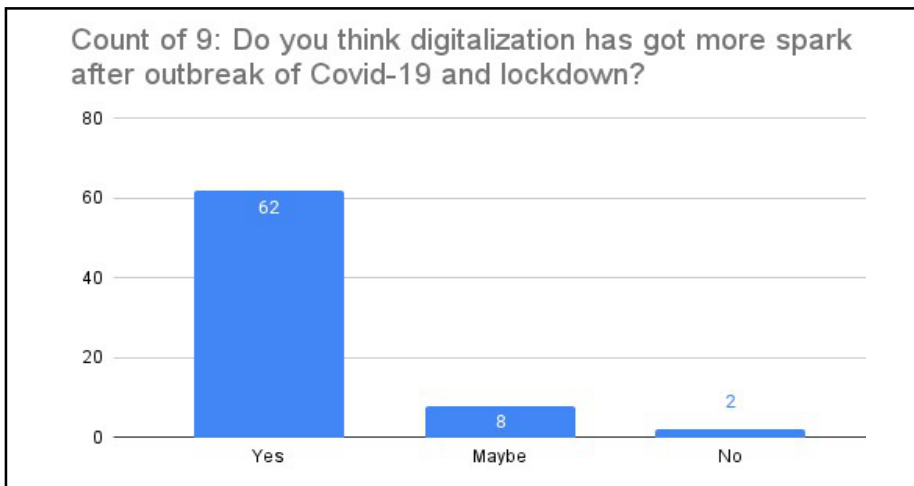
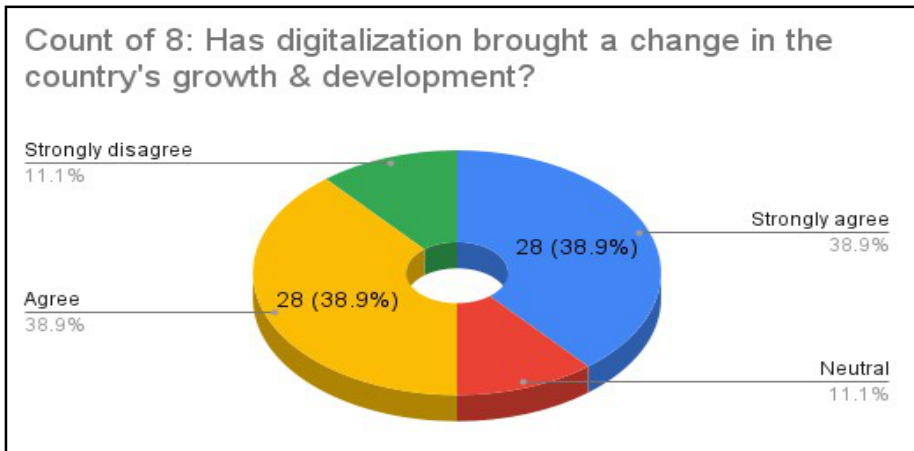
Data collected through the questionnaire was thoroughly analyzed & interpreted. All the data has been represented in diagrammatic & graphical form.



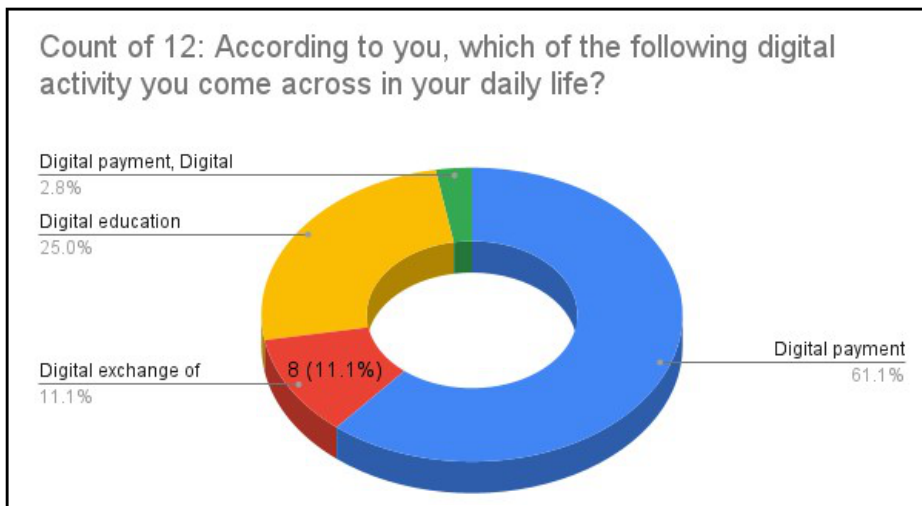
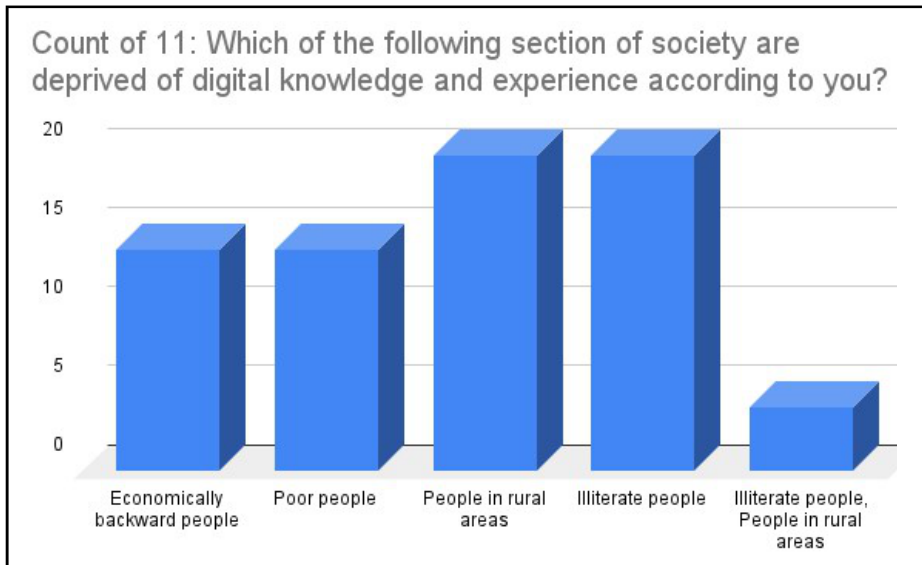


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FINDINGS

The data was collected from people having some knowledge & experience of the digital world. Of the entire population, 55.6% were post graduates, 33.3% were graduates & 11.1% of the population were under-graduate. More than 50% of the population were salaried employees whereas the rest of the respondents were divided into professionals, students & others. Also, the respondents were divided into different age groups as the study covers the entire population having digital knowledge & experience. Hence, as per the data collected, 66.7% of respondents fall under the age group of 18 to 30 years of age, 30.6% in the age group of 31 to 50 years while only 2.8% fall in the age group of 51 to 70 years of age. None of the respondents was above 70 years of age. 90.27% of respondents believe that digitalization has a greater impact on the country whereas only 9.72% believe it has no impact on the country's growth & development. 88.9% respondents have felt the

importance of digitalization in their lives while 8.3% have not come across the need for it.

