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Digital Revolution brought in by COVID-19

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Abstract

This paper is a descriptive study on how Covid-19 pandemic has led to an inevitable surge in the use of digital technologies due to the social distancing norms and nationwide lockdowns. Using a systematic literature review of eight peer-reviewed articles, this paper provides an overview of the literature. We explore possible scenarios of the digital surge and the key problems that are faced by different sectors of the economy like education, healthcare and micro, small and medium enterprises. Also this paper studies dependence on the digital world to revive the economy. Furthermore, this paper studies the respondent's view on the effectiveness of digital measures adopted by various sectors. This research also studies the factors which create digital divide in the country and adds problems to the life of the people. This article indicates a direction to future research which can focus beyond the Indian economy.

Keywords:

Digital surge, COVID-19, MSME, e-Health, Education, Digital Literacy, E-commerce, Digital Divide.

Objectives:

- To identify the problems faced by the different sectors of the economy at the time of COVID and techniques used by them to overcome them
- To explore the need of dependence on digital revolution for economic revival.
- To track the level of satisfaction and easiness in the newly developed digital era versus the traditional era.

Introduction

Corona Virus Disease 2019 (COVID-19) was discovered in the city of Wuhan, China. As per the data, the country of India has recorded 6.23 Million COVID-19 cases as of September. The first case recorded in the country was in the early weeks of February. Later on as the number of cases increased the government of India announced a nationwide lockdown starting from 25th March 2020, as a preventive measure to limit the surge in the cases and to restrict social gathering of the people.

The virus directly affected the level of trade, investments and employment all over the country and led to an economic slowdown. The outbreak led to a global health emergency.

This slowdown badly affected many sectors of the economy including tourism, education, healthcare, small and medium enterprises and so on. The infrastructure of the country was not well developed that each player in the economic sector could survive the pandemic.

A huge population of the country lives in rural parts and do not have the access to basic amenities such as shelter, food and water; maintaining social distancing and being able to keep their surroundings clean and sanitized acted as a big challenge for them to keep themselves safe from the virus. Moreover one can consume these amenities in exchange of money but the lockdown prevailing in the country did not let the people to go to their work and carry out their operations. Since the lockdown was announced the industries weren't manufacturing goods and providing their services on a large scale thus the companies chose the path of firing the people in order to reduce their expenses. This increased the level of unemployment in the country and the exchange of such amenities became a bigger challenge for many people in the rural parts.

Moreover the country witnessed an overall technological shift as people preferred to conduct their affairs through online modes in order to abide by the social distancing norms set by the government of India. This shift to the online platform and development of a proper system of conducting the business and other activities witnessed numerous problems and obstacles.

This research paper talks about the various problems faced by the different sectors of the economy of India during the technological shift brought in by COVID-19. It gives a clear picture on how the sectors overcome their problems in order to continue their activities and measure the level of effectiveness.

Literature Review:

The researcher focuses on the impact of the COVID-19 on the digital transformation in the educational sector. The research is carried out in South Africa (Mhlanga D., 2020). The study shows how the pandemic had forced the schools and other universities to shut down in the countries causing a total halt in the learning process. The main area of concern was not only the stoppage in the learning process but also the loss of the human resource capital. Therefore the governments have brought in the ways in order to promote remote learning. In the

article the researchers investigate the influence of the COVID- 19 in increasing the use of the fourth industrial revolution (4IR) tools as a platform for providing education to the children. The research is carried out by using the secondary data(articles, recently published journals, newspaper) in order

to understand the influence of COVID on the educational sector.

The outbreak of COVID-19 has totally changed the way of education in South Africa, as it will be difficult for them to go back to the old ways of teaching as the issue of social distancing will be mandatory in order to prevent the spread of the virus. (Moloi, 2020)

The study shows that the schools and universities used both offline and online means of connectivity for connecting with the students and have a good virtual learning. For offline tools of connectivity television and radios are used and for online tools of connectivity the laptops, mobile phones and desktops are used. Many applications and social media sites are being combined in order to have a good online connectivity of the virtual classroom.

