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**Challenges in Industry Perspectives Post COVID 19 -  
Impact on Manufacturing,  
Services and Relevance of Technology**

**IWCI - 2021**

26-03-2021 to 28-03-2021

  
INSTITUTE OF MANAGEMENT IN KERALA  
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## MANAGEMENT INNOVATOR

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## *Editorial*

Worldwide Covid 19 has created tremors in their economy and the same is felt in India also. Internationally there were apprehensions about the impact of Covid 19 on the fields of manufacturing, services and that of technology. Keeping this in mind, IMK organized three days International webinar on the themes and Professors and practitioners across the World participated in the webinar and offered their enriching experience and also made the participants aware of the consequences. The highlight of the webinar was the session where the alumni of IMK contributed their thoughts.

As in the case of other webinars, research papers were sought on the themes from academicians, practitioners, research scholars and students. We had overwhelming response to the same but as the journal can have only selected, peer reviewed and plagiarism checked ones only. After the papers were received, the same was sent for peer review from our panel of experts and based on their comments, selected papers were included in the two editions of the journal- Management innovator which you are now reading. The impact of Covid 19 on various sectors were presented by the authors during the webinar and the same is now included in this edition.

I am sure you will find the articles worth reading and your feedback is important for the improvement of the journal. It can be mailed to [kscnair@keralauniversity.ac.in](mailto:kscnair@keralauniversity.ac.in).

Thanking you

Dr.K.S.Chandrasekar

Chief Editor



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Tuesday, April 13, 2021

## MESSAGE

*University of Kerala, one of the top universities in the country, has braced itself ready in academics and research even during COVID -19 pandemic. With an objective to create awareness on the impact of Covid and the ways and means to transform challenges into opportunities, all Departments were asked to organize relevant workshops and seminars on topics of contemporary relevance. Institute of Management in Kerala, one of the prestigious departments of the University, came forward to organize an International Webinar entitled, "Impact of COVID-19 on Manufacturing, services and the relevance of Technology" (IWC121) during the month of March 2021.*

*I am happy to know that the Department received excellent response in terms of key note speakers, number of Papers for publication and delegate participation. Senior faculty members from USA, Australia and India have participated in the Conference and provided their valuable inputs. One of the highlights of the Webinar was a session with the elite alumni of IMK. I am sure that all Departments will work closely with their alumni who can actually support and help the Department in strengthening their academic, curricular and co-curricular activities. The Papers received were subjected to peer-review, plagiarism check and steps were taken for ensuring the highest quality in terms of potential for publications. I am happy that the Department is bringing out a special issue of its journal - Management Innovator in the form of its January-July edition.*

*The outcomes from the Webinar would have extensive visibility and reach through this publication and I am sure that it will support creative thinking, critical analysis and deeper learning on the themes discussed.*

*I wish the Department continues in their efforts to promote quality research as well as better learning in the field of Management Studies. I wish the readers an enriching experience of the Webinar outcomes and wish you all the very best in your academic endeavours.*

**Prof. V.P. MAHADEVAN PILLAI**

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**REDEFINING THE SKILL OF MANAGERS RIGHT THROUGH THE PERIOD OF COVID 19**

*Anjali S, Research Scholar in Commerce  
SD College Research Centre, University of Kerala*

**Abstract**

The manager is a person responsible for managing an entity or group of employees. A manager, entrusted with a leadership role, is responsible for overseeing a department or group of staff within a particular organisation or corporation. When the final performance is useful for prioritising and selecting a valuable strategically matched portfolio, the position of manager is efficient. The landscape of work is shifting. Around the same time, more millennials are taking on management positions when the work spaces of managers undergo drastic changes. In the current period of Covid pandemic, bureaucratic systems of the past will not work. Therefore, the spinal of the current research study is to study the skill enhancement of managers right through the period of Covid 19. In the present analysis, all managers of the software and hardware sector in the IT sector at Infopark constitute the population. Factor Analysis is used to study the skill enhancement of managers right through the period of Covid 19. In addition, the ANOVA test was used to assess the statistical disparity between managers' skills. Thus, it is concluded from the analysis that "Working with people", "Technology use and Administration" and "Self management and Problem solving" are the most important skills expected from the managers of IT sector at Infopark. Also, the result showed that there is no difference between the skills of managers at software and hardware sector of IT companies at Infopark.

**Key words :** *Managers, Infopark, Working with people, Technology use and Administration, Self management and Problem solving*

**Introduction**

The manager is a person responsible for managing an entity or group of employees. In order for subordinates to be able to grasp what is anticipated from higher authorities, managers must communicate knowledge to subordinates. When the managers grasp general objectives and expectations better, they collaborate with colleagues to accomplish the goals of the company. Managers facilitate an organisation to be placed in place internally during the development of a portfolio to gather new ideas, initiatives and needs. When the final performance is useful for prioritising and selecting a valuable strategically matched portfolio, the position of manager is efficient. The further the mechanism is able to catch the organization's actual strategic commitment and combine it with the past ongoing operations, the more the position of an organization's manager as a success factor in creating the correct portfolio would be. Their position and status in a company should therefore be viewed as a particular matter to be managed within portfolio management and delegated to a specific team as a clear responsibility.

**Need and significance of the study**

In an organisation, the role of a manager is very important. He is a planner, a coordinator, a marketer and a producer. An organization's success would depend on the manager's calibre in using the tools to achieve business objectives. A manager is a central figure in the project of producing wealth. There are rapid technological advances, manufacturing processes, marketing strategies, financial set-up, and the manager should be sufficiently knowledgeable to cope with the changes. A manager, entrusted with a leadership role, is responsible for

overseeing a department or group of staff within a particular organisation or corporation. In any industry, managers are used, and the business model depends on their leadership and ability to operationalize the system of management. Working as a manager is an achievement, because it demonstrates the capacity of a professional to guide, supervise, handle tension, and interact efficiently with co-workers successfully. Managers contribute to organisations in substantial ways in every industry, which is expressed in business income, organisation, and overall morale in the workplace.

We all know the landscape of work is shifting. The jobs that will be in demand are changing as artificial intelligence, machine learning, and robotics automate more. Teams are becoming more disparate and new teamwork problems have been introduced by globalisation. Around the same time, more millennials are taking on management positions when the work spaces of managers undergo drastic changes. As IT managers adapt to social distancing behaviours and a new work climate that they could never have expected, the corona virus pandemic has affected organisations and forced them to rethink their roles. To stop the corona virus from spreading, IT companies have shifted to a remote work model at a pace and size never seen before. Managers must do tough work in difficult conditions when face-to-face collaboration is replaced by e-mail and videoconferencing. HR professionals are worried not only about their employees' health and well-being during the pandemic, but also about handling paperwork and offering comfort to the millions of people who have been laid off or furloughed. Managers are attempting to keep their employees active, inspired, involved, and linked while they are still on the job, all of which are shifting targets to the normal condition. Change will happen so dramatically that in 10 years from now, 50 percent of the jobs that occur today will not exist. And we're going to be living in an atmosphere that is incredibly adaptable and constantly evolving. Managers are going to need new talents, too, in the middle of all this flux. In the next century, bureaucratic systems of the past will not work. But make sure to retain these skills at the forefront as managers prepare their future managerial career. As the current task of managers is to transition to a 100% autonomous and 100% accountable workforce, success is focused on the outcomes they achieve, not the hours they work. If we see more workplaces like this and more organisational versatility, managers will really have to concentrate more on the skills elements. Therefore, the spinal of the current research study is to study the skill enhancement of managers right through the period of Covid 19.

**Objective:** To identify the skill enhancement of managers right through the period of Covid 19 at IT Sector of Infopark in Kerala

**Null hypothesis (H0):** There is no difference in the skill enhancement of managers right through the period of Covid 19 at IT Sector of Infopark in Kerala

### ***Methodology of the study***

In the IT Sector of Infopark in Kerala, focused on the software and hardware sector, the reason for this study is to define skill enhancement of managers right through the period of Covid 19. Primary data were collected by a questionnaire based on Google Survey Method from the software and hardware business managers of the IT Sector of Infopark in Kerala. In the present analysis, all managers of the software and hardware sector in the IT Sector of Infopark in Kerala constitute the population. At Infopark, there were 352 registered IT companies as of 31.03-2020. Of these, the study is confined to Infopark's 75 registered IT firms. For the present analysis, the input used to assess the sample size of the companies is population 352; Z value in a normal distribution at two tailed test 1.96; significance level 5 percent and confidence interval 10 percent. 4 managers are considered in each organisation. Thus, for the present analysis, the total size of the managers is 300, evenly divided into the software and hardware field managers. For the current analysis, a one month period was chosen during September 2020 to administer the questionnaire. Factor Analysis is used at the

Infopark IT Sector of Kerala to study the skill enhancement of managers right through the period of Covid 19. In addition, the Anova test was used to assess the statistical disparity between managers' skills.

### Results and Discussion

**Table 1.1**  
**The Skill enhancement of managers right through the period of Covid 19 at IT Sector of Infopark in Kerala - KMO and Bartlett's Test**

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.732
Bartlett's Test of Sphericity	Approx. Chi-Square	1242.971
	df	36
	Sig.	.000

Source-Primary Data

The Kaiser-Meyer-Olkin Sampling Adequacy Measure and Bartlett's Sphericity Test were chosen to measure the degree of the samples covered and the reliance. The Kaiser-Meyer-Olkin Sampling Adequacy Measure (73.2%) indicates there is high sample adequacy. Bartlett's Sphericity Test is significant (Approx. Chi-Square 1242.97; p value 0.000, less than 5%), indicates, there is an association of the Skill enhancement of managers right through the period of Covid 19 at IT Sector of Infopark in Kerala.