When asked about digital inclusion, 62 (86.11%) respondents are aware about it while 10 (14.28%) are not at all aware of it. 44.4% of people think that digital knowledge is a prerequisite now-a-days as it makes the work quicker & faster. 25% of respondents think that it is a prerequisite because the country has adopted digitalization globally. Since the country is becoming completely digital, each one of us also has to accept it. 19.4% of people think that digitization is necessary to update oneself with new upcomings while according to 11.1% of the respondents, it has become a prerequisite to survive in this competitive world. Around 76% of the population think that going digital has brought a change in the country's growth & development. Also, when spoken about the change in digitalization era pre & post Covid 19, 86.11% of the respondents feel that digitalization has got more spark after the outbreak of Covid 19 & lockdown. Many sections of the society are deprived of digital access which consists majorly of people living in rural areas & illiterate people. Also, economically backward classes are one of them. To cope with this, teaching the illiterate ones, having good facilities & providing digital access to a large extent are some of the factors to be looked upon. According to 25% of the population, digital education occupies more space in the digital world followed by digital payment & digital exchange of information.

Therefore, with all these findings, the Null Hypothesis which is "Digital Inclusion is not needed in today's world" is rejected and the alternative hypothesis "Digital inclusion is needed in today's world" is accepted.

SUGGESTIONS

- Many respondents have suggested that the country must make digitalization mandatory which covers all the aspects of the economy such as education, purchase & sale transactions, medical facilities, tourism etc.
- If the country wants to have 100% digital inclusion, it is important for all of us to accept the ongoing digital cycle & its upgradation. For this, all the illiterate ones must be educated by creating awareness through advertisements or personal visits.
- Availability of digital gadgets, internet facilities at lesser cost & wifi access at all places can be a good move towards digital inclusion.
- A good quality technical support is what is needed to make digitalization work well.
- As digital Aadhar Authentication has already served the purpose of digitalization to a greater extent, linking to other ID proofs would be an ideal step for complete digitalization.
- Technical innovations have already changed the way of collaboration with the population. Even at a larger distance, it is now possible to communicate & collaborate with everyone just with a click. This has increased the level & way of communication. Hence, this must be trained to those people living in remote places who do not have knowledge & access to the technical innovations.

CONCLUSION

As we all are aware of the growing competition in all the sectors, being knowledgeable & experienced is the

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only way to survive & be a part of the race. For this, having complete information & knowledge of what's going on around the world is highly significant. People with in depth knowledge & competency will only be chosen in comparison with the one who doesn't possess any knowledge. Upgradation with new trends and technology becomes an essential indicator & a requisite for the smooth functioning of the economy. This makes digital knowledge a requirement for all of us in today's competitive world.

Although the covid phase has increased digitalization to a greater extent, still there are many remote areas which are deprived of digital equipment, gadgets, facilities etc. which needs to be taken into consideration if the country wants to be fully digitalized. The areas where people have lesser or no knowledge of technology must be educated by different means. Digitalization has improvised the country's growth & development in various sectors which ensures that it will have much more benefit if people continue to update & upgrade themselves with newer versions of technology. Technology has made everyone's life easy through completion of work in less time. Also, it has made people pro in downloading, using them & giving valuable feedback which is very useful for different companies. Technology has made online bookings easy with quick digital payments and lesser risk. Also, the banking sector has gained a lot of benefits with digitalization through online banking apps which helps people to transfer money anytime, anywhere & to anyone. Online activities do not require any physical infrastructure but a digital gadget such as mobile phone, laptop, tablet etc.

All these events proclaim that digitalization is very important in today's life. Hence, the Country must strive towards having complete digital inclusion which will make the economy grow & develop in all aspects at a high pace.

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EDUCATION 4.0: BREAKTHROUGH INNOVATIONS

Antariyami Mahala¹ & Dr. Bhavin Chauhan²

¹ (Corresponding Author) Research Scholar,

Department of Education, Faculty of Education and Psychology,
The Maharaja Sayajirao University of Baroda, Vadodara, Gujarat, 390002

Email: mahalaantarjyami@gmail.com

² Assistant Professor, Department of Education, Faculty of Education and
Psychology, The Maharaja Sayajirao University of Baroda,

Vadodara, Gujarat, 390002

Email: chauhan.bhavin-edu@msubaroda.ac.in

ABSTRACT

Education is the backbone of human civilisation. It decides what will be the future of our societies. It changes from time to time. Education 4.0 is the most recent era in which innovations and technologies have been revolutionizing the whole sector. These inventions altered the landscape of the previous educational system and started an unprecedented phase with digitalisation and cyber-physical innovations. Artificial intelligence, virtual reality, augmented reality, cloud computing, 5G networks, the internet of things, robots, 3D, and game-based learning are all part of Education 4.0. These innovations have the potential to meet the needs of 21st century skills such as critical thinking, creativity, scientific temper, multilingualism, problem-solving, ethics, social responsibility, and digital literacy. This paper highlights education 4.0 and different disruptive innovations due to the fourth industrial revolution and their educational implications.

Keywords: Education 4.0, Industrialization, Artificial Intelligence, Virtual Intelligence, Augmented Reality, 3D, 5G, Cloud Computing, Internet of Things

INTRODUCTION

It is the age of science and technology, where everything is advancing, and the role of education is becoming increasingly crucial. Several technological advancements like cloud computing, artificial intelligence, extensive information and research, smart robots and machines, distributed and portable computing systems, 5G networks, the internet of things, virtual reality, smart spaces, 3D printing technologies, quantum computing, and augmented reality are now being incorporated into education. These technological advancements and integrations with education have been significantly changing the paradigm of our education system from the first industrial revolution, which was started in the 18th century. We are now in education 4.0, which started parallel with the fourth industrial revolution. It diversifies education and addresses the needs of the 21st century, such as critical

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thinking, divergent thinking, communication, collaboration, creativity, innovation, information literacy, media literacy, ICT (Information, Communications, and Technology) literacy, flexibility and adaptability, initiative and self-direction, social and cross-cultural skills, productivity and accountability, leadership and responsibility, and problem-solving among the stakeholder of education (CBSE, 2020; AACTE, 2010).

A PATHWAY TOWARDS EDUCATION 4.0

Technology-driven Education 4.0 is a tough period in education. Technological integration is strengthening education, although it took a long time. The early industrialization employed steam and water to mechanise the produce (Miranda et al., 2021; Mudgil, 2021; Keser & Semerci, 2019; Sharma, 2019; Peters, 2017). During these centuries, essentialist and behaviourist education was founded on the three Rs: receiving by listening to teachers, responding by taking notes, studying books, and performing worksheets, and regurgitating by taking the same examinations as the cohort (Gerstein, 2014; Keats & Schmidt). The teacher presented class notes, handouts, textbooks, and films in a stand-up performance in Teacher-centered, rote-memorization education. Education 1.0 refers to these centuries (Miranda et al., 2021; Sharma, 2019; Gerstein, 2014).