The observations of the researchers were that the different 4IR tools for different sections of the students(primary, secondary and tertiary)

The pandemic of Covid-19 has brought in a number of changes in the working of the businesses around the world. The implementation of social distancing makes the people limit their activities outside their home and as a result the sales turnover decreases. It has directly impacted the economy in terms of trade, investments and tourism.

The researcher believes that the SME's are highly vulnerable to losses due to such pandemics as compared to other businesses because they are highly dependent upon the velocity of the money they get from the sales. The research lays down emphasis on the point that lockdown and physical distancing limits the level of travel and consumption affecting the restaurants, markets, shopping centres, and so on. Therefore it studies that the online markets which uses the technology to keep the operations running are the real businesses which will sustain in such times. The researcher states that the crisis due to the Covid- 19 has become the right moment for the small and medium enterprises to improve the quality of their products or services and develop various strategies to offer goods and services based on their businesses. SME's could make use of digital marketing in order to promote their businesses and have a digital transformation.

The researcher has laid an emphasis on the ways by which the small and medium enterprises can survive the COVID-19 outbreak. (Fika, 2020) The pandemic has caused disturbance in the normalcy of ways to do work. COVID-19 completely changed the way people used to carry out business operations; due to the lockdown the small and medium enterprises were highly affected. In order to survive the pandemic the businesses are to adopt new ways of carrying out their operations. The research tells about the business model that the small and medium enterprises can adopt in order to sustain themselves in the market. The research uses a qualitative method. The researcher takes the study from various sources like electronic media, books, research results assessed by the various electronic journals and printed media. Business resilience is supported by digital transformation.

Digital transformation refers to the new skills that have emerged and digital tools are adopted by the enterprises. The businesses need to assess the right digitalization strategy in order to achieve their business goals and be able to develop SME products or services. By recognising the right strategy The

right digital strategy can help in improving the competitiveness of the product or service in the market and thus resulting in growth. By using the appropriate technology a business can carry out its digital transformation.

The researcher conducted this study to analyse how COVID-19 brought a digital revolution across the world, especially in the field of academia and higher education. Digital boom is not only seen in the teaching line but also in online final exams and online entrance exams. The evolution of Universities can be seen in 3 generations: medieval, humboldt-type and entrepreneurial universities (Wissema 2009). But now it appears there is a 4th generation which is named as 'online and digital universities. Digital revolution brought in by COVID- 19 helped understand the attributes of higher education such as online exams as well as online academic jobs are as good as in 'real life'. On the 18th and 20th of March 2020, Imperial College London conducted the world's first online exams for its 280 six-year medical students (Tapper et al., 2020). In Japan, despite the fact that spring graduation ceremonies were cancelled because of the coronavirus pandemic, the students at the Business Breakthrough University in Tokyo attended remotely by controlling avatar robots from their homes (Reuters, 2020). In general, there are three main types of people in today's academia and higher education: Lecturers, Researchers, Businessmen and all of them have a important place in 4th generation (Blaginin et al. 2020).Usually online tuitions were seen as 'incomplete' but COVID-19 has changed the perception now. Owing to the coronavirus epidemic, the various conflicting regulatory regulations have now promptly implemented developments in academia and higher education that normally would have taken a few years. So this research clearly satisfies the claim that this pandemic has clearly boomed the digitalization in the education sector.

In the research conducted Rahul De, Neena Pandey and Abhipsa Pal on digital revolution brought by COVID-19 the talk about its impact and various implications affecting the various sectors. The researcher firstly studies about how COVID-19 has affected our lives, secondly the researcher tells about Scenarios and Research Issues of the Digital Surge. There is definitely increase of digitalization. With employees becoming acclimatized with the idea of work-from-home (WFH), meeting and transacting online, firms will shift to WFH as a norm rather than as an exception. This is being adopted by many firms (Akala, 2020; BBC News, 2020; Khetarpal, 2020).The researcher also mentions about the increase of digitalization in education sector. The research also talks about gig economy. The gig economy is driven by online platforms that hire workers on an ad hoc, shortcontract, and mostly informal basis (Rahul De, Neena Pandey and Abhipsa Pal, 2020). During the lockdown, workers employed by these platforms have suffered heavily, as the demand for their services, taxi rides, rentals, or skill work, has disappeared (Bhattacharya, 2020). The researcher has also mentioned about increase of online frauds due to digitalization. The pandemic has created a scenario of insecurity that is inviting fraudsters to exploit the crisis situation by extracting money or information or by creating vulnerabilities (Agarwal, Sengupta, Kulshrestha, Anand, & Guha, 2017). To conclude research definitely helps to understand the topic better because it covers various sectors and it also talks about