**Table 1.2**  
**The Skill enhancement of managers right through the period of Covid 19 at IT Sector of Infopark in Kerala - Communalities**

Skills of Managers	Initial	Extraction
Analytical thinking & Innovation	1.000	.729
Active learning and learning strategies	1.000	.682
Complex problem solving	1.000	.723
Critical thinking & analysis	1.000	.724
Creativity, Originality & Initiative	1.000	.837
Leadership & Social influence	1.000	.802
Technology use, Monitoring & Control	1.000	.880
Resilience, Stress tolerance & Flexibility	1.000	.846
Reasoning, Problem solving & Ideation	1.000	.848
Extraction Method: Principal Component Analysis.		

Source-Primary Data

While evaluating the components to classify the Skill enhancement of managers right through the period of Covid 19 at IT Sector of Infopark in Kerala, it has been noted that the extraction values of all components are high. The highest extraction value is assigned to Technology use, Monitoring & Control (Extraction value 0.880), and it is followed by Reasoning, Problem solving & Ideation (Extraction value 0.848), Resilience, Stress tolerance & Flexibility (Extraction value 0.846), Creativity, Originality & Initiative (Extraction value 0.837) and so on.

**Table 1.3**  
**The Skill enhancement of managers right through the period of Covid 19 at IT Sector of Infopark in Kerala – Communalities Total Variance Explained**

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	3.053	33.922	33.922	3.0	33.922	33.922	2.85	31.666	31.666
2	2.337	25.966	59.887	2.3	25.966	59.887	2.52	28.012	59.679
3	1.682	18.693	78.580	1.6	18.693	78.580	1.70	18.901	78.580
4	.478	5.311	83.891						
5	.383	4.261	88.152						
6	.319	3.545	91.697						
7	.305	3.394	95.091						
8	.265	2.946	98.037						
9	.177	1.963	100.000						

Extraction Method: Principal Component Analysis.

Source - Primary data

Out of 9 components to classify the Skill enhancement of managers right through the period of Covid 19 at IT Sector of Infopark in Kerala, it has been noted from the Extraction Sums of Squared Loadings that, the % of Variance of the first factor is 33.92%, the influence of the second factor is 25.96% and the third factor 18.69%, so that the cumulative effect of the three factors is 78.58%.

**Table 1.4**  
**The Skill enhancement of managers right through the period of Covid 19 at IT Sector of Infopark in Kerala - Rotated Component Matrix**

The Skills of Managers	Component		
	1	2	3
Analytical thinking & Innovation	.851	.052	-.055
Complex problem solving	.850	.026	.024
Critical thinking & analysis	.844	.104	.031
Active learning and learning strategies	.825	.013	-.041
Technology use, Monitoring & Control	.043	.934	-.067
Creativity, Originality & Initiative	.029	.914	-.002
Leadership & Social influence	.095	.891	-.006
Reasoning, Problem solving & Ideation	-.018	.001	.921
Resilience, Stress tolerance & Flexibility	-.011	-.061	.918
Extraction Method: Principal Component Analysis.			
Rotation Method: Varimax with Kaiser Normalization.			
a. Rotation converged in 4 iterations.			

Source: - Primary data

Out of 9 components to classify the Skill enhancement of managers right through the period of Covid 19 at IT Sector of Infopark in Kerala, the influence of Analytical thinking & Innovation (Variance Score -0.851), Complex problem solving (Variance Score -0.850), Critical thinking & analysis (Variance Score -0.844) and Active learning and learning strategies (Variance Score -0.825) are in the first factor and is termed as **“Working with people”**.

The influence of Technology use, Monitoring &Control (Variance Score -0.934), Creativity, Originality & Initiative (Variance Score -0.914 and Leadership &Social influence (Variance Score -0.891) are in the second factor and is termed as **“Technology use and Administration”**.

The influence of Reasoning, Problem solving &Ideation (Variance Score -0.921) and Resilience, Stress tolerance &Flexibility (Variance Score -0.918) are in the third factor and is termed as **“Self management and Problem solving”**.

**Table 1.5**

**The Skill enhancement of managers right through the period of Covid 19 at IT Sector of Infoparkin Kerala – Descriptive Analysis**

		N	Mean	Std. Deviation	Std. Error
Working with people	Software	138	5.913	0.88409	0.07526
	Hardware	137	5.8613	0.98375	0.08405
	Total	275	5.8873	0.93372	0.05631
Technology use &Administration	Software	138	4.0821	1.69911	0.14464
	Hardware	137	4.1119	1.63213	0.13944
	Total	275	4.097	1.6631	0.10029
Self management&Problem solving	Software	138	5.8913	1.11352	0.09479
	Hardware	137	5.8321	1.10026	0.094
	Total	275	5.8618	1.10531	0.06665

Source: - Primary data

The mean score attributed to the managers of Software sector of IT companies for the skill Working with people is  $5.91 \pm 0.88$  and that of the Hardware managers have assigned an average score of  $5.86 \pm 0.98$ . Likewise, the managers of Software sector of IT companies assigned an average score for the skill Technology use &Administration is  $4.08 \pm 1.69$  and that of the Hardware managers have assigned an average score of  $4.11 \pm 1.63$ . At the same time, the skill Self management&Problem solving got an average score of  $5.89 \pm 1.11$  and  $5.83 \pm 1.10$  attributed by managers of Software and Hardware sectors respectively. The standard error is lower for the score assigned by the managers of Software sector; hence their opinion is more stable

**Table 1.6**  
**The Skill enhancement of managers right through the period of Covid 19 at IT Sector of Infopark in Kerala –Anova Test**

		Sum of Squares	df	Mean Square	F	Sig.
Working with people	Between Groups	.184	1	.184	.210	.647
	Within Groups	238.696	273	.874		
	Total	238.880	274			
Technology use & Administration	Between Groups	.061	1	.061	.022	.882
	Within Groups	757.798	273	2.776		
	Total	757.859	274			
Self management & Problem solving	Between Groups	.241	1	.241	.197	.658
	Within Groups	334.508	273	1.225		
	Total	334.749	274			

Source: - Primary data

The statistical significance was test with the support of the Anova test. All p values are greater than 5%. Hence, it concluded that there is no difference in the skills of Software and hardware sector Managers in 2025 at IT Sector of Infoparkin Kerala. Null hypothesis is failed to reject.

### Conclusion

Thus, it is concluded from the analysis that “Working with people”, “Technology use and Administration” and “Self management and Problem solving” are the most important skills expected from the managers of IT sector at Infopark. According to the Rotation Sums of Squared Loadings, % of Variance of the skills namely “Working with people” is 31.67%, “Technology use and Administration” 28.01 and “Self management and Problem solving” 18.9%. The Cumulative % shows that the effect of “Working with people” is 31.67%, when “Technology use and Administration” joins it leads to 59.68% and finally Self management and Problem solving” clubs the cumulative effect will be 78.58%. Thus, it is clear that up to 78.58%, the support of the three factors can be used to explain precisely. Also, the result showed that there is no difference between the skills of managers at software and hardware sector of IT companies at Infopark.

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## POST COVID CONSEQUENCES ON SMALL SCALE INDUSTRIES IN THE DEVELOPMENT OF ENTREPRENEURSHIP IN INDIA

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### **Abstract**

*Small Scale Industries are those industries in which the manufacturing, production and rendering of services are done on a small or micro scale. These industries make one-time investment in machinery, plants and industries but it does not exceed above Rs. 1 crore. The small scale industries have a vital role in the economic development of India. It creates employment opportunities and motivates jobless to job creators. Covid-19 pandemic has affected the Indian economy and global economy. Due to the Covid-19 lockdown the economy has faced a major challenge. According to the ILO, about 400 million people (76.2% of the total work force) working in the informal economy in India were said to be at risk of poverty because the unknown duration and severe economic impact of the covid-19, with particular vulnerabilities in the realm of low paid, low-skills jobs where income loss can have a particularly severe effect. In this context, the present paper attempts to find out the consequences on small scale industries in the development of entrepreneurship in India due to Covid-19. It also discusses the remedial measures taken for the progress of functioning of Small Scale Industries (SSIs).*

*KEY WORDS: Small Scale Industries (SSIs), Economy, Development, Covid-19, Employment, Entrepreneurship, Entrepreneur, Growth, India.*

### **1. INTRODUCTION**

Small Scale Industries has a significant role in the economic growth and development of the country. The Small Scale Industries are generally comprised of those industries which manufacture, produce and render services with the help of small machines and less manpower. These enterprises must fall under the guidelines, set by the Government of India. The SSI's are the lifeline of the economy, especially in developing countries like India. These industries are generally labour-intensive, and hence they play an important role in the creation of employment. SSI's are a crucial sector of the economy both from a financial and social point of view, as they help with the per capita income and resource utilization in the economy. India witnessed a remarkable growth of small-size enterprises since independence. In India most of the entrepreneurs are originated from the small scale industries, which focused to eliminate the problems of unemployment, regional disparities, under utilization of resources, etc. Entrepreneurship is the art or science of innovation and risk-taking in profit maximization of a business. Entrepreneurial development in any nation proves to be a boon for the growth of its economy. The aim of this study is to analyze and understand the role and importance of small-scale businesses in the development of entrepreneurship in India. The growth in small scale industries play a crucial role in the raising up of new entrepreneurs with regards to the objectives of structural diversification, modernization and self reliance of the nation.