The second industrial revolution used electric power to mass produce after the first (Mudgil, 2021; Keser & Semerci, 2019; Sharma, 2019; Peters, 2017). Education 2.0 emphasises communicating, contributing, and collaborating. Education 2.0 is humanistic and progressive, emphasising the human element in learning (Gerstein, 2014). Project-based learning, inquiry learning, cooperative learning, global learning projects, podcasts, social bookmarking, Skype, wikis, blogs, and other social networking in the classroom were included. Teaching is more andragogical and constructivist, with active, immersive, real, relevant, and socially networked learning experiences embedded into the class or course structure (Sharma, 2019; Gerstein, 2014; Keats & Schmidt, 2007; Hiemstra & Sisco, 1990 as cited in Gerstein, 2014). Education 2.0 is more flexible, promotes lifelong learning, eliminates geographical obstacles, and merges education and work (Yamamoto & Karaman, 2011). After the second industrial revolution, electronics and computer technology were employed to automate production, launching the third industrial revolution, or electronic age (Miranda et al., 2021; Mudgil, 2021; Keser & Semerci, 2019; Sharma, 2019; Peters, 2017). This notion underpins education 3.0, a personalised, self-determined education. A different group of three Cs—connectors, creators, and constructivists—is in the focus (Gerstein, 2014). Here, learners create shared knowledge assets and profit from social networking. Education 3.0 is connectivist and heutagogical (Gerstein, 2014). Teachers, learners, networks, linkages, media, resources, and tools constitute a unique organism that may suit the requirements of learners, educators, and society. Education 3.0 recognises that each instructor and student's journey is unique, personalised, and self-determined (Sharma, 2019; Gerstein, 2014). Finally, the fourth industrialization that led to Education 4.0.

EDUCATION 4.0

Education 4.0 combines human energy, intelligence, and innovations (Fisk, 2017). It took shape during the fourth industrial revolution, which was seen in the twenty-first century. Today we are in the twenty-first century, which means we are in education 4.0. Where critical thinking, creative thinking, divergent thinking, analytical thinking, reasoning, collaboration, communication, innovation, research, information literacy, technology literacy, information and communication literacy, soft skills, social skills, flexibility, leadership, scientific literacy, financial literacy, civic literacy, entrepreneurialism, global awareness, management, judgement,

environmental understanding, scientific reasoning and health and wellness literacy, emotional intelligence, coordination and cooperation are the principal needs of education (The World Economic Forum, 2022; CBSE, 2020; NEP,2020; World Economic Forum, 2016; AACTE, 2010). To accomplish this, we are combining twenty-first-century innovations with education, such as cloud computing, artificial intelligence, extensive information and research, smart robots and machines, distributed and portable computing systems, 5G networks, the internet of things, virtual reality, smart spaces, 3D printing technologies, quantum computing, and augmented reality (Mudgil, 2021; Himmetoglu et al., 2020; Moid, 2020; NEP 2020; 2022, Halili, 2019). This integration makes education more comprehensive, ever-ready, self-paced, and inclusive and introduces blended learning, flipped classrooms, project-based learning, remote learning, open educational resources, Massive Open Online Courses (MOOCs), learning how to learn, sustainability, cloud computing, blockchain, artificial intelligence, augmented reality, virtual reality, multidisciplinary education, practical methods of learning, and adaptive learning content (Himmetoglu et al., 2020). Education 4.0 enables education to create change (Sharma, 2019), bringing a rebellious shift in each sphere of education. It redesigned the curriculum, redefined the role and functions of all the education stakeholders, and changed our education system's infrastructure pedagogy and evaluation pattern through its disruptive innovations (Kumar et al., 2020).

DISRUPTIVE INNOVATIONS IN EDUCATION

Education 4.0 yields some breakthrough innovations that significantly change the topography of education in the global education landscape. It is preparing a one-of-a-kind educational foundation using a cyber-physical system, a combination of hardware, software, and biology, as well as advanced communication and connectivity.

The followings are the breakthrough innovations that have revolutionized the education world:

ARTIFICIAL INTELLIGENCE

Artificial intelligence is an emerging innovative, and derivative field of education. All areas—academic, institutional, administrative, assessment, evaluation, and tutoring—are affected. Analysis, decision-making, deep learning, and machine learning become more efficient (Cope et al., 2020; Verma, 2018). AI in schooling revolutionised the system. It transformed education's goals, instructional methods, discipline, teachers' and students' roles, curriculum, teaching-learning materials, school management, and administration (Kengam, 2020; Verma, 2018; Nye,2014). It makes education accessible to all social groups, specially-abled children, linguistic groups, age groups, and ethnicities (Kengam, 2020; Pedró et al., 2019). In the future, artificial intelligence will make admittance to assessment easier, more effective, faster, and cheaper. Using synchronous and asynchronous computers, it promotes collaborative learning and personalization (Gocen & Aydemir, 2020; Kengam, 2020; Pedró et al., 2019; JandaNikos et al., 2001).

Students' smartphone addiction is the largest challenge for the teaching-learning community. Artificial intelligence capitalizes on this. It helps us teach and learn by reading mood and understanding levels using facial and gesture recognition technologies (Kengam, 2020; Pedró et al., 2019). The chatbot is an example of artificial intelligence, that offers an interactive and convenient way to access information, support, and improve students' learning experiences.

LOUD COMPUTING

Cloud computing is another boon of the twenty-first century that enables anywhere, anytime education and enhances the effectiveness of education (Kumar et al., 2017; Waga et al., 2014). It is a ubiquitous, convenient, on-demand network where students, teachers, and other stakeholders can create their own “Cloud-Based Personalised Learning Environment” or use m-learning to access Open educational resources from the cloud. It centralises resources and allows multiple people to access them through multiple devices. It offers students simple and creative learning experiences with personalization. It provides numerous advantages, including personalised learning, reduced course fees, increased accessibility, improved management and administration efficiency, improved educational quality, reduction of required infrastructure, standardised content, increased collaboration, and scalable learning (Kumar et al., 2017; Saini et al., 2017; Bouyer & Arasteh, 2014; Waga et al., 2014; Rao & Challa, 2013). Different virtual universities, distance universities, and educational technology companies are emerging in the current global scenario and expanding the scope of education with the help of cloud computing (Bouyer & Arasteh, 2014). IBM Cloud, Microsoft cloud, Google cloud, and Dropbox are some of the clouds. Learning Management System and Google classroom are two examples of cloud computing being used in education to improve educational outcomes.

ROBOTICS

The robotics is one more marvellous creation of human intelligence. It is a three-dimensional physical object that moves in space and time. Also, it can emulate human/animal behaviour. It assists students in promoting twenty-first-century skills such as problem-solving, critical thinking, teamwork, higher-order learning, and computational thinking skills, as well as reflecting on their learning. It also assists students in developing skills that are difficult to learn in traditional classes but are critical in scientific and engineering practices (Gura, 2012; Chambers et al., 2007). It can potentially improve academic skills such as scientific process comprehension, scientific concept development, and improvement of achievement scores (Barker & Ansorge, 2007; Williams et al., 2007; Highfield, 2010). Robotics is supplementing and supporting teaching-learning activities in 21st-century classrooms, challenging students’ creativity while improving cognitive skills and motivating them to be active learners. Robots are playing an increasingly important role in education, and it simplifies the role of the teacher. The apt example of it: a Nao model as part of a European research project called L2TOR, with the goal of teaching young children a second language. The robot acted as a tutor, giving students the individual attention they needed to learn a new language at their own pace.