every sector in depth and what are the implications of this digitalization. The weak point of the research is that it does not give emphasis on the impact of digitalization on the healthcare sector because healthcare sector has also been completely digitalized after COVID-19 with apps like Aarogya Setu and various other websites.

In this COVID -19 pandemic, electronic health (e-health) provides people with an app that provides them with the latest trustworthy information and education**.** The aim of the observational research was to assess people's use of an app to support them with COVID-19 education, self-assessment, and monitoring of their own health for a 7-day period by using a symptom diary (Thomas Timmers, Loes Janssen, Joep Stohr, J L Murk, M A H Berrevoets JMIR Mhealth Uhealth, 2020). The app is called **'ETZ Treatment Guide'.** In close collaboration with other Dutch hospitals, the COVID-19 pathway was developed and added to the app (Thomas Timmers, Loes Janssen, Joep Stohr, J L Murk, M A H Berrevoets JMIR Mhealth Uhealth, 2020). Once users choose the COVID-19 pathway in the app, they were informed about the fact that the hospital could use their data on an anonymous basis for research purposes. The only requirement of the app was that you need have a IOS or Android device and be fluent in Dutch as this app is only available in Dutch language. In total, 5154 people responded to the question about severe symptoms, from which 242 (4.7%) indicated that they suffered from severe symptoms (Thomas Timmers, Loes Janssen, Joep Stohr, J L Murk, M A H Berrevoets JMIR Mhealth Uhealth, 2020). Data collected with the app were successfully applied to an interactive map, displaying postal code–specific demographics, health status, and health care consumption.The results of the study demonstrate the effect and use of an app to provide users with COVID-19 education and functionalities for self- management and symptom management through a 7-day diary. This research provided insight towards our research as it provided the evidence that how digital revolution has helped the healthcare sector with all these apps that monitor the health of the people and give essential data about COVID-19 patients. It surely supports our argument of research that telemedicine and virtual healthcare platforms like these are need of the hour in this pandemic. Although the research provides very deep insight of the working and the implications of the app but scope of the study is very narrow as it only focuses on one app and the sample size is very small as COVID-19 is a global pandemic. Also for further research they can try to make the app more personalized.

COVID-19 has challenged the working of businesses at a very large scale and corporate is trying to cope up with these challenging times. But on the other hand E-commerce has a different response to it. The aim of researcher was to see the impact of COVID-19 on E- commerce. The research tells that with many traditional businesses are being shutdown the E- commerce provided people with all the daily supplies in the time where everyone is following social distancing. Segments such as on-demand delivery services related to fresh produce, online education, and social engagement platforms from gaming to OTT platforms, online collaborative tools, e-pharmacies, online consultations are a few areas that may have found their turning point to a highway (Pahwa, 2020). In this pandemic with E-commerce businesses have doubled the digital initiatives like doing online campaigns, advertisement etc. Digital aspect of E-commerce is adding a lot of advantage to the business because

customer can access the store regardless of their geographical location, efficient ways to distribute products to consumers in limited-contact way and easily discoverable online presence that seamlessly help the need of the consumers. Some of the key advantage that E- commerce businesses had over the traditional businesses being a digital platform is: constant supplies of essentials, healthcare facilities, online education and also the transformation of the entertainment industry to the 'OTT' platforms. Also the restaurants and travelling & hospitality business that were involved in E-commerce had a competitive edge over the traditional business because there operations never stopped completely, although there was a decline in their operations but these E-commerce and digital revolution brought by COVID- 19 helped people and businesses. Also further research can be based on the basis that e-commerce also provided daily food items to people like Amazon Pantry and all other E- commerce websites. So this research agrees with the establishment that there has been tremendous digital revolution brought in by COVID-19.