India has always been a land of entrepreneurs. The first phase of entrepreneurship emerged when the Aryan conquerors settled down in this country by suppressing the non-Aryans. They appropriated the products of village communities to themselves leaving a little for the villagers or native. During Pre-independence, era, agriculture was the main- stay of the people of India. It is said that besides agriculture, a class of businessmen specialized in

manufacturing of handicrafts; metal works', stone carving and jewelry designing, etc. had dominated the industrial- Entrepreneurship sector in rural areas. Those communities were known as Baniyas, Parsis, Cheriars and Gujarati's, etc. These communities actually laid the foundation of Entrepreneurship by establishing small- scale industries and manufacturing centers. Two types of small scale firms were found in those periods are, Cottage industries, manufacturing woodcraft items, jewelry designing, stone carvings, iron works, horne works, etc. Village industries comprising handloom and textile production, brass and bell metal works developed in clusters.

Entrepreneurship play vital in the Economic growth and development of the country and new product formation and technological change in production process and economic transformation is occurs due to effective entrepreneurship. An entrepreneur takes more risk for the organizational development and He gives innovation to the industry. This types of habit of taking high risk, innovate new things, brings economic development of the country.

### 1.1 Characteristics of SSI

- **Ownership:** SSI's generally are under single ownership. So it can either be a sole proprietorship or sometimes a partnership.
- **Management:** Generally both the management and the control is with the owner/owners. Hence the owner is actively involved in the day-to-day activities of the business.
- **Labor Intensive:** SSI's dependence on technology is pretty limited. Hence they tend to use labour and manpower for their production activities.
- **Flexibility:** SSI's are more adaptable to their changing business environment. So in case of amendments or unexpected developments, they are flexible enough to adapt and carry on, unlike large industries.
- **Limited Reach:** Small scale industries have a restricted zone of operations. Hence, they can meet their local and regional demand.
- **Resources utilization:** They use local and readily available resources which help the economy fully utilize natural resources with minimum wastage.

### 1.2 Role in the Indian economy

- **Employment:** SSI's are a major source of employment for developing countries like India. Because of the limited technology and resource availability, they tend to use labour and manpower for their production activities.
- **Total Production:** These enterprises account for almost 40% of the total production of goods and services in India. They are one of the main reasons for the growth and strengthening of the economy.
- **Make in India:** SSI's are the best examples for the Make in India initiative. They focus on the mission to manufacture in India and sell the products worldwide. This also helps create more demands from all over the world.
- **Export contribution:** India's export industry majorly relies on these small industries for their growth and development. Nearly half of the goods that are exported from India are manufactured or produced by these industries.
- **Public Welfare:** These industries have an opportunity to earn wealth and create employment. SSI's are also important for the social growth and development of our country.

### 1.3 Objectives of SSI

The objectives of the small scale industries are:

- To create more employment opportunities.
- To help develop the rural and less developed regions of the economy.
- To reduce regional imbalances.
- To ensure optimum utilization of unexploited resources of the country.
- To improve the standard of living of people.
- To ensure equal distribution of income and wealth.
- To solve the unemployment problem.
- To attain self-reliance.
- To adopt the latest technology aimed at producing better quality products at lower costs.

#### 1.4 Registration of SSI

SSI registration is a registration provided by the Ministry of MSME. A business should obtain SSI registration in order to be eligible for a number of schemes, subsidies and other incentives provided by the Government to such SSI's. SSI registration can be obtained online too.

Small businesses in India are facing existential crisis due to the covid-19 lockdown that could pose insurmountable challenges for them, according to CRISIL. The credit rating agency has warned in its study that corona virus crisis will knock off a fifth of the revenues of micro, small and medium enterprises (MSMEs), as the Indian economy is pegged to shrink 5% in FY21 owing to weak demand due to COVID-19 pandemic and the subsequent lockdown. The report further highlighted that the margins of small businesses will also contract by 200-300 basis points (100bps=1 percentage point), especially for the micro-segment, which accounts for 32% of the overall MSME debt.

"A sharp decline at the operating level will also impact creditworthiness, aggravating the liquidity stretch these units have been grappling with, particularly on the working capital front," Crisil cautioned in its study. There is a contraction in the Indian economy will hurt MSMEs considerably across sectors. It stated that pain will exacerbate as India Inc heads towards around 15% drop in its revenues and about 25% decline in earnings before interest, taxes, depreciation, and amortization (EBITDA). This could turn out to be a death knell for small businesses. For MSMEs, the fall in revenue will be steeper at 17-21%, while EBITDA margin will shrink 200-300bps to 4-5% as weak demand gnaws away gains from lower commodity prices. Indian economy came to a standstill over the last three months as a countrywide lockdown to stem corona virus spread shuttered shops and factories alike, destroying consumption.

The essence of the study is to find out the consequences due to Covid-19 pandemic on Small Scale Industries in the development of entrepreneurship in India. It also discusses the government support provided for the regrowth in Small Scale Industries and the development of entrepreneurship after Covid-19.

## 2 OBJECTIVES

- 1) To explore the role and importance of SSIs in the development of entrepreneurship in India.
- 2) To explore the positive impact of entrepreneurship in economic development of India during Covid-19 Pandemic.
- 3) Analyze the aim of Government policies and Institutions supporting in the development of entrepreneurship and SSIs in India after Covid-19 Pandemic.

### 3 SCOPE OF THE STUDY

The study particularly focuses on Covid-19 pandemic consequences on Small Scale Industries in the development of Entrepreneurship in India.

### 4 REVIEW OF LITERATURE

McKibbin and Fernando (2020) utilized the computable general equilibrium (CGE) modelling and reported that global GDP would be reduced by around US\$2.4 trillion in 2020 under a low-end pandemic considering the Hong Kong Flu as a reference point. However, the fall can extend to the tune of over US\$9 trillion in 2020 in case of a serious outbreak similar to the Spanish flu.

Ozili and Arun (2020) noted the spillover effects of COVID-19 and hailed that the social distancing measure of virus controlling led to the shutdown of financial markets, corporate offices, businesses and events which in turn may have significant impact on economic growth. As per the International Labour Organization (ILO) estimation, the total value added of industrial enterprises in China declined by 13.5 per cent during the first 2 months of 2020 (National Bureau of Statistics of China, 2020). There are many projections and estimations by institutions and scholars on the economic fallout of COVID-19 pandemic. Though there are variations in degree and magnitude of the fall out, now there is a reasonable amount of coconscious that the economic impact would be severe on the world economy and also on Indian economic growth, much more than the global financial crisis (GFC) of 2008. IMF in its latest estimate in June 2020 projected that the global economy may shirk by 4.9 per cent, almost three times more than GFC, and the Indian economy is likely to witness 4.5 per cent negative growth for the 2020.

ILO (2020) estimated that global unemployment can range between 5.3 million and 24.7 million from a base level of 188 million in 2019 pushing these people towards below poverty line. Most of existing studies have focused on global growth, trade and unemployment, a few are country specific especially India. In this context, the present study aims to make an assessment of COVID-19 on Indian economy and highlights key policy measures to control the possible fallout on the economy. The study contributes the existing literature while analyzing the impact on Indian economy with more focus on growth, trade, manufacturing and MSMEs. The detailed procedure of the assessment is reported in the next section.

### 5 RESEARCH METHODOLOGY

Data for the present study have been collected from secondary source. The present study mainly considers the secondary data for the analysis of the influence of SSIs in India in the development of Entrepreneurship. The secondary data were collected from various publications of economic reviews, journals of management, Indian management studies, etc.

### 6 RESULTS AND DISCUSSION

#### 6.1 Entrepreneurship Development: Role of the SSIs in India.

The concept of “entrepreneur” and the “entrepreneurship” have gone through various stages before they came to signify the content being put into them now. Various thinkers have defined the term in a variety of ways. In order to understand the phenomenon of entrepreneurship as whole, it is worthwhile to analyze these definitions and views independently. The word “entrepreneur” is derived from the French verb “entreprendre”, means “to undertake”. The word entrepreneur has been in use since the sixteenth century. Kilby has linked the entrepreneur with a rather large and very important animal called “Heffalump” hunted by many individuals and have variously described him, but wide

disagreements still exist among them on his particularities (Peter Kilbly, 1971). The French men who organized and led military expeditions were referred to as “entrepreneurs” (Peterson, 1962). The urge for rapid economic growth was natural after the attainment of political independence. Mahatma Gandhi and his followers favored SSIs because these would provide employment without much investment, would help in the dispersal of industry to rural areas, produce much needed consumer- goods and avoid the concentration of economic power, dehumanization and pollution inherent in large- scale industries. The entrepreneur is one of the most important inputs in the economic development of a country or of a region within the country. Entrepreneurial competence makes all the difference in the rate of economic growth. In India, state and private entrepreneurship co-exist. The SSI sector and business are left completely to private entrepreneurs. It is in this context that an increasingly important role has been assigned to the identification and promotion of entrepreneurs for this sector.

The need for a broad- based entrepreneurial class in India arises from the need to speed up the process of activating the factors of production, leading to a higher rate of economic growth, dispersal of economic activities, development of backward and tribal areas, creation of employment opportunities, improvement in the standard of living of the weaker sections of the society and involvement of all sections of the society in the process of growth. This needs achieved through the development of small scale business. The SSI sector, as an important segment of the Indian economy, accounts for around 95 per cent of the industrial units, 40 percent of the manufacturing sector output, 35 per cent of exports and provides direct employment to 18 million persons in around 3.2 million registered SSI units in the country. The sector enjoys the pride of being second largest employer in the country and offers a wide spectrum of products. The sector serves as a green field for the nurturing of entrepreneurial talent enabling the small-scale units to graduate into medium scale. The SSI sector has been receiving attention from the policy makers by way of support and incentives, infrastructural facilities, technology, marketing and other similar measures.