THE INTERNET OF THINGS

The internet of things is another twenty-first-century innovation with artificial intelligence, connectivity, sensor, and smart devices. It increased the assortment of activities, increased student participation and collaboration, and raised the level of academic processes. It has broad implications for online education, computer science education, research and industry, scalable manufacturing, low cost, and the long term. It facilitates the teacher in teaching and managing the class, as well as improving students’ academic achievement. Gamification and a smart classroom are pivotal needs of this era. The advent of the internet of things has made it more effective and productive. Wearable technology is another aspect of modern life that will be made more convenient by the internet of things. Attendance monitoring systems in education will be simpler and more

accurate, allowing teachers to manage better and administer classes. It personalises education through feedback, which is the other side of Education 4.0. It improves educational facilities by utilising the internet of things (Ali & Nihad, 2021; Remya, 2021). Another internet of things facilitation is the smartbook. It lowers the cost and labour of education by automating processes outside of the traditional educational process. It personalises education, fosters global networking, improves smart QR code usage, simplifies data collection and analysis, fosters group work collaboration, improves campus safety, improves learning experiences and outcomes, and facilitates efficient institutional management (Thiyagu, 2017). Smart boards, smart ebooks, and educational apps like ClassDojo that allows parents to see student schoolwork via photos and videos. Class Dojo is used in 95% of all K-8 schools in the U.S. and 180 countries and messages can be translated into 35 languages automatically.

3D PRINTING

Another human innovation that improves the teaching-learning process is 3D printing. It is an effective teaching tool for teachers and a useful learning tool for students. It enables the learner to grasp any concept or idea quickly. It is a tool that allows us to give our digital data a physical appearance (Pai et al., 2018). It can potentially create an immersive and dynamic learning environment for everyone in the teaching-learning process. Also, it facilitates personalised learning for the visual learner. It develops curiosity among students and is used to teach design, and creativity skills, produce artefacts that aid learning and create assistive technologies. 3D printing offers a way for students to truly connect to the subject matter by physically manipulating ready-printed teaching aids or by designing tools themselves. One of the appropriate examples is THE MAKERBOT REPLICATOR+ that helps students for concept forming and designing their own concept.

AUGMENTED REALITY

Augmented reality is another innovation in education 4.0 that combines ubiquitous computing, tangible computing, and social computing. It provides unique affordances by combining physical and virtual worlds and continuous and implicit user control of the point of view and interactivity. It has three characteristics: it combines the real and virtual worlds, interacts with the user in real-time, and is registered in a 3D space. It allows students and teachers to see the real world while supplementing reality without completely immersing them in a synthetic environment (Kesim & Ozarslan, 2012). Augmented reality is a cutting-edge innovation that facilitates learning, increases student motivation and curiosity, increases student achievement, increases student participation and cooperation in learning, develops positive attitudes, reduces cognitive load among students, and ensures learning is enjoyable (Sirakaya & Sirakaya, 2018). For instance, 'Elements 4D' and 'Anatomy 4D' apps cover topics in chemistry and anatomy. 'Arloon Plants', 'Arloon Mental Math', and 'Arloon Geometry' focus on botany, arithmetic, and geometry.

VIRTUAL REALITY

Virtual reality is an immersive, hands-on innovation in education 4.0 that is changing the landscape of education. It creates opportunities for learning in a real-world setting. It promotes immersion, interaction, and participation (Pinho, 2004). It facilitates students' metaphysical comprehension and assimilation. It provides

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three-dimensional computer environments with advanced forms of interaction that can motivate students to learn. Using the objective and the real environment makes learning more interesting and fun, increases motivation and attention, and reduces costs (Piovesan et al., 2012). The use of virtual reality in education simplifies teaching and learning for both teachers and students. It increases student engagement, allows constructive learning through meaningful experiences, provides authentic experiences, allows for new perspectives and empathy, allows creativity, and allows the visualisation of difficult models (Hu Au & Lee, 2017). Visual simulations to train the soldiers for battle field, games to create smart and quick moves-VR boxing and exploring plants/universe are some key functions of VR technologies.

5G NETWORK

Communication is the foundation of our teaching-learning process. It may not be carried out without communication, so communication speed is a major factor in the frequency of teaching and learning. The evolution of the five-generation network increased the efficiency and proficiency of education 4.0. It enables other disruptive innovations such as segmented reality, virtual reality, the internet of things, cloud computing, and the robot of education 4.0. The five-generation network contributes to inclusive education. It boosts the effectiveness of distance, remote, blended, digital, and intelligent immersive learning. It makes learning more flexible and assists students with special needs.

DIGITAL GAMES

Gamification is a 21st-century teaching method reflected in Education 4.0. In this digital age, digital games are the medium of entrainment. It improves the effectiveness and student-centeredness of the teaching-learning process, motivates students, provides practical experiences, improves decision-making and problem-solving skills, as well as critical thinking, cognitive, spatial, and motor capacities among students, promotes positive competitiveness, develops knowledge acquisition capacities, improves student self-efficiency, prepares cooperative and collaborative learning environments, improves ICT skills, fosters student self-reliance, autonomy, and development (Zainon et al., 2013; Felicia, 2009). One of the best examples applied in teaching and training is the use of Kahoot for gamification of any educational content.

CONCLUSION

Education 4.0 is a disruptive era of innovation and technology. It is an era of automation and cyber-physical systems. It changed the landscape of global education and convinced the teaching fraternity to rethink our aims, objectives, method of teaching, curriculum, the role of teachers, the role of students, discipline, and the medium of instruction. There are many breakthrough innovations invented in education 4.0 and they will keep on adding. It makes the teaching-learning process effective, innovative, and productive, as well as fulfilling the need and expectations of the 21st century. In nutshell, teaching and learning through these innovations are boons for both teachers and students in terms of efficient pursuit of education.