Although digital revolution has been a real saviour in various sectors like e-commerce, education as well as healthcare sector but this has also created a digital divide which means gap between the underprivileged members of society who do not have access to computers of the Internet, and the wealthy middle-class who have access. Researches shows the major factors that create digital divide are income, education and race. In income, the article mentioned that those with more than US$75,000 are more likely to have Internet access (Quito, 2020). In India students who are from well to do families and who live in areas which have good internet networks are enjoying online learning while the other set of students are struggling with these virtual mode of learning. In the western part of New York, there are nearly 40,000 children who do not have a computer or high-speed Internet (J. Rey, 2020). Also the research shows that teachers also need to training of these online platforms to conduct their lectures and those who are not capable of learning this online mode of teaching or do not have access to good internet connection struggle with this online learning system. Digital divide is not only seen in education sector but also in the healthcare sector where the marginalized groups do not have access to virtual healthcare facilities provided by government and private hospitals like video call with doctor or various healthcare apps like Aarogya Setu. The research also provides us with various solutions to reduce this digital divide like the idea of module learning, the use of mobile technology, and the use of T.V. and radios as a source of knowledge and learning. This research lacks about the digital divide created by e-commerce apps like travel and hospitality apps which makes easy travelling for the people who access to the internet and technology as compared those who do not have. So this research clearly states that although digital revolution helped us in the pandemic but it did not have any advantage for the marginalized groups who do not have access to technology the most common example being of the migrant workers.

Hypothesis Statement:

H_{0a}: People were able to cope up with digitalisation in various sectors during COVID-19

H_{1a}: People were not able to cope up with digitalisation in various sectors during COVID-19 H_{0b}:

Digital revolution is an aid for economic revival during COVID-19

H_{1b}: Digital revolution is not an aid for economic revival COVID- 19

H_{0c}: Digital revolution was effective in various sectors of the economy during COVID-19. H_{1c}: Digital revolution was not effective in various sectors of the economy during COVID

Methodology

Type of Research

This study is a Descriptive research because the study clearly defines the population and the sample of the study and address the various characteristics of the study that how digital revolution brought in by Covid-19 has impacted various sectors and how people were able to cope up with these digital changes and analyse the data with proper tests and interpreted the results for analysing all the characteristics of the study. And adding to that this study analyses multiple variables and finds the mutual impact on the respective variables.

Population size

The population of the study was all the adults in India between the age of 18 years to 50 years and also those who met the following criteria :

1. All the adults were able to read and write in English
2. All the adults had access to the technology and Internet
3. All the adults were related to various sectors in which technology plays a vital role in this pandemic.
4. All the adults have experienced the traditional as well as the digital life brought in by covid-19.

Sample size

The population which was chosen was a huge data so we used inferential statistics to conduct our research and we formed a sample size which will be the representation of the whole population in our study. We sent the survey form in the form of questionnaires (link of which is attached in the paper) to various people belonging to various sectors and the resulting sample size was off 211 people. In our responses the maximum participation was from females of about 52.4% and the age group of 18 to 25 had a participation of 54.7% and most of the people for about 61.3% were from the urban society and 51.4 % belong to the education sector.

Sampling technique

The population of the study is all the adults in India between the age of 18 to 50 years but we used inferential statistics to form a representative sample for the whole population. The sampling technique used in this paper is simple random sampling which is a type of probability sampling method. This sampling was chosen because we wanted every member of the population to have an equal chance to be selected as a sample and we did not assign any particular numbers to the individuals or any special characteristic as all the population of a study was located in a wide geographical area.

Data Collection method

The data collected for this study from the selected sample was the primary data which means raw data was collected at source for the research purpose and the responses were kept confidential. The primary data collected was of two types: qualitative and quantitative data. Some of the questions required qualitative data and a judgmental and personal opinion on various questions asked and some of the questions work a quantitative data requirement which was also a purpose of research to quantify the impact of certain things on the sample and their preferences.

Statistical tools selected for analysis

Various statistical tools were used in the study to properly analyse the data and give write interpretation and conclusion from the data collected to specify the objectives of the study and also the primary reason for the usage of tools was to check the hypothesis formed and know whether the null or alternate hypothesis is correct.