## **6.2 Aims of Government Policies and Measures for Promoting SSIs.**

Due to concerted efforts of both the Central and State governments, the small industrial sector has emerged as a dynamic sector of the national economy. Government policy regarding small industry aims at; encouraging and facilitating the entry of new entrepreneurs into this sector; supporting the growth of this sector in a variety of ways; protecting the small units from intensive competition from medium and large sector; solving the problems and hurdles in the way of this sector; ensuring that small units pay due regard to such aspects as the need for productivity enhancement, technology and export development.

In 2020, the **COVID-19 pandemic** has threatened the Indian economy resulting in the possibility of a breakdown of the MSME sector. Various reports, researches and surveys have proved again and again that this sector act as a catalyst for socio-economic development of the country. All this becomes more important with government’s new mission of achieving \$5 trillion economy target by 2025. Within this target the role of MSME sector is going play an important role, with expected contribution to GDP above 50% mark. The potential of Indian MSME sector is still untapped and that is one of the reasons why government policies are now more convergent towards building resilient ecosystem with better breadth and depth.

The announcement of country wide lockdown dragged MSME owners, employers and external stakeholders in unexpected times, where no one had experience to handle this kind of situation. Extended lockdown had negative impact on supply of finished goods, procurement of raw material and availability of employees to work in production and supply processes. During April to June 2020, sector faced challenges related to debt repayments, wages/salaries, statutory dues, etc.

Survey reports have shown that disruptions caused by the Covid-19 pandemic have impacted MSMEs earnings by 20-50%, micro and small enterprises faced the maximum heat, mainly due to liquidity crunch. Enterprises working in essential commodity business were better off in terms of interrupted but predictable cash flows. Some enterprises innovated their ways by shifting focus from non-essential commodities towards essential commodities; like production of hand sanitizer and toiletries, PPE kits, reusable masks, etc. and are able to survive in tough times. MSMEs present in remote areas also faced lots of difficulties due to interrupted supply chain systems and intrastate lockdown provisions.

It is not only the enterprise which faced challenges; even consumers are left with lower disposable income. Many enterprises laid-off their workers because of inability to pay salaries, vacated their offices due to incurring expenses and halted their production due to stopped demand. Ambiguity in future trade and bounce back of new normal is keeping financial institutions at bay for extending any new financial lending or cover potential risk. This all-round uncertainty needed a push by government, to boost market confidence and bring back regular cash flow in economy.

Economic slowdown along with border tensions, had again dragged us to focus back on self-sustainable values, the Swadeshi dream. The Atmanirbhar Bharat Mission was launched to face two burning issues simultaneously; one being boost to MSMEs and other being less dependent upon foreign nations.

The Government of India has been quick to respond with measures to safeguard the MSME sector and announced the '**Atmanirbhar Bharat**' scheme on 13 May 2020.

The Five pillars of Atmanirbhar Bharat focus on:

- 1) Economy
- 2) Infrastructure
- 3) System
- 4) Vibrant Demography and
- 5) Demand

The Five phases of Atmanirbhar Bharat are:

- Phase-I: Businesses including MSMEs
- Phase-II: Poor, including migrants and farmers
- Phase-III: Agriculture
- Phase-IV: New Horizons of Growth
- Phase-V: Government Reforms and Enablers

## 7 CONCLUSION

Business enterprises need to be innovative for their survival and better performance. It is believed that smaller firms have relatively higher necessity and capability to innovate. The smaller firms do not face the constraints imposed by large investment in existing technology: thus they are both free and compelled to innovate. Entrepreneurship development programmes are aimed to accelerating the pace of small firm's growth in India. Increased number of small firms is expected to result in more innovations and make the Indian industry compete in international market.

There is growing realization about potential contribution of small enterprises both in developed and developing countries. Healthy small business sector is rightly considered to be the backbone of any developed economy. Entrepreneurship training in most countries of the World is being increasingly tried to promote local entrepreneurship and accelerating the pace of small enterprise development.

The study was concluded that the Covid-19 pandemic has created a huge loss in the Small Scale Industries. The Ministry of MSME is taking steps towards making these enterprises global and improve the overall business environment, by making it more conducive and transparent for all stakeholders. The sector also hold answer to critical questions like unemployment, local economy development, fiscal deficit, trade balance, financial sector development, SDG alignment and so on. Private sector engagement in various bottlenecks of value chain and supply chain system is critical for success of various policies announced by the government. Enterprises of any size in India is facing issues related to procurement of raw material, credit need, market linkages, quality, standardization, pricing, business turn-around time, lobbying and many more. New steps taken by government are expected to act as a catalyst for the sector, not only to come out of pandemic related shocks but also to get ready for brighter future.

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**IMPACT OF COVID -19 ON PRIVATE HOSPITALS IN KERALA: A CASE STUDY APPROACH**

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**Abstract**

Healthcare sector is an extreme people centric and person-oriented industry. Service is consumed and administered by people and the service experience is different in various circumstances because of heterogeneity of service product. Employees have the crucial role in service delivery of medical services. Satisfied employee can only satisfy a patient and vice versa. The importance of human resources within an organization is becoming increasingly accepted in today's rapidly changing and uncertain business environment. Healthcare sector especially private healthcare hospitals face many challenges in maintaining good quality services at an affordable price. The aim of this article is to explore actual situations through which both the service provider and service recipient underwent during the pandemic period. This article also tries to find out the human resources practices implemented and how it facilitates employee's service delivery during Covid period. The study is based on situational theory and envisions the need of situational modifications of human resource practices and service delivery parameters in uncertain circumstances. The study is qualitative in nature and a case study was used to get an in- depth understanding of the topic. Purposive sampling method was used to select hospital employees and patients. Primary data was collected through semi-structured interviews with doctors, nurses, paramedical staff and patients which includes open ended questions and secondary data was collected from related journals, books, newspaper and internet, etc. Direct observation was also involved as a method of data collection. Study analyzed that even though healthcare service is a vital requirement in pandemic situation, the staff were in a very difficult situation due to the poor or very nominal human resource practices implementation. Covid -19 severely disrupted all the areas of life and health care sector also faced severe turbulences. Most private healthcare facilities activated their epidemic plans that required huge investments in making facilities prepared for infection control and prevention, creating infrastructure for isolation and COVID treatment, as well as equipping them with appropriate medical supplies. The number of patients visiting hospitals for common diseases drastically reduced due to their fear to approach hospital physically for their medical needs. Employees were also directly or indirectly affected due to this unexpected situation. It affected them to provide time bound and specialized services to patients. They restrict themselves to reduce the frequency and duration of patient interactions due to the pandemic. Patients did not get the opportunity for individualized care and warm atmosphere in the hospital. Medical services were not easily accessible to all people due to drastic increase in medical cost due to the financial crunch of hospitals. Hence the covid period is a tough time for both hospital staff and patients and improper execution of human resource practices and service delivery parameters aggravated its intensity.

**Keywords:** *Covid- 19, human resource practices, service delivery, pandemic, healthcare sector*

**Introduction**

Corona virus disease has spread to more than 198 countries and it badly affected life, family and economic status of millions of people. It affected all the sectors irrespective of sectoral stability and geographical boundaries. Healthcare sector is one of the highly affected industry in terms of staff exposure to corona virus, loss of life and job. Frontline healthcare workers are at the top most risk of physical and mental consequences due to the provision of care to patients with covid- 19. Apart from this, hospitals were also not in a position to extend their support to staff due to their limitation. Many analysis and studies are conducted to study the

impact of corona virus to all the sectors and all of them are discussing the financial loss and infrastructural limitations. But how it affected the work atmosphere and execution of human resource management policies in reality are missing. A service industry like healthcare sector differentiates its competitiveness and performance mainly based on its people. So, the turbulences in the execution of human resource management practices have greater influence on the execution of quality service and patient experience.

### **Objectives**

- To study the human resources management practices in the hospital and its execution in post covid period
- To study the delivery of services to patients in post covid period.

### **Literature review**

Dessler (2007) defines human resource management as the policies and practices involved in carrying out the human resource aspects of a management position including human resource planning, job analysis, recruitment, selection, orientation, compensation, performance appraisal, training and development, and labor relations. A service is, “an activity or series of activities of more or less intangible nature that usually, but not necessarily, takes place in interactions between service employees and customers” (Grönroos, 1990).

According to Galperin and Lituchy (2014), employees in service firms need people related skills. HRD intervention plays a central role in the provision of skills to deliver high-quality services. HRD efforts will ensure that service employees are providing reliable and responsive service and the service employees have the needed skills to demonstrate courteousness and individualised care to patients and hence the services are delivered with empathy and assurance.

In their study among employees, customers and managers of three- and four-star hotels, Chi andGursoy (2009) said that service companies have been allocating significant resources for employee and customer satisfaction. Satisfied employees are likely to provide better services, which lead to a satisfactory service experience to the customers.

Ahmada and Schroeder (2003)opined thathuman resources has critical role in achieving superior performance in competitive advantages such as low cost, , delivery, flexibility, quality, and innovation. Management of HRM system hasgained more attention in service organizations than manufacturing organizations. So, the organizations need to carefully evaluate their existing HRM practices and modify them, if needed.

According to Nankervis and Debra(1995), human resources play an important role in the success of organizations. If the success of an organization depends on the calibre of its employees, then it is important to manage it effectively. Organizations need to utilize their human resources effectively to provide high-quality service to their customers.

Bowen, Gilliland and Folger (1999) said that employees are the principal focus for customersin labour-intensive service business. Service firm’s HRM practices not only affect employees but also have a “spill over effect” on to customers in service firms. Customersexpect service companies to deliver thepromised service dependably and consistently, to offer clean, comfortablefacilities, to give prompt service, to be competent and courteous, and to extend caring, individualizedattention.

Tomar and Dhiman (2013) said that efficient management of HRM function is necessary for improving and maintaining service delivery in hospitals. Meeting the expectations of the frontlinestaff can lead to a more effective patient care and hence quality service delivery. In their linkage research in retail banks Schneider et al (2009)found that when employees rated certain human resource management practices favourably, customers had more positive service experiences.