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A STUDY ON THE IMPACT OF EXPERIENTIAL LEARNING: A TEACHING – LEARNING PEDAGOGY WITH RESPECT TO NEP 2020

¹ Glancy Joseph Alphonso, ² Sayali Harishchandra Kulaye and
³ Sarthak Rajesh Jadhav

^{1, 2} Students, SYBAF, Satish Pradhan Dnyanasadhana College,
Thane City, 400601

Email: Glancyalphonso@gmail.com; Sayalikulaye1814@gmail.com

³ Student, FYBAF, Satish Pradhan Dnyanasadhana College,
Thane City, 400601

Email: sarthakrj007@gmail.com

ABSTRACT

*Experiential Learning (EL) is an experience that we get, by communicating and through interaction with other people. From the title above, we can understand that this research paper focuses on **teaching–learning pedagogy** which is indeed Experiential Learning and in what ways, it can be used by us while learning something new. The need of EL is not only for academic purposes but also to develop connection with the real world. We, as an Accounting & Finance students had conducted certain activities like movie reviewing, reel making from which we got a hands-on experience and a lot to learn. Knowledge that we received from learning is about **the involvement** of different Investment Avenues in Commerce. We prepared questionnaires, flashcards, collected feedback and also face to face communication by interviewing some group of individuals about the financial market phenomena regarding their before and after effects.*

*The main aim of our research is to earn credit points in ABC & also create awareness of the benefits that we can get in our academic's with respect to **New Education Policy** where the concept of **Academic Bank of Credit** is now emerging in the market.*

Keywords: *Experiential Learning, Involvement, Academic Bank of Credit.*

INTRODUCTION

Experiential Learning is a type of process in which by experiencing new things, we reflect on the previous knowledge and try to think in order to increase that knowledge with more ideas by acting on it resulting in completion of the given task. We can relate Experiential Learning with Kolb's classic model.

According to New Education Policy 2020, where concept of Academic Bank of Credit coming up students who have registered in for ABC ID are getting credit points by considering their academic background but

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the students who like to learn practical more than theoretical should get the benefit of it whenever Experiential Learning will earn importance in NEP. This will not only help in practical method but also while teaching a theory subject, it can help us by personally experiencing a particular topic and may also create a better understanding of it. There is a great scope & opportunities if we use Experiential Learning in our day to day life.

A study which was published in PLOS Biology on 20000 students said that concept grasping power increased by 47% due to this type of learning.

REVIEW OF LITERATURE

1) James W. Gentry (Guide to Business Gaming and Experiential Learning, 1990)

In his research paper he focused on learning the student's perspective as well as structuring on teacher perspective to a large extent. What a student takes away from an experience which is outside the control of the instructor. He also spoke about pedagogical approach.

2) David S. Rapaport (August, 2013)

His project has presented research and examples of alternative educational models which lead to more effective learning experience for students K-12 to ensure the maximum learning potential of every student. It also focused on maximizing intellectual capabilities.

3) David A Kolb (Professor)

In his research he spoke about the Conversation as Experiential Learning where he considered human interaction, enhancing learning potential as a strongest interest of authors as well as of many scholars and practitioners. He promoted learning on the basis of social, interactive level.

4) McGill University (Best Practices in Experiential Learning)

In this article, the practices which can be used for experiential learning are given in detail. The designing of experiential activities, designing of classroom and external activities and also a part of teaching reflection is given.

5) Jay Caulfield and Treesa Woods (Exploring its long term impact on socially responsible behavior)

In this journal, they talked about cross cultural understanding and recognized that education is far more than learning facts. His findings indicated that 94.7% of participants reported a great impact on learning experiences. It is based on longitudinal research and social responsibility.

RESEARCH QUESTION

1. Is experiential learning engaging both slow learners & advanced learners?
2. Does EL experience make learners more confident about the subject & terminologies to understand?

STATEMENT OF PROBLEM

After reviewing four research papers & articles and one research project it is understood that researchers have not taken into consideration the subject of “Portfolio management & Investment analysis”. So, researchers has analyzed the investment avenues with help of EL technique such as:

- (I) Add-on-course of 30 hours.
- (II) Movie Reviewing.
- (III) Practical training on field experience.
- (IV) Making of flashcards and explaining same to other non-commerce students of other streams.
- (V) Reel Making
- (VI) Literacy Awareness Campaign to Street Vendors

OBJECTIVE OF THE RESEARCH

1. To focus on experiential process of learning & it impacts over traditional teaching learning process.
2. To prepare students for their future careers with all practical & theoretical skills
3. To suggest different ways that can be useful for students to learn in terms of academic bank of credit.

HYPOTHESIS

- H0 – There is no significant effect of Experiential Learning process on Traditional Learning process.
H1 – There is a significant effect of Experiential Learning process on Traditional Learning process.

HYPOTHESIS TESTING

H1 (Alternate Hypothesis) is accepted whereas **H0 (Null Hypothesis)** is rejected

RESEARCH METHODOLOGY

Research Universe	Thane Region
Sampling Method	Purposive Sampling
Sample Size	94 respondents
Method of Data Collection	Primary & Secondary Data
Method of Primary Data Collection	Pre – Structured Questionnaire
Method of Secondary Data Collection	Research Papers, Articles, Projects
Data Analysis Techniques	Pie Graph, Clustered Column Graph, Likert scale

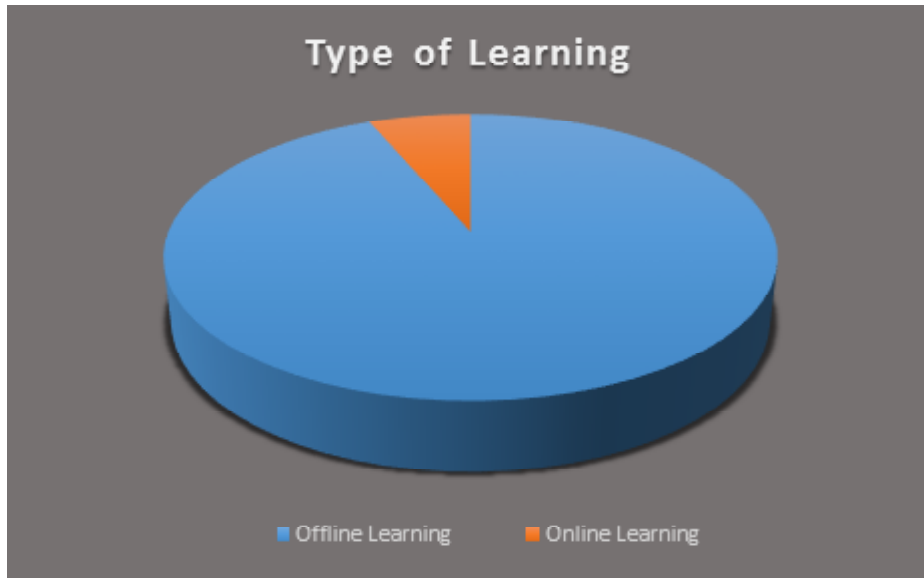
Questionnaire link

<https://forms.gle/iZW86MxWktboSZpK9>

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DATA ANALYSIS AND INTERPRETATION:

1. What type of learning do you enjoy?



Source: Primary Data

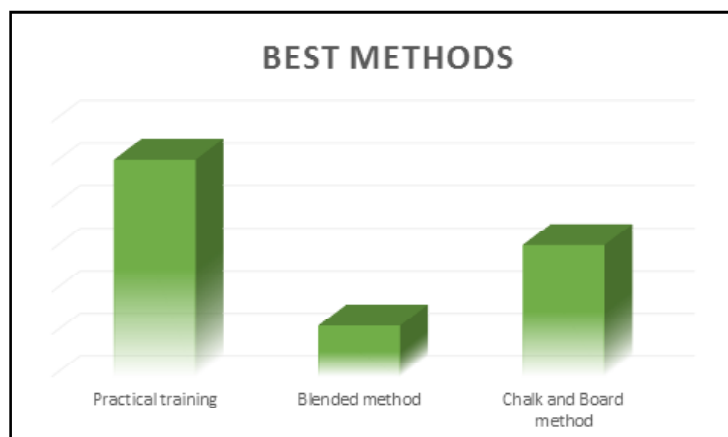
Data analysis:

More responses were concentrated in the favor of offline learning whereas 6% students would like online learning process.