Various tools which were used were percentage analysis, crosstabs and various other representation of data along with the chi-square test which was used to test our first hypothesis which was to find is there any significant association between the sector in which people are involved it and there ease of coping up with the digital changes, another tool which was used was correlation analysis which was conducted to find the relationship between the opinion of people that whether people who believe digitalization is the need of the hour to revive the economy also believe that E- Commerce can be the revival kit of the economy and the third statistical tool which was used was 'one sample t-test' to check the effectiveness of various virtual platforms which have been adopted by various sectors like education and health care.

Scales used in the study

The questions asked in the questionnaire for the study required quantitative as well as qualitative data along with the certain preferences of the respondents and so to collect the responses in a systematic order we use the following scales in our questionnaire to collect the data:

1. Guttman Scale: This scale was used to collect data from the questions which had the options like yes ,no or maybe and this helped us so collect qualitative data like were people able to cope up with the digital changes caused by the covid-19 pandemic.
2. Likert Scale: This scale was used to collect the ordinal data which can describe our study and test our hypothesis in a much descriptive way and in this scaling we used questions in which people on a scale of 1 to 5 needed to show their agreement it or their disagreement to the above asked statement.
3. Categorical Data : Along with the above-mentioned scale we also collected data in the form of various categories in which people needed to select the category to which they belong so that we can classify the people in various categories on the basis of objective of the question. We made categories like which sector did the people belong to and what is their annual family income which can be ranging from 1 lakh to 10 lakh and above.

Data collection instrument

An online survey form was circulated among the sample of a study of the and through which we collected 211 responses and on the basis of the received responses we analysed and interpreted the results and the link to that form is attached below. Also copy of the questionnaire is attached in the appendix. https://docs.google.com/forms/d/e/1FAIpQLSesa-FUuVTfRfccOX3NkmJVNbK37eaxMlAKmMjlMTOKDf- giA/viewform?usp=sf_link

Data Analysis

The data was analysed using Microsoft Excel and a computerized statistics program called SPSS. Ordinal and Nominal data was used for the data analysis. Ordinal data involves data that was ranked or ordered linearly but the differences between the rankings or values was subjective due to the nature of the questions and that multiple people answered the questions and the answers are based on their personal values (Triola, 1995). All appropriate descriptive statistics were run on the data, along with that Pearson Chi-square and One sample T test was used with a significance level of 0.05 to determine statistical significance and Spearman-rho to determine the correlation between digital revolution as the need of the hour and e- commerce as the revival of the economy. Below are the hypotheses that the study tested to find answers to the key questions.

H_0 A: There is no significant association between people of a particular sector and there is of coping up with the digital changes

H_1 A: There is significant association between people of a particular sector and there is of coping up with the digital changes

SECTOR * Cope Crosstabulation

			Cope			
			Yes	No	Maybe	Total
SECTOR	Education	Count	94	2	16	112
		Expected Count	90.2	6.9	14.9	112.0
	Health Care	Count	31	4	4	39
		Expected Count	31.4	2.4	5.2	39.0
	Micro Small and Medium Enterprises	Count	45	7	8	60
		Expected Count	48.3	3.7	8.0	60.0
Total		Count	170	13	28	211
		Expected Count	170.0	13.0	28.0	211.0

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	8.241	4	.083
Likelihood Ratio	8.834	4	.065
Linear-by-Linear Association	.464	1	.496
N of Valid Cases	211		

The above stated hypothesis was formed to check whether there is a significant association between the sector like education, healthcare and micro small and medium enterprise with the coping up ease with the digital changes which were brought in by covid-19 pandemic. To check whether there is an association between these two variables or not we conducted a chi square two tailed test with the confidence interval of 95% and significance level of 5%. To conduct this test we in our questionnaire asked people about which sector they are currently involved and another question we asked was whether they were able to cope up with their digital changes brought in by covid-19 pandemic. The data which was collected from these questions was a categorical data, and so to analyse the association between the two variables we conducted a chi square test. The chi square test of these two variables was done and we got a significant value more than 0.05 which means the above mentioned null hypothesis was correct and we accepted the null hypothesis and rejected the alternate hypothesis. The significant value we got was 0.083 which is more than 0.05 and thus we can conclude that there is no significant association between the people of a particular sector and their ease of coping up with the digital changes.