Pugh et al (2002) analysed that most services involve some degree of contact or closeness between employees and customers. Customers participate actively inservice delivery based

on their bonds or relationships and the degree of closeness to the employees. Tsaura and Linb(2004) said that increased service quality through increased employee performance is a viable way for hotels to remain competitive. Service quality depends heavily on the effectiveness with which front-line employees deal with customers. There is relationship between organizational HRM practices and customers' perceptions of service quality and which is mediated by various factors like employee service behaviour. Dahl and Peltier (2009) opined that health care is an extraordinarily people-centric industry. People including doctors, nurses, administrators, and staff play a crucial role in the service delivery process. Dess & Beard, (1984) describes uncertainty of the environment as a rate of change and unpredictability of changes in the organizational external environmental factors. Galbraith (1977) defines uncertainty as a gap between the information which one has and the information which one needs to perform a task. Baum and Wally(2003) recommends that dynamic business environment consist of the amount of uncertainty originating from external environmental factors. Scott W, R (1981) describes contingency theory as "The best way to organize depends on the nature of the environment to which the organization must relate". Datta & Guthrie (2005) said that "contingency model has proposed the extent or direction of the effect of the HRM on the firm performance will depend on the firm's environmental conditions. Debrah Y, A (1994) examines how external and internal environment factors affect the HRM of operative staff of hotel industry. To mitigate the effect of external environment successfully, HR managers should pay more attention to the development of internal HRM practices and strategies.

### **Methodology**

This research is qualitative exploratory design and a case study was used to get an in- depth understanding of the staff and patient experience related to human resource management practices and delivery of services respectively in a single hospital. During corona period entire healthcare sector faced lot of challenges and it is more destructive in private hospitals. Majority of Kerala private hospitals are always struggling to provide quality medical services at moderate price to all the needy. Corona is great threat to them and hence to get a deeper insight of various dimensions, researcher used a single case for the study. The selected hospital is NABH pre accredited and it is driving for NABH accreditation which needs proper execution of human resource practices and quality service delivery. Purposive sampling method was used to select doctors, nurses, paramedical staff and patients. Primary data was collected through semi-structured interviews with respondents which included open ended questions. Direct observation was also used in the research. The secondary data have been collected from related journals, books, newspaper and internet.

### **About the Case**

Hospital started in 1953 as a 20 bedded clinic with one doctor and registered as a charitable trust. The unique selling proposition of the hospital is the provision of quality treatment cost effectively. Hospital aims to cater middle class community. Current bed strength of the hospital is 460 and it has 29 specialized departments. The HR department of the hospital started in 2014. There is one HR manager, one assistant manager and one trainee in the department. Hospital has 69 doctors, 350 nurses, 15 radiology staff, 22 laboratory staff, 30 pharmacy staff.

### **HRM practices during pre covid and post covid period**

#### **Recruitment**

Major recruitment sources of the hospital are walk in enquires, telephonic enquiries, existing employee's referral, hospital's nursing school, nursing college and paramedical college and emails. Public relation team facilitates doctor's recruitment. Candidates have to submit their resume to initiate the selection process There is no formal selection process for the doctors.

They have an informal meeting with the general manager and director. IP nurses have written test, practical viva, and various levels of interviews. First level was taken by chief nursing officer and the nursing staff who is the in-charge of Continuous Nursing education program. Second level interview is by directors. Paramedical section, selection was based on the candidate's performance in practical, written test and interview. Interview is taken by directors, HR manager and concerned paramedical section in-charge

There is no recruitment and selection process during corona period in the hospital. Only interns were taken to paramedical sections from their own college without any remuneration. But no interns were taken to nurses' section since their exam was not completed due to covid.

### **Trainings**

Staff had both on the job training and class room training sessions. Trainings were given by both internal and external experts. Behavioral trainings and medicines or equipment familiarization trainings are by external experts. Internal experts are HR manager, PRO, infection control in-charge, nurse's tutor, quality controller, chief nursing officer, paramedical section in-charges, fire and safety officer, nurses and some doctors. Common sessions for all the clinical staff such as doctors, nurses and paramedical staff are on the topics such as hospital acquired infections, surgical infections, antibiotic insights, incident report, hand wash, waste management, fire and safety, staff responsibility, patient care, infection control, admission and discharge summary and NABH accreditation. HR manager is taking classes on joining formalities, leave policies, off days, procedure for maternity leave HR policies, salary, patient's dealings, and performance appraisal. A batch of staff from each section attend trainings on rotational basis without affecting their work. Maximum duration of each class room session is around 1 hour, which won't affect the duty timing.

Doctors don't have fixed number of trainings and they have very few trainings by external expert doctors and it is mainly to satisfy the NABH accreditation requirement. Occasionally doctors are attending Continuous Medical education programs outside the hospital by taking their own expenses. There are around 5 class sessions in a month for nurses. Medical related trainings are done for nurses through CNE programs on every month. Paramedical staff are having 1 or 2 sessions in a month related to their area.

There were no usual training sessions for the staff during the covid period. But they attended covid related trainings 2 times and the duration is 2 hours. The main topics were personal protection and required quality in all the procedures. It was coordinated by quality department and infection control department. It also gives a demonstrational session of usage of PPE kit. Staff were divided into very small groups and classes were given to them in various shifts by maintaining social distancing. More than the class room sessions, management conducted sessions through online media. They had zoom meeting and virtual training sessions. Circulars, messages and pdf notes regarding covid related precautionary measures, different process, mode of patient interaction was communicated through whatsapp.

### **Performance appraisal**

Hospital conducts annual in-charge appraisal to measure the performance of the staff except doctors and non-clinical staff. In-charges are analysing the performance mainly for new joiners before making them into staff category. There is no discussion or interaction between in-charge and staff based on their performance analysis. For the requirement of NABH accreditation a form was distributed to a group of doctors in which they have to mention their capabilities, what they can do for hospital and what are their skills etc. There were no questions related to their previous period performance. After the in-charge appraisal, a form will be distributed among nurses and they have to put their signature on it. But no such form will be given to paramedical staff, instead in-charge will directly hand over it to HR department.

There was no formal and informal performance appraisal process during covid period. Hospital availed limited staff service due to a smaller number of patients. Hence, they were not able to conduct a formal performance appraisal process among the staff.

### **Salary fixation/ revision**

Salary fixation and revision is not based on performance and years of experience. Salary is not revised annually. Staff except doctors don't have any role in salary fixation and revision. Management is deciding on it. Qualification and staff experience in this hospital have some impact on salary fixation. After the completion of probation period staff salary increases. Last salary revision happened after 3 years gap. After the salary revision most of the staff have almost similar salary.

There was no revision in the salary during this pandemic period. During the corona period, only the senior doctors were allowed to work and they were divided into three groups and only one group had duty in one day. All the nurses and paramedical staff had only 15 days of duty. Salary is based on the number of days of duty. Salary reduced due to less number of working days.

### **Awards/ employee achievement**

HRD initiated a program named employee of the month in 2016. Best employee will be selected from various department in every month based on the staff's performance. Concerned department in-charge is making that selection and that will be submitted to the management and finally they will make the ultimate decision. HRD used to give cash award, memento or medal and certificate to those selected employees. There is no recognition or award for doctors based on their performance. If there is any personal achievement for them, they will be appreciated in their WhatsApp group.

There were no performance-based awards to the staff during covid period.

### **Interpersonal relationships**

Staff are having cordial relationship and cooperation among each other. They are supporting each other by making duty adjustments, and extending their working hours. When they are stressed due to work, their colleagues and supervisors are there to support. Staff had cool work atmosphere and they were able to work without any target in terms of patient consultation and revenue generation. They had lot of opportunities for gathering within the department and among the departments. All the staff such as doctors, nurses and paramedical staff had monthly meetings with in their section which was coordinated by in-charge. Staff share their requirements, improvements or suggestions, concerns, issues, explanations related to customer irritations and complaints and in-charge discussed about the required corrections. Doctors meeting will be in the presence of Director and assistant director. All nurses in the particular ward, nursing superintendent, and deputy nursing superintendent, supervisor, and ward in-charge are participating in the ward meetings. Director and assistant director will join paramedical sections' monthly meetings.

Due to Covid, employees lost the free environment in their work place. Earlier they mingled a lot and they had a very warm atmosphere. One radiologist said "earlier we had a happy atmosphere. We had lunch together. but now only 2 staff are allowed to have the food in a table and that also by following social distancing. It is a difficult time for us in all aspects". There was no department, ward, section or hospital level meeting during corona period to avoid social gathering. Common prayer in the beginning of morning shift was stopped.

Employee engagement programs- common programs, activities, games, competitions

Hospital celebrates hospital day, New Year and festivals like Onam, Christmas. During onam and Christmas celebration, entire staff of the hospital is divided into 4 various groups for games and competitions. They have sports among various departments. Public relation officers are coordinating at least 1 program in a month especially on special days such as

breast feeding day, diabetic day etc. Staff had department wise annual picnics. Nurses celebrated nurse's day beautifully.

But there was no such employee engagement programs for the last 1 year. Nurse Anoop said "actually 2020 is nurses' year. So, we had many plans for nurses year. We wanted to celebrate it with many events. Everything went wrong and nothing happened due to covid.