Data interpretation:

We interpreted that students are fond of offline learning than online learning, as that gives them a better understanding of a particular topic.

One of the best methods of learning is...



Source: Primary Data

SPDC DNYANAKOSH

Data analysis:

Practical learning has highest responses among the remaining two methods whereas chalk & board method and blended method has 31% & 12% respectively.

Data interpretation:

We can interpret that students are more interested to learn practically and chalk and board method can also be useful as it will also help them to grasp the knowledge more effectively.

Questions on EL

	SA		A		N		D		SD	
	COUNT	%	COUNT	%	COUNT	%	COUNT	%	COUNT	%
[The knowledge gained from these sessions is highly relevant]	33	35%	29	31%	21	22%	0	0%	11	12%
[By applying EL you are better able to correlate the knowledge taught to you]	13	14%	41	44%	26	28%	7	7%	7	7%
[Case studies discussion helped you understand the scenario better]	26	28%	35	37%	20	21%	2	2%	11	12%
[The EL sessions inspired you to study the topic in detail]	22	23%	39	41%	20	21%	8	9%	5	5%
[The understanding of the concepts was much more better through EL]	26	28%	33	35%	20	21%	9	10%	6	6%
[The cycle of Experiencing, reflecting, thinking and acting has changed due to EL]	16	17%	41	44%	24	26%	7	7%	6	6%
[Due to EL learning you are now confident to solve the problems by yourself]	15	16%	46	49%	18	19%	7	7%	8	9%
[The EL sessions have inspired to organize and plan your approach towards understanding the scenario]	21	22%	39	41%	21	22%	7	7%	6	6%

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	SA	A	N	D	SD		SA	A	N	D
	COUNT	%	COUNT	%	COUNT		COUNT	%	COUNT	%
[The organization of sessions was done very well]	17	18%	41	44%	24	26%	6	6%	6	6%
[The learning material provided were very helpful]	27	29%	37	39%	18	19%	4	4%	8	9%
[The session increased your confidence and understanding of the topic]	21	22%	45	48%	16	17%	4	4%	8	9%

Source: Primary Data

Data analysis:

The Questions like knowledge gained from sessions and by applying EL; we can better correlate the knowledge, case studies, sessions inspired to study the topic, understanding of concepts, cycle of experiencing, reflecting, thinking and acting, confident to solve the problems, helped in organizing & planning approach, learning material provided, etc. gave us the responses of students agreeing for this type of learning.

Data interpretation:

We can interpret that many students would like to use these EL method while some would go for other methods like TL.

3. Questions on TL

	SA		A		N		D		SD	
	COUNT	%	COUNT	%	COUNT	%	COUNT	%	COUNT	%
[The knowledge gained from these sessions is highly relevant]	20	21%	41	44%	18	19%	6	6%	9	10%
[By applying EL you are better able to correlate the knowledge taught to you]	15	16%	42	45%	24	26%	8	9%	5	5%
[Case studies discussion helped you understand the scenario better]	29	31%	34	36%	19	20%	8	9%	4	4%

SPDC DNYANAKOSH

	SA	A	N	D	SD		SA	A	N	D
	COUNT	%	COUNT	%	COUNT		COUNT	%	COUNT	%
[The EL sessions inspired you to study the topic in detail]	19	20%	44	47%	18	19%	8	9%	5	5%
[The understanding of the concepts was much more better through EL]	18	19%	43	46%	20	21%	6	6%	7	7%
[The cycle of Experiencing, reflecting, thinking and acting has changed due to EL]	15	16%	43	46%	20	21%	11	12%	5	5%
[Due to EL learning you are now confident to solve the problems by yourself]	15	16%	47	50%	20	21%	6	6%	6	6%
[The EL sessions have inspired to organize and plan your approach towards understanding the scenario]	13	14%	50	53%	16	17%	10	11%	5	5%
[The organization of sessions was done very well]	17	18%	41	44%	22	23%	4	4%	10	11%
[The learning material provided were very helpful]	20	21%	39	41%	17	18%	12	13%	6	6%

Source: Primary Data

Data analysis:

The Questions like knowledge received from sessions and by applying EL; we can better correlate the knowledge, case studies, sessions inspired to study the topic, understanding of concepts, cycle of experiencing, reflecting, thinking and acting, confident to solve the problems, helped in organizing & planning approach, learning material provided, etc. gave us the responses of students agreeing for this type of learning.

Data interpretation:

We can interpret that many students would like to use these TL method if EL has the impact on it.

FINDINGS

From Overall Analysis, we can see that EL can also be one of the effective way of learning as it will give

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us better understanding of the topic through practically carrying out field visit and experiencing by reflecting on it.

LIMITATIONS

- The research is limited to only Accounting & Finance subjects.
- The sample size is limited due to limited time.

SCOPE FOR FURTHER RESEARCH

- It provides opportunities to apply data and ideas in a real-world situation, which will help them to develop new skills in experiential learning.
- Students can absorb experiences with new concepts and analyze how they performed in the situation and this will aid them to grow their problem-solving ability and also teach them how to adapt to the circumstances and so new ways can be developed for it.

CONCLUSION

From the Overall research work, we as a student who will use Experiential Learning as a teaching learning pedagogy should earn maximum credit points as Experiential learning is really giving us hands-on experience and making us confident to learn the subject theoretically as well as practically and also with study tools and field visits, by creating we are building a strong nation by doing Experiential Learning activities with respect to Financial literacy Awareness and Digital Literacy Awareness.

RECOMMENDATIONS

According to New Education Policy 2020, Academic bank of credit which is a virtual storehouse that contains the credit earned by the students throughout their learning journey is coming up and so we recommend that Experiential learning method should be adopted by giving credits to the student who are using these techniques.

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STRENGTHENING ONLINE COUNSELLING IN THE ERA OF THE FOURTH INDUSTRIAL REVOLUTION

Gabriel Amponsah Adu and Reagan Adjei Sarpong

Department of Education,
MS University of Baroda, India

Email: aduamponsahgabriel3@gmail.com; sarponggray@gmail.com

ABSTRACT

This paper seeks to draw the educational institutions and the International counsellors' association's attention to the changes and benefits that the Fourth Industrial Revolution have brought to the counselling profession. The Fourth Industrial Revolution (4IR) is the fusion of digital, biological, and physical worlds. It is transforming institutions through new technologies such as cloud computing, artificial intelligence, the internet, robotics, 3D printing, and advanced wireless technologies.