H_0 B: People who believe digitalization is the need of the hour to revive the economy also believe that E-Commerce can be e the revival kit for the economy

H_1 B: People who believe digitalization is the need of the hour to revive the economy do not believe that E-Commerce can be e the revival kit for the economy

Correlations

			Digitalization is the need of the hour to revive the economy	Ecommerce came in as a revival kit for the Indian economy
Spearman's rank correlation	Digitalization is the need of the hour to revive the economy	Correlation Coefficient	1	.484**
		Sig. (2-tailed)		0
		N	211	211
	Ecommerce came in as a revival kit for the Indian economy	Correlation Coefficient	.484**	1
		Sig. (2-tailed)	0	
		N	211	211

**. Correlation is significant at the 0.01 level (2-tailed).

As mentioned above in the methodology we sent our questionnaire to 211 people. In the questionnaire we asked people about two things that they believe the claim that digitalization is the need of the hour for the economic revival and how e-Commerce can be a revival kit for the Indian economy. The aim of a hypothesis was to check whether people who believe digitalization is the need of the hour for the economic revival also believe that e-commerce can be the revival kit for the Indian economy. The responses were collected on the basis of Likert scale and the data was ordinal data. So the data was analysed by spearman's rank correlation with the significance level 0.01. So keeping the correlation and significance in mind the results were formed that whether the people who believe digitalization is the need of the hour for the economic revival also believe that e- commerce can be the revival kit for the Indian correlation coefficient was 0.484 which means that there is weak to 'moderate positive' correlation between the two variables and on the basis of correlation coefficient we can conclude that people who believe digitalization is the need of the hour to revive the economy also believe that e commerce can be the revival kit for the economy and thus we can accept the null hypothesis for the study.

H_0 c: Digital revolution was effective in various sectors of the economy during COVID-19. **H_1 c:** Digital revolution was not effective in various sectors of the economy during COVID- 19.

One-Sample Test						
	Test Value = 3					
	t	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
How Effective and Convenient E-learning online classes have been	2.854	210	0.005	0.2133	0.066	0.361
How Effectively and Efficiently Virtual Health care platforms	2.843	210	0.005	0.2133	0.065	0.361

One-Sample Test						
Test Value = 3						
	t	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
How Effective and Convenient E-learning(online classes) have been	2.854	210	0.0516	0.2133	0.066	0.361
How Effectively and Efficiently Virtual Healthcare platforms have worked	2.843	210	0.0513	0.2133	0.065	0.361
How effective and efficient E-commerce platforms have been for people	12.804	210	0.0512	0.872	0.738	1.006

One of the objectives of the study was to find the effectiveness of the digital changes which have been adopted by various sectors during the covid-19 pandemic. In order to check the effectiveness of various digital measures in various sectors, the above stated hypothesis was formed and 'One sample t test' was conducted to check whether the digital changes adopted by various sectors were effective and efficient or not. A two-tailed test with 95% confidence interval was conducted. In the

questionnaire the respondents were asked to rate effectiveness and efficiency of the digital measures adopted by various sectors like education(online classes),healthcare(virtual healthcare platforms) and MSME(e-commerce). The data was collected by using Likert scale and data was in the form of ordinal data. The significance value was 0.0516, 0.0513 and 0.0512 for online classes, virtual healthcare platforms and e- commerce respectively. The mean of the responses (which were on the scale of 1 to 5) was

3.213 for online classes and virtual healthcare platforms and 3.872 for e-commerce with the standard deviation of 1.0854(online classes), 1.0898(virtual healthcare platforms) and 0.9893(e-commerce) respectively. As the significance value was 0.0516, 0.0513 and 0.0512 we accepted the null hypothesis which is that digital revolution in various sectors was 'effective'. Also this is backed up by the mean which is 3.213(for online classes and virtual healthcare platforms) and 3.872 for e-commerce which shows high effectiveness of various digital measures which have been adopted by various sectors.