### **Duty timings**

In-charge coordinated duty arrangements and allocation for staff except doctors. Doctors have morning and evening OP. Morning OP starts from 8.30 am and evening OP from 4 pm. The working duration of IP nurses in wards is 6.30 hours in day and 12 hours in night. They are working on shift basis from 7am to 2.00 pm including half an hour lunch break, 1pm to 7.30pm and 7pm to 7 am. In each ward there are around 14 staff for all the shifts. There will be maximum 4 staff and 3 staff in day and night shifts respectively. The working duration of paramedical and reception staff is 8.30 hours including 30 minutes break in day shifts and 12 hours in night shift. Shift timing area shifts are from 7 am to 3.30pm, 10.30 am to 7pm, and 7pm to 7 am.

During the covid period day shift duration became 6 hours. There is change in shift timing in paramedical sections. It changed to 7 am to 1pm, 1pm to 7pm and 7pm to 7 am. It avoids chances of staff mingling in different shifts. Sometimes staff might have an exposure to covid positive patient. Because of this arrangement they won't mingle with other staff in next shift. It's a precautionary measure to reduce the staff shortage risk. Punching stopped to avoid chance of corona virus exposure. 2 or 3 staff are allocated by in-charge in each shift considering the patient volume.

### **Leave management**

All the employees are eligible for 1 AL/ month after the completion of 1 year and 1 CL/ month after the completion of 6 months. Hospital had formal leave application process for doctors and other staff. When availing casual leave or annual leave for one day, doctors inform op in-charge and if the required leaves are more than 1 day, they are directly approaching director and submitting the leave form. Hospital follows leave card system for all other staff. Staff have to write the required date of leave and it will be signed by the concerned staff, in-charge, supervisor and nursing superintendent for nurses and by the concerned staff and section in-charge for paramedical staff and finally it will be given to HR department. In-charge is sanctioning leaves. If the required leaves are for more than 3 days, staff except doctors have to inform assistant director of the hospital with the permission of in-charge. He will communicate his approval to the in-charge and HR department. There is separate form for requesting duty leaves.

Because of corona, management became ready to sanction plenty of leaves. They instructed staff to take 15 days of leave due to decreased patient volume. So they had plenty of leaves. Doctors were also instructed to work only for one third of a month. Junior doctors were asked to take long leaves.

### **Welfare measures**

Management provided protective equipment's to the staff but the requirement was very limited. Doctors used mask when they dealt with infected patients. Staff have to wear gloves, lab coat, and mask when they are dealing with patients in laboratory. Radiology staff must wear TLD badges in the chest region to analyze the amount of radiation. Aprons and gonads were provided to staff for protection.

Due to the pandemic disease, employees were instructed to carefully deal with all the patients with all the precautionary measures, especially covid positive patients. Doctors took a decision to wear blue colour uniform with in the hospital during OP consultation and inpatient visiting time. Earlier they used uniform only in the operation theater. During peak time of corona, staff were instructed to wear coat, disposable gowns, gloves, mask, face

shield and hair caps. Now staff are not wearing any gowns. But PPE kits is used by staff who handle covid positive patients. Earlier causality staff wore PPE kits, but now they have only disposable gowns. After each procedure, staff were instructed to change their gloves, before they approach another patient. Hand washing becomes very strict and compulsory for all staff. Covid vaccine is provided to all staff at free of cost.

Covid positive staff are admitted in the hospital's covid ward or in their own house based on their physical condition. Hospital provides sufficient leaves till they become negative and again one week leave for home quarantine and all those leaves are without any pay.

There was some negative experience to staff from their supervisors. Radiologist Sereena shared her painful experience. "last month, my colleague became covid positive. Then all the staff in our section went for antigen test. But the response of my in-charge was really shocking. She scolded us when she got the information about our test. She might be scolded us due to her fear of staff shortage."

### **Separation**

One third of the staff belongs to nurses and hospital has high attrition rate in the nurse's category. Mostly staff left their job due to personal reasons such as marriage or pregnancy and better job opportunities.

Due to corona many junior doctors were forced quit the job. Because management asked them to take long leaves or posted them only in the covid ward. Some staff, especially female staff with small children were resigned due to family compassion due to the pandemic disease.

### **Impact of corona on patients in service delivery**

#### **Tangible factors**

Hospital management ensures social distancing between staff and patients at each transaction stage. Hospital have both fever clinic and corona clinic. Fever clinic is set up in front of the causality. When a patient reaches the hospital, the body temperature of both patient and bystander will be checked. If they have high temperature, they were directed towards fever clinic. If they have fever, they will be shifted to separate section in the causality to avoid interaction with others. Antigen test will be done for those people, and if they are covid positive they will be shifted to corona clinic and then to the corona ward. Corona clinic ensures a doctor service in day time. All the staff and doctor are equipped with PPE kits in Corona clinic.

Seating arrangement also modified to ensure social distancing. Patients and bystanders were allowed to sit on alternative chairs. Instructions related to covid is displayed in patient rooms, op consultation areas, diagnostic facilities and all the common areas. Flex boards related to corona virus and precautionary measures are displayed in OP consultation and causality areas. The patents volume decreased drastically due to their fear of hospital visit. So hospital provides online and offline consultation to the patients. Hospital has very clean area and there is no bad smell in the rooms and waiting area. Cleaning staff always sanitize all the areas of hospital many times in a day. Earlier it was twice in a day.

#### **Staff patient interaction and care**

Communication with patients or bystanders are inevitable. Staff are actually the intermediaries between patients and bystanders. But due to this situations, staff are hesitant to have proplonged interaction with patients. Staff give instruction to patients regarding the proper usage of mask and sanitizer. Patients have to wear face shield, mask and gloves when they enter into the hospital. Hand sanitizer is provided to each Inpatients. No bystanders were allowed in covid ward and hence staff have to be with patients for all their requirements.

#### **Accessibility of service**

Patients faced many challenges for doctor consultation initially. For the offline consultation patients have to take prior appointments through telephone booking. They have to give their

location details and physical condition to the reception staff over the phone. Patients from containment zone were not allowed to visit the hospital. They were forced to opt online consultation. Many patients were forced to postpone their surgeries and required periodical visits due to Corona. Patients can enter the hospital only after proper screening by the hospital staff. They have to give their personal details, address and travel history while entering the hospital. Body temperature will be measured and patients and bystanders will be sanitized by staff. Only one bystander is allowed in the hospital for each inpatient for their entire period in the hospital. It is quite difficult for the bystander also. No visitors are allowed in the hospital. Doctors inpatient visit is reduced to once in a day and the interaction time also reduced.

### **Affordability of services**

Covid period is a tough time for the private allopathic hospitals, if they are already in financial crisis. Decreased patient volume forced them to cut down the salary of staff. But still in order to meet their financial requirement they enhanced the cost of all the medical procedures and treatment. A patient Suja said "I was admitted due to covid in the hospital. Due to the criticality I was in the ICU and they charged 65000 Rs per day. My family shocked when they received the bill, and they struggled to make the huge payment at the time of discharge. But there was no other option".

Staff use separate PPE kits, gloves, mask, face shield and hair caps when they handle covid patients in each shift. The price of staff's protective measures also included in patient's bill. Hospital charged more than Rs2000 for covid test, which is very high compared to some other private hospitals.

### **Service delivery time**

Patients have a mix of opinions regarding service duration. Due to lesser patient volume, staff volume also decreased in each section. It increased the time taken for staff response. Staff approached patients with all the necessary precautions. It also increased the duration of expected service delivery. Patients have to spend more time in their hospital visits due to covid precautionary measures at the entrance.

### **Discussion of findings**

The article mainly discusses human resource management practices and delivery of services in the hospital in pre and post covid period. The hospital management and HR department were not in a position to attract highly skilled and talented staff during the pandemic period. The training programs were only limited to provide covid awareness. Even though the allocated staff strength was less, they worked in the hospital by ignoring all the chances of covid exposure. But those employees were not properly considered by the management. Because there were no monetary and non-monetary benefits for an year. Instead their salary was reduced to less than 50 % of their normal salary. Employee engagement programs are actually stress alleviators, but there were no such programs. But hospital could have conducted such programs in a minimum level by utilizing its large space to ensure proper social distancing. To manage the financial crisis due to reduced patient volume, management mainly targeted hospital staff and reduced salary all other employee benefits. Staff underwent mental stress due to their fear of corona virus exposure, job loss and very low salary. They could not interact with colleagues freely and their behavior became mechanized. Changes in shift timing also restricted them to mingle with their colleagues. Hospital provided all the protective measures initially, but they gradually reduced it due to its cost. It also affected the staff badly and enhanced the chances of their exposure to covid virus. Staff were not interested to wear protective equipment's. Because it restricts their casual and normal dealings with other staff and patients. But they were compelled to use everything due to this pandemic disease. It impacted their behavior and approach towards patients.

Corona severely affected the service recipients such as patients. Somehow, they try to avoid the chances of hospital visits. Most of them changed their mode of consultation to telephonic conversation or internet call. Continuous use of mask and lockdown reduced the probability of getting diseases like normal fever, cough, cold, digestive diseases etc. Patients and bystanders want to spend less time in the hospital. But it was not always possible due to less staff and covid precautionary measures. Patients lack friendly and long interaction with staff and they are not always available to staff. Patients lack proper care from the staff in all their requirements. Covid drastically increased the medical expense. Poor and middle class people severely affected because of the higher rate for all the procedures. Public healthcare facility is not sufficient to all the needy and they were forced to approach private hospitals.

### Conclusion

Effective execution of HRM practices is inevitable for employee and organizational performance. It enhances the employees to cope up with the challenging situations and survive the external environmental pressure. Covid pandemic is an unexpected external environmental factor to the industry. All the business organizations are trying to cope up with the challenge. As a healthcare provider, hospitals have significant role in controlling the disease and provide proper servicescape to both the service provider and service recipient. Fair treatment of employee lead to fair experience of customers. To conclude, the study focused on various human resource management practices of the hospital and its way of execution in the post covid period. Study also considered the service experience of patients while they are availing medical services. HRM practices have to be properly implemented even in the uncertain and difficult situations after making proper modification. Then only it can satisfy the requirement of both staff and patients.