Counselling is a mature relationship in which a professionally trained counsellor meets with clients to help them solve problems that have to do with their mental, personal, social, educational, and development. It is performed in two ways, thus, face-to-face and online. Online counselling is a more modern-day approach in which counselling is done via the internet. Online counselling is one of the technological ways of delivering counselling to clients through technologies such as desktop computers, laptops, tablets, smartphones, etc. This counselling path uses platforms such as Google Hangouts, Microsoft Teams, FaceTime, WhatsApp, Skype and zoom. The paper covers the Fourth Industrial Revolution (4IR), online counselling, the benefits of online counselling and the limitations of online counselling. The paper further highlighted the suggestions for strengthening online counselling in the Fourth Industrial Revolution era.

Keywords: *Fourth Industrial Revolution, Counselling and Online Counselling.*

INTRODUCTION

Every day, the World changes in response to the changing technology trend. The old ways of doing things may not be compatible with how things are done today due to the advent of new technology. The use of technologies to conduct work previously done by humans has exponentially advanced in the Fourth Industrial Revolution (4IR). The 4IR is characterised by fundamental changes in society's more efficient and beneficial life. These changes result from the invasion of digital technology through the acquisition and use of technology and science to promote the quality of life (Taher, 2021). Despite the positives, it poses many challenges to institutions and society. Technology and artificial intelligence convergence has begun to transform and disrupt

the workforce (Lund, 2021). The problems can be seen in the need to retrain employees participating in the new force. Retraining is an act of learning new skills to be able to do a different job or reskilling people to do another job (Kaplan, 2019).

Technological evolution will require people at all levels to continue developing their skills more rapidly than in the past (Kaplan, 2019). Institutions will need to provide customised training to ensure employees' success in human skills. They must train employees on-site as well as send them to training. Training flexibility will be critical to ensure that employees and businesses are prepared for an effective transition (Nwaohiri & Nwosu, 2021; Morrow, 2021).

Counselling professions face a considerable challenge: guidance and counselling can adapt to technological advances and leaps in communication technology and information. Therefore, to fit into the 4IR, employees, like counsellors, need to adjust to the latest technological trend. They must update their knowledge and skills, change their mindset, and update service strategies in providing guidance and counselling.

Individuals face various challenges throughout their lives and require assistance from others to overcome them. A professional Counsellor is a person who assists them in times of their problems through counselling. Counselling is a mature relationship in which a professionally trained counsellor meets with a client to help them with mental, personal, social, educational, and career functioning to solve a problem for their development (Adu, 2022). It is a fundamental profession that has significantly impacted and evolved in various ways in the twenty-first century. Counselling is one of the mental health-aiding professions (Zeren, 2015). According to Egan (2011), the primary goals of counselling are; to help people manage their problems in life more effectively, to develop unused or underutilised opportunities more fully, and to contribute to them becoming better at helping themselves in their everyday lives. Counselling has become a handy field because it has improved people's lives (clients) (Amos et al., 2020). It has helped people understand themselves, maintain positive interpersonal relationships, and develop effective communication and interpersonal skills (Hays & Erford, 2018). Counselling is provided in two ways: face-to-face/ in-person and online/ e-counselling (Ierardi et al., 2022).

With the advent of online counselling and multiculturalism in the twenty-first century, technology and globalisation have impacted the profession (Sue et al., 2019). Counselling has expanded to include but is not limited to stress management, sports and leisure, academic counselling, career counselling, and community mental health. Globalisation and technology underpin all of this. It is because the World has become a prominent place with interconnected issues, and technology is frequently used to speed up operations so that many problems can be solved in a shorter time. Information and Communications Technology (ICT) is changing people's lives in unprecedented ways. Counselling is no exception to how ICT transforms public service delivery and democratises innovation.

ICT has grown in power to the point where online-health interventions have proven effective in treating health problems; approximately four out of every five internet users report seeking online counselling on health-related issues (Hennemann et al., 2017). Although online counselling is becoming more popular, professionals have expressed concerns about the ethical and legal standards of care delivery (Remley & Herlihy, 2020), and

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those who are opposed to technology have questioned how practical this approach is when compared to face-to-face counselling (Kolog, 2014). Other experts are also hesitant to use it due to a lack of ICT knowledge and apprehension about change. The research community and the counselling profession in developed countries like the United Kingdom, the United States, and Canada have consistently asserted that, while exclusive (using electronic means), online counselling is just as effective as face-to-face counselling (Nagel & Anthony, 2011). All of this is accomplished over a long distance.

THE FOURTH INDUSTRIAL REVOLUTION (4IR)

The Fourth Industrial Revolution (4IR) is the fusion of digital, biological, and physical worlds. Cloud computing, artificial intelligence, the internet, robotics, 3D printing, and advanced wireless technologies, among others, are notable examples of the 4IR (Njuguna & Landry, 2020). These new technologies have the potential to make public services more accessible.

The Fourth Industrial Revolution has altered how products are imagined, manufactured, distributed, acquired, and consumed. It has an impact on how businesses operate and what customers, employees, and society as a whole expect of them (Kaplan, 2019). These disruptions are having a significant impact on jobs. The power of the 4IR can be leveraged in online counselling to provide the best experience for clients.

4IR is dramatically altering global labour and production systems, necessitating those job seekers to develop the skills and capabilities required for rapidly adapting to the needs of international firms and, more broadly, automation (Njuguna & Landry, 2020). Institutions cannot continue to do things in the same old ways; hence they are required to upskill employees critically, analytically and creatively. Similarly, counsellors need to be developed to be critical, analytical, creative, and problem solvers in this era of 4IR.

ONLINE COUNSELLING

Online counselling is a more modern-day approach in which counselling is done over the Internet. Online counselling is one of the technological ways of delivering counselling to clients who use a desktop computer, laptop, tablet or smartphone (Morrow, 2021). It is compatible with applications such as Google Hangouts, Microsoft Teams, FaceTime, WhatsApp, Skype, Zoom and Webex.

In terms of technological conveniences, online counselling is primarily performed in two ways (Bozkurt, 2013): one is the use of video-conferencing for communication between a counsellor and client; this type of contact is similar to face-to-face contact. The other is a written communication (chat) between the counsellor and the client that is devoid of image and sound. These programmes have one thing in common: Counsellor and client can see each other while speaking in real-time. Long-distance appointments can be quickly scheduled this way; even social distancing can be observed. This technology can provide life coaching, counselling, psychotherapy and satisfaction to our clients in comfort and privacy in their homes (Zeren, 2015).

During an online counselling session, the counsellor works with the client to assess the client's problems and assist in overcoming them. Online counselling has the same content and structure as in-person counselling/

face-to-face counselling. Appointments are scheduled similarly, with regular meetings lasting the same amount of time. It would maintain the same levels of privacy and confidentiality as we would if we met face-to-face. The client will be meeting in a private, secure room. Online video and chat services use encryption, a sophisticated form of internet security that ensures the security of your conversation.