Summary

The paper studies the coping up ability of the different sectors of the society during the digital revolution of the COVID- 19 era, and also its level of effectiveness in the following sectors. The sectors on which the focus of the study is laid upon are Education sector, Micro, Small and Medium scale industry, and health care sector. The study also takes into consideration the aid provided by the e-commerce for the economic revival in the Indian economy.

The study was conducted on the basis of the results derived from the survey conducted. The survey was conducted by circulating a questionnaire to the people aging between 18-50 years of age, were somehow affected by the digital revolution of the COVID-19 and were a citizen of India. A combination of Likert scale, Guttman scale was utilized in the formulation of the questionnaire in order to get the responses in a proper manner. The respondents of the survey summed up to 211. The majority of the respondents belong to the age group of 18-25 (54.7%), urban society(61.3%), and education sector (51.4%).

From the analysis it was observed that there is no significant association between the people of a particular sector and their ease of coping up with the digital changes as the observed significance value obtained is of 0.083 which is more than 0.05. To obtain this a 2 tail chi square test was conducted with confidence interval of 95% and significance level of 5%.

Another outcome that we got out of the research paper is that the people who believe that digitalization is the need of the hour to revive the economy also believe that e-commerce can be the revival kit for the economy. This was concluded by conducting a spearman's rank correlation where in the significance level was 0.01. The results obtained showcased that the people who believed that digitalization is the need of the hour for the economic revival also believed that e-commerce can be the revival kit for the Indian economy. This was obtained as the correlation coefficient was 0.484 which showcased a weak to moderately positive level of correlation between the two variables.

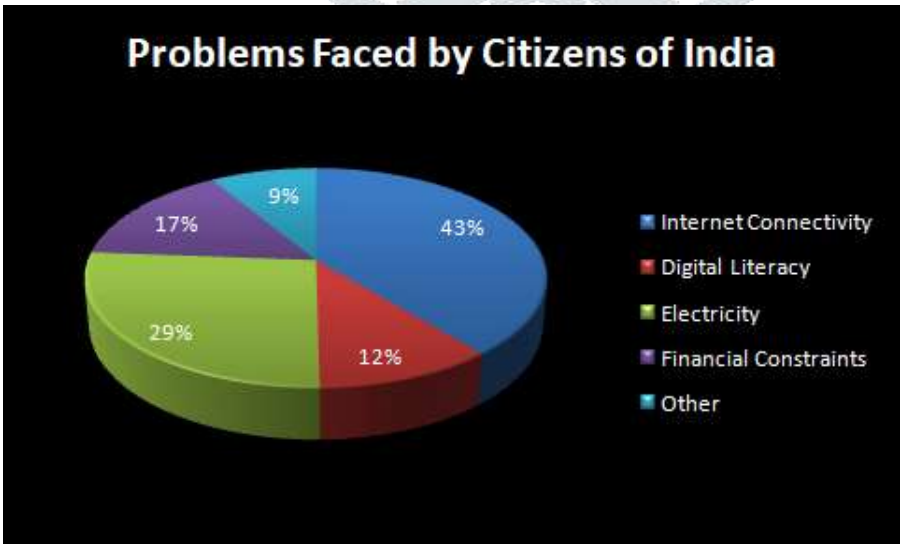
Since it was very essential to measure the level of effectiveness one sample t test was conducted. The test conducted had a 95% confidence interval. The data collected to measure the level of effectiveness was in the form of Likert scale(ordinal data). The significance value was 0.0516,0.513 and 0.512 for online classes, virtual healthcare platforms and e- commerce respectively. The mean of the responses (which were on the scale of 1 to 5) was

3.213 for online classes and virtual healthcare platforms and 3.872 for e-commerce with the standard deviation of 1.0854(online classes),1.0898(virtual healthcare platforms) and 0.9893(e-commerce) respectively.