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## CUSTOMER PERCEPTION TOWARDS E- BANKING SERVICES AFTER COVID19

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### ABSTRACT

The Indian banking sector embarked on the digital transformation journey a few years ago. While the initial objective may have been to counter the competition of new-age players, pushing banks to adopt digital technology. It is important not only to handle the COVID-19 crisis, but also prepare for post-crisis recovery. Since both urban and rural India have high mobile penetration and access to data, banks can look to expand digitally. Additionally, the present circumstances have increased familiarity with technology use among both bankers and customers. Banks can work with technology providers or create their own digital solutions to enable digital banking for their customers. The present paper focuses on Customer Perception towards E- banking Services after Covid-19.

### Introduction

The corona virus (COVID-19) outbreak has snowballed into a major global crisis causing immense personal and financial suffering for consumers, communities, and businesses. The banking industry, in addition to facing its own challenges, is expected to help customers in this hour of need. While banks have well-defined business continuity plans, they may be inadequate in handling a crisis of this scale and address the large number of varying challenges that emanate from the situation. RBI urges customers to use digital banking facilities amidst pandemic covid-19. Indian banks are already online with some core banking functions. They can target an entire transition by digitization of all their functions, processes and systems. Legacy Indian banks and financial institutions will also verify collaboration with the new entrants and Fin Tech.

### Recent Trends in Banking after Covid-19

Mobile wallets, on demand banking apps and the new trend of digital assistants like SIRI, ALEXA are at the forefront of mobile banking wave. Consumers who act as prime movers of innovation are increasingly demanding and want self-service, personalization, and immediate assistance.

- **Voice payments:** Voice commands are making waves with global consumers and by 2020 nearly one-third of browsing searches will be screen less. Consumer are highly conscious of security concerns, banks have already introduced voice recognition as one method for two-way authentication. Fin tech is providing access to private banking through applications like Alexa and Siri.
- **Detecting frauds using big data:** As banks and financial institutions grow their revenue and expand services they run into heightened risk. Another significant trend in mobile banking can help fin-tech businesses safeguard their resources and protect their customers' identity. The use of big data engines enables banks and financial institutions to improve risk assessment processes and jump ahead of the competition by providing streamlined customer experience while reducing the impact of fraud. With the help of big data, banks and financial institutions can extract and aggregate vast pools of customer data from a variety of sources, such as financial statements, mobile banking history, or even social media. This capability makes it possible for them to investigate every customer's historical behaviour, identify common patterns, and develop a holistic view of each account. Based on that analysis, predictive models of fraud detection can be developed, which will raise the red flag whenever some irregularities are detected.

- **Use of machine learning and chat bots to enhance customer service:** The ability to offer highly personalized real-time experience is becoming one of the critical differentiators for financial providers. The pressure to provide service to customers at a required time is high; despite this a staggering of 94% banks will fail to reach customers expectations. One of the best way to enhance user experience and loyalty is the usage of machine learning and chat bots. These chat bots use machine learning, predictive analytics, and cognitive communication to help consumers conduct every piece of financial transactions, from making payments and saving money to paying down debt. It's anticipated that a smart bots can make much better predictions and decisions than a bank clerk could, so look out for increased, deeper insights into consumer behaviour thanks to smart bots.
- **The use of card less ATM withdrawals:** Mobile banking trend is not entirely new, the increasing adoption of this solution by banks attests to its swelling popularity. First, credit and debit cards were pushed out by mobile wallets for online and in-store purchases; now, it's their turn to step down at ATMs. Depending on a bank or financial provider (you may use Google Pay or Apple Pay, for example), two ways are available to withdraw money: via an app-generated code or near-field communication (NFC). The first method involves validating transactions with a QR code displayed in your banking app. This mobile banking technology appeals to consumers with its speed and convenience. However, those two advantages aside, card less withdrawal can also help reduce cloned cards fraud, as even if an ATM has been tampered with; all your assets are safe with encrypted transactions.
- **Debt pay-offs will go up:** The next mobile banking trend offers a quick and easy way for consumers to get back on track with their finances. A range of mobile savings apps and repayment tools are available that help loan holders get hold of their debt fast. Round-up apps automatically round up a user's purchases to the nearest dollar and deposit the difference to their savings account or toward paying off debt, Other debt reduction solutions like Debt Payoff Assistant or Un debt, it helps users better manage debt by providing detailed spending breakdowns, tracking debt and interests, and suggesting the optimal, customized payoff strategies.
- **Open banking through mobile services:** Open Banking is a new standard for financial institutions that enables banks to share user data with third-party providers through the use of open application programming interfaces. By leveraging this concept, banks and financial institutions can build a network of financial services accessible from a single integrated point of control chosen by the consumer. Benefits include a more transparent view of one's finances, quick and direct payments, faster and more convenient credit reporting, and enhanced user experience.

### Objectives

- To study the impact of covid-19 on customers preference towards e banking
- To evaluate the customers perceptions towards E-banking services in India

### Research Methodology

The data required for this study is collected from both primary sources and secondary sources and this study takes up under descriptive method of research.

**Primary Data:** The primary data for the study is collected through the questionnaire with open ended and close ended questions.

**Secondary Data:** The secondary data for the study is collected from various sources like journals, magazines and websites.

**Sampling Design:** This study uses a descriptive research and the responses for the questionnaire has been recorded from 50 people using random sampling method.

**Customer Perception towards the Digital Payments before and after using various modes:**

Ten statements describing the usage of digital payments before and after have been framed. Likert's five point scaling technique has been applied to obtain the responses from the respondents. The scores are found out. Kruskal Wallis test has been used to analyse the Customer perception towards Digital Payments before and after under various modes. The null hypothesis framed is that there is no significant difference in Usage of Digital Payments before and after under Covid-19. Table 1 depicts the Customer perception towards the Digital Payments before and after COVID.

**Table 1**  
**Customer Perception towards the Digital Payments before and after Covid-19**

Various Modes of Using Digital Payments	Before Using digital payments		After Using digital payments	
	Score	Rank	Score	Rank
Online Ticket Booking	4769	13	5390	14
Online Bill Payment	2056	4	4512	11
Balance Enquiry	1094	2	572	1
Income Tax/TDS Payment	2144	6	2480	7
Service Tax/Central Excise	3010	8	4729	12
Insurance Premium Payment	2103	5	8006	19

Source: Primary data

$$\begin{aligned}
 &= 12/n(n+1) (\sum R_i^2/n_j) - 3 (n+1) \\
 &= 12/20(20+1)[(78^2/10)+(132^2/10) - 3 (20+1)] \\
 &= 12/20(21) (6084/10) + (17424/10) - 3 (21) \\
 &= 12 / 420 (608.4) + (1742.4) - 63 \\
 &= 0.028571 (2350.8) - 63 \\
 &= 67.1657 - 63 = 4.1657
 \end{aligned}$$

The calculated value of Kruskal Walis test = 4.1657

Degrees of freedom = 2-1 = 1

Table value = 3.84

As the calculated value (4.1657) is more than the table value (3.84), the null hypothesis is rejected. Hence, there is a significant difference in the Usage of Digital Payments before and after Covid-19.

### Conclusion

If we analyse the data most of the people are prefer Digital Payment for each and every need Keeping in view of current pandemic the consumers mostly preferring the online mode of shopping ,.The pandemic has affected the financial services industry in a number of ways.

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## INFLUENCE OF COVID 19 PANDEMIC ON THE STRESS AMONG THE SALES EXECUTIVES OF UNORGANIZED SECTOR

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### Abstract:

Despite the fact that unorganized sector plays an indispensable role in the Indian economy with regard to employment, a major proportion of the labour force is still neglected. The present study focuses on a particular section of unorganized sector, that is, the sales executives who are the most vulnerable due to the outbreak of the pandemic. The study intends to identify the stress level and various health issues of sales executives using structural equation modelling. The study culminates by suggesting several measures to be adopted by the management/employers to mitigate the impact of COVID-19 on the health of sales executives in unorganized sector.

**Keywords:** *Unorganized sector, COVID-19, Stress, Depression, SEM.*

### Introduction

The idea of the informal or unorganized sector began gaining global attention in the early 1970s, once the International Labour Organization highlighted the event's strategy that supports the economic process and employment, through its World Employment Missions in a South American country, Kenya, Sri Lanka and even the Philippines. The staff of the unorganized sector in India comprises the majority of the total male population in the country. Unorganized personnel in India face serious problems, from job insecurity to hazardous operating conditions. This is typically reflected in a great deal of stress among unorganized sector staff which can lead to various psychopathy. Therefore, in the developing economy of India, the unorganized sector plays a major role and needs special attention. As per the Unorganized Workers Social Security Act of 2008, an unorganized sector is defined as, " a company owned by individuals or self-employed workers engaged in the manufacture or sale of products or some form of service and employing fewer than 10 people in the company, while unorganized workers means a domestic worker, a self-employed worker or a wage worker in the unorganized sector and includes a worker in the organized sector who is not subject to any of the laws listed in Annex II of the Act". Unlike the organized sector, informal sector has no advantages and benefits of well framed rules and policies to protect the interests of workers. Even though this sector plays an indispensable role in the economy with regard to employment, a good proportion of the labour force is still a neglected lot. The present study focuses on one such segment of the unorganized workforce, i. e., Sales executives. Some of the problems being faced by the sales executives are that they lack job security and are unable to receive minimum wage. Long hours of working and target-based compensation adds to their stress and health related issues. The outbreak of the pandemic COVID-19 has added fuel to the fire. The sector most affected in India during the lockdown owing to the pandemic is the unorganized sector. In order to battle the pandemic India observed lockdown which led to the stagnation of the economy witnessing closed shops and other businesses. This has deeply impacted the mobility of unorganized workers and also their livelihoods. As per the Economic Survey reports of 2019, majority of Indian workforce was working in unorganized sector. This sector has an enormous impact on the country's

economic performance. However, there are still no concrete provisions to safeguard it and was hit hardest during the pandemic days (A. Verma,2020).