Others have expressed concern about the relatively impersonal setting, which may prevent a strong counsellor/client relationship from forming. Scientific research has demonstrated that online treatment is an effective tool for dealing with mental health and well-being issues and assisting others in addressing many problems, such as anxiety and depression, career concerns, and relationship problems (Morrow, 2021).

Online counselling is convenient and accessible (Bennett, 2019). Clients must not travel to the counsellor's office to receive treatment. This option may benefit people who live in remote areas or have physical limitations. Mobile technology is now being used to improve counselling data and service delivery (Njuguna & Landry, 2020). During the rules of COVID-19, online counselling offered long-distance support and greater scheduling flexibility. Online counselling may foster intimacy in ways that face-to-face counselling cannot by providing new methods of forming counselling relationships with different clients (Weinberg & Rolnick, 2020). For example, it can be helpful for people who are uncomfortable opening up during face-to-face sessions. Weinberg & Rolnick (2020) emphasised that during video conferences, counsellors can see facial and emotional responses much more clearly, which is another unique feature of online counselling. Messaging services expand communication opportunities between the counsellor and the client.

BENEFITS OF ONLINE COUNSELLING

Regarding some limitations of online counselling, this paper, "Strengthening Online Counselling in the era of Fourth Industrial Revolution", remains with the following benefits of using online counselling rather than face-to-face service.

Affordability and Convenience:

In an educational environment, appointments may have more flexibility and options. Because it is at a time and place convenient for the client (students), the client may be able to focus more fully on the counselling process. Online counselling is usually reasonably priced and suitable. Because you will be attending counselling sessions online from home or in a hostel, you can often schedule them at times that are convenient for you. Counsellors who only treat clients (students) online will likely have lower overhead costs, such as renting office space. As a result, online counselling can frequently provide affordable treatment to students and other clients.

Accessibility:

Provides greater access to services from rural and remote locations and those who cannot leave their homes, hostels or workplaces or travel to an office. It is also very convenient for people who travel a lot because it can be accessed from anywhere. Individuals who are disabled or housebound can access online counselling. Regarding accessing mental health care, mobility can be a significant issue. For example, a counsellor working from home may not be equipped to work with clients of all abilities. People who cannot leave their homes, workplaces and hostels for different reasons, such as physical or mental illness, time to go for lectures and

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others, can find online counselling an effective alternative to face-to-face counselling settings.

Time savings:

No need to take time off work/miss some study periods or travel anywhere. It can be done at your workplace, hostel or home. Driving long distances and taking significant time away from a busy schedule to seek face-to-face counselling can burden people needing assistance. If you have reliable internet access, online counselling provides you with relatively quick and easy access to treatment that you might not have had otherwise.

Cost-effectiveness:

It is frequently less expensive than face-to-face counselling. Furthermore, travel expenses, child-care expenses, and time away from work can all be avoided. People in rural or remote areas can get mental health treatment through online therapy. Those who live in rural areas may not have access to any other type of mental health treatment because their location has few or no mental health practices.

Anonymity:

The anonymity provided by online counselling, in which clients create a new online mail address that does not include their name and is not linked to anything that could identify them, may be beneficial. Online counselling has made mental health treatment more accessible. People may feel at ease discussing physical health problems with friends and family, but they may not feel the same way about discussing equally essential mental health issues. Online access makes it easier to clients' to overcome pain, reduce stigma, and boost their confidence when communicating with counsellors about their mental health issues in the past.

LIMITATIONS OF ONLINE COUNSELLING

In all situations, there are exceptions. Unfortunately, it is also applied to online counselling. Online counselling is not always the best way to deal with a crisis (Eboueya & Uden, 2011). For example, if you are having suicidal thoughts, online counselling is not a substitute for getting immediate help. Similarly, if you are currently experiencing or at risk of experiencing violence or abuse, there is a limit to the amount of support an online counsellor can provide.

SUGGESTIONS FOR STRENGTHENING ONLINE COUNSELLING

The expansion of online counselling in the curriculum:

The expansion of online counselling should be linked to training psychological counsellors who can provide this assistance. Online counselling courses must be added to the existing educational curriculum for guidance and counselling sections to assist counsellors with much experience to match the Fourth Industrial Revolution. In this regard, counsellors will receive the necessary knowledge and skills through education and training to make them more effective and efficient in online counselling sessions.

In-service training:

In terms of online counselling, it has become necessary for counsellors to improve themselves and keep up with the speed of global technological changes with time. According to Cann (2018), 54% of giant international Institutions and employees would require significant re- and up-skilling to capitalise on the Fourth Industrial

Revolution's growth opportunities fully. As a result, it is suggested that in-service counsellors receive in-service training to gain knowledge and skills for practising online counselling. The International Association of Applied Psychology (IAAP), International Counselling Psychologists Councils (ICP) and other Psychological Association should give way by organising training programmes on online counselling. It will motivate counsellors to pursue further training in online counselling to reduce the scarcity of online counselling practitioners in educational institutions, especially universities.

Introduce online counselling platforms:

To effectively implement online counselling, it is expected that Educational institutions work with counsellors and the Information Technology (IT) Department to introduce online counselling in the various educational institution's platforms to assist clients with issues. The institution's administration can employ graduates from counselling programmes to manage these sites, allowing counsellors to meet their clients online without interruption. When this is introduced, it will save time, and many clients (students) will be catered for at shorter periods without having to see the counsellor physically. It would also promote online group counselling, which will assist the counsellor in meeting a group of students with everyday needs and treating a wide range of students' problems like anger management, academics, anxiety and alcoholism. It will promote respect for other members, a sense of belonging, encouragement, behaviour change and an environment for learning.

CONCLUSION

Fourth Industrial Revolution made the fusion of digital, biological, and physical worlds possible. It is the upraise of new technologies such as cloud computing, artificial intelligence, the internet, robotics, 3D printing, and advanced wireless technologies, among others, to solve the World's problems. It is prudent all skilled labours, like counsellors, adjust to these changes.

Online counselling is one of the technological ways of delivering counselling to clients who use a desktop computer, laptop, tablet or smartphone on popular platforms, such as Google Hangouts, Microsoft Teams, FaceTime, WhatsApp, Skype, Zoom and Webex. Online counselling is performed in two ways: video-conferencing for communication between a counsellor and client, and the other is written communication (chat) between the counsellor and the client.

With the advent of online counselling in the twenty-first century, technology and globalisation have impacted the medium of counselling clients. Online counselling provides clients with as advanced satisfaction as face-to-face counselling. Online counselling is affordability and convenient, accessible, time-saving, cost-effective and anonymous as to face-to-face counselling to both counsellors and clients. As a result, it is suggested that:

- Online counselling is to be expanded into the curriculum to link to training psychological counsellors who can assist the client (Students).
- Educational In-service counsellors receive in-service training to gain knowledge and skills for practising online counselling in various educational institutions.
- Educational institutions should introduce online counselling platforms in their workplaces to assist clients (Students) find solutions to their problems.

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SPDC Dnyanakosh



Thane off Eastern Express Highway, Dnyanasadhana Marg,
Thane - 400604 Maharashtra, India

www.dnyanasadhanacollege.org