Annual Family Income (In Rupees) * Were you able to cope up with the Digital changes during the Covid-19 Crosstabulation

		Were you able to cope up with the Digital changes during the Covid-19			
		Maybe	No	Yes	Total
Annual Family Income (In Rupees)	1,00,000 or below	3	8	25	36
	1,00,000 to 5,00,000	10	2	49	61
	10,00,000 or above	8	1	52	61
	5,00,000 to 10,00,000	7	2	44	53
Total		28	13	170	211

Another thing which was concluded from the data was that annual family income also plays a major role in ease of coping up with the digital changes brought in by covid-19. People with higher family income were able to easily cope up with the digital changes because they had resources as well as digital literacy which helped them to cope up with this drastic change. 44 people who had income level of Rs.500,000 to 1000000 were able to cope up easily with the digital changes whereas only 25 people who had the income level below 100,000 were able to cope up with the digital changes which clearly states that income also plays a major role in the coping up ability of the people.



Adding to this, one objective of the study was also to find various problems which were faced by the people when they were using technology andwere totally involved in the digital world due to the unforeseen circumstances and nationwide lockdown. According to the responses of the people most of

them face the problem of internet connectivity, digital literacy, lack of electricity , financial constraints and various other problems. Internet connectivity turned out to be the biggest problem which was faced by people during this pandemic; and 43% of people give internet connectivity as the prime problem during the usage of technology, and further lack of electricity falls just behind the internet connectivity problem and 29% of the people find lack of electricity is the major problem which is faced by them. Digital literacy and financial constraints are also one of the main problems which is faced by 12% and 17% people respectively.

Conclusion:

The study was conducted to see how everything got revolutionized in the life of people due to the digital changes brought in by Covid-19.The outbreak of COVID-19 has totally changed the way of education in the whole world, as it will be difficult for them to go back to the old ways of teaching as the issue of social distancing will be mandatory in order to prevent the spread of the virus. (Moloi, 2020). There were different problems which were faced by people during the pandemic related to the digital changes and also so there was a lack of satisfaction in the newly developed digital system as compared to the traditional system. The study also tells how e-commerce can act as a revival kit for the Indian economy in the pandemic. Digital aspect of E-commerce is adding a lot of advantages to the business because customers can access the store regardless of their geographical location, efficient ways to distribute products to consumers in limited-contact ways and easily discoverable online presence that seamlessly help the needs of the consumers (Pahwa, 2020). Among the sample size of 211 people which were the citizens of India between the age 18 to 50, 43% out of them had the problem of internet connectivity during this pandemic followed by no proper facility of electricity which was faced by 29% people. In the western part of New York, there are nearly 40,000 children who do not have a computer or high-speed Internet (J. Rey, 2020). Income is also a major factor which created a digital divide in India during this pandemic. People with the higher annual family income were able to cope up with the digital changes much more easily as compared to the people with low family income. Factors that create digital divide are income, education and race. In income, the article mentioned that those with more than US$75,000 are more likely to have Internet access (Quito, 2020). The study also found that is there any relation between the coping up easiness and ability of people with the particular sector they were a part of. The three major sectors identified were education, healthcare, and MSME. The chi-square test was conducted and it was observed that there is no significant association between the people of a particular sector and there is of coping up with the digital changes brought in by covid-19. Another thing which the study concluded is that people who believe digital revolution was the need of the hour for the Indian economy also believe that E-Commerce can be the revival kit for the economy in this pandemic; and this was proved by the correlation which showed a positive correlation between these two variables. Third aim of the study was to find the effectiveness of various digital measures adopted by various sectors to have a smooth run in this pandemic but effectiveness of these measures were somewhat different from individual to

individual. To measure the level of effectiveness 'one sample t test' was conducted with the confidence interval of 95% and the results were that people believe that these measures are effective in this pandemic and helped life go on even in this pandemic.

The results of the study confirm earlier work that showed many factors like income and geographical location play a major role in creating digital divide in the country(J. Rey, 2020).This study goes a step further and measures the effectiveness of the various digital measures adopted by various sectors and compares it to the traditional system and also this study talks about the falling economic numbers for the whole world and how digital surge can be the revival kit for the economy.

Limitations and Suggestions:

- Collecting responses through online mode stood as a challenge as people were not well equipped with knowledge and devices.
- The study focuses on only 3 sectors of a huge economy of India.
- Emphasis should be laid upon quantitative data for such researches.

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