As a result, workers in the unorganized sector, especially sales executives who are already stressed by the goal-completion compensation system, have been subjected to more stress. Stress from any source can affect an employee's health and job performance. Causes of stress can include any occurrence or moments that an individual perceives as a threat to their coping strategies or resources. However, stress-related illnesses are the result of prolonged exposure to such events. Researches show that 85-90% of diseases can be related to stress in one way or the other. A worker belonging to the unorganized sector can experience mainly three types of stress, due to the very nature and structure of the unorganized sector, as follows:

- Financial stress: Financial stress has been referred to by researchers as economic stress, economic difficulties, economic tensions and economic coercion (Voydanoff, 1984).
- Physical stress: *Physical stress* is characterised as the pressure applied to an area of biological tissue (Tipler.PA,1982). When a person is under stress or anxiety, this system triggers into action, and physical symptoms will be apparent.
- Family and work-environment stress: This interconnection becomes even more appealing when experiences which are quite stressful in the workplace or at home disturb the equilibrium between these domains. Work-environment stress may be defined as the detrimental physical and emotional reactions that happen when the job requirements are not equivalent with the capacity, resources or desires and needs of the worker (AL-Hussami, 2008).

Researchers opine that these kinds of stresses lead to depletion of mind and body response in human beings. The idea that our mind and our intellectual tactics are influenced with the aid of the fitness of our bodies is insightful, convincing and core to many strategies to fitness and wellbeing. The most properly mounted instance of mind-body cooperation is the connection between stress and ill-health. (Renoir, T., Hasebe, K., & Gray, L,2013). Mental exhaustion is normally the end result of long-endured stress. Eventually, an individual with prolonged stress is found to end up in stipulations like depression and anxiety. Patients with depression often have elements of anxiety disorders, and those with nervousness issues oftentimes are found to have depression as well. (Tiller, J. W. ,2013)

### **Need and Significance of the study:**

People working in the unorganized sector dominate the Indian labour market and constitutes around ninety-four per cent of the aggregate group of workers in the nation and contributes nearly half the percentage of the total GDP. As per the reports published by National Crime Records Bureau (NCRB) in September 2020, roughly about 25% of deaths in the form of suicide in India, in 2019, have been accounted of people working in this sector. Going through the history of pandemics, followed by inevitable economic downturn with its knock-on outcomes, the nation is now anticipating a mental health crisis, with suicide- deaths as its most prominent indicator. The social and financial fissures revealed with the aid of the pandemic will lead the nation to mass unemployment, diminished social safeguarding nets, expansion in crimes based on gender, homelessness, drugs and alcohol addiction, loan defaults and a vast majority slipping into poverty. This will be a fertile breeding floor for an acceleration in persistent stress, anxiety, depression, alcohol dependence, and self-harm specially among the unorganized workers who are already vulnerable. An infinite number of workers have lost their jobs already, a large majority from the unorganized area and figure is probable to be even larger (Centre for Monitoring Indian Economy). Workers have gradually become desperate and hopeless particularly the sales executives who are haunted with targets.

Apart from losing their meagre income, the only options left before them are to encounter the threat contracting COVID-19 or deal with hunger or end up their lives. So, it is high time that the government or the concerned authorities intervene with an aim to relax and calm these class of workers during the pandemic days, especially the sales executives who are often fired off from their jobs for non-achievement of targets.

**Statement of the problem:**

COVID-19 has posed a number of challenges, which have put the sales executives working in unorganized sector into stress and trouble. Most of them suffer from financial stress, physical stress and stress in the family and work environment, which is likely to result in their body and mind depletion and push them into the dark room of depression and anxiety. Some of them even end up in life-threatening activities. During these days, sales executives undergo tremendous level of stress and pressure, as buyers' disapproval and silence become more apparent than usual. This can make it quite hard for the sales executives to remain motivated and optimistic. Even though working remotely provides significant work-life benefits, distracting attention can be common and staying focussed at work can be a challenge. Therefore, it is imperative to take a glance at the problems encountered during the time of this great pandemic and take necessary measures to overcome their issues and keep them motivated.

**Objective of the study:**

To evaluate the influence of COVID 19 pandemic related stress among the sales executives of unorganized sector.

**Hypotheses of the study:**

- 1)H0: there is no statistically significant relation between the stress levels and the depletion of mind and body response among employees.
- 2)H0: There is no statistically significant relation between the depletion of mind and body response and depression and anxiety among employees.

**Research Methodology:**

The rationale of the present analysis is to identify the stress level of the sales executives working in unorganized sector at Ernakulam district of Kerala. Thus, the primary data was collected from the sales executives of unorganized sector through a questionnaire directly administered by the researcher. Following was the measurement scale used in the study:

Measurement Scale: Depression Anxiety Stress scales (Lovibond & Lovibond, 1995), APR Financial Stress Scale (Heo, W., Cho, S. H., & Lee, P., 2020)

**Table 1.1**

**Measurement Scale**

<i>Variable name &amp; Source</i>	<i>Items to measure</i>
Financial Stress (Voydanoff,1984)	<p>1)I find it stressful to achieve the targets given by my superiors which affected my financial situation.</p> <p>2)Working from home and restricted mobility did not help me in achieving my targets.</p> <p>3)I found it difficult to meet my day-to-day household expenses and my financial situation started affecting my job performance.</p> <p>4)My sales opportunities would have increased if I had an opportunity to have a face-to-face communication with my clients, which in turn would raise my financial position by achieving targets.</p>

Family & Work-environment stress (AL-Hussami, 2008).	<p>1) I find it stressful, as my superiors pressurize me to complete the targets.</p> <p>2) The amount of time my job takes up as I am at home, makes it difficult to fulfil my family responsibilities.</p> <p>3) I often argue with my family/spouse as the demands of my family interfere with my work-related activities and I do not get a conducive working environment at home.</p> <p>4) My relation/rapport with my co-workers decreased.</p>
Physical Stress (Tipler.PA,1982)	<p>1) Due to restricted mobility, I find it difficult to canvass or build rapport with my clients which puts me in stress</p> <p>2) I feel irritable and pessimistic because of my work.</p> <p>3) Problems with my work cause me to have sleep issues, increased blood pressure, gastro-intestinal problems or headache, back pain etc.</p>
Depletion of mind & body response (Renoir, T., Hasebe, K., & Gray, L. ,2013)	<p>1) I experience fatigue quite often than before</p> <p>2) I become absent minded frequently and forget things most often than before.</p> <p>3) I feel my energy-level is not sufficient to fulfil my work.</p>
Depression & Anxiety (Tiller, J. W. ,2013).	<p>1) I feel dejected and less motivated, and feel like quitting my job.</p> <p>2) I am fearful and hopeless about my future.</p> <p>3) I feel like I am a worthless person with no meaning to my life.</p>

Source: Own elaboration

Cluster sampling method was done to collect the data. Since the exact population is unknown, the sample size was determined based on the formula:

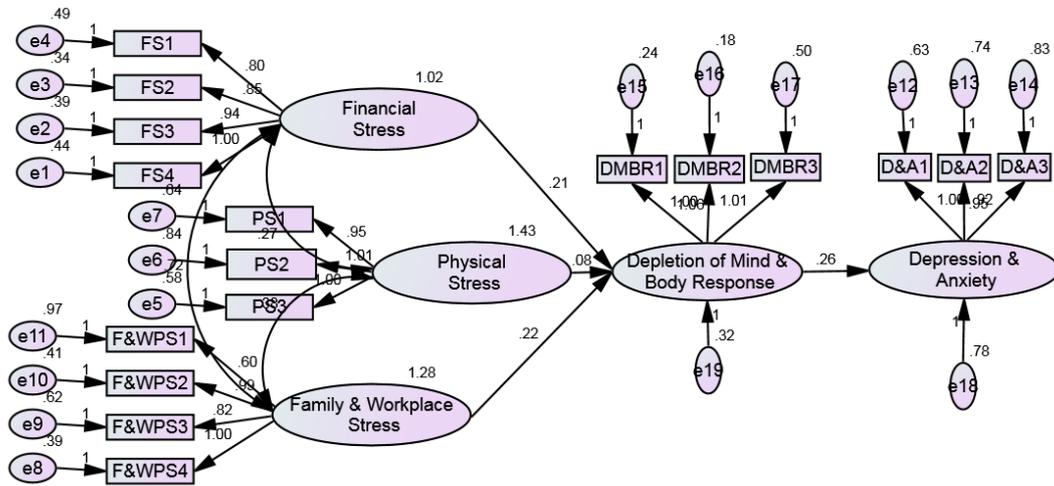
$$[Z*S/e]^2$$

Hence the total sample for the present study is 272. For the study the unorganized sector was identified and classified sales executives belonging to insurance, medical and automobile fields. In each sector equal representation has been given. The data for the present study was collected during the month of January, 2021. Structural Equation Modelling was done to examine the work stress level of the sales executives of the unorganized sector.

### Result and discussion

From the model summary, the Observed variables are 17 and the number of unobserved variables are 24. Number of exogenous variables includes 22 and the Number of endogenous variables 19. Thus, it is clear that, the total number of the variables in the model is 41.

**Figure 1.1**  
Stress level of executives in unorganized sector



**Table 1.2**  
Stress level of executives in unorganized sector

Relationship			Un- standardized Estimate	S.E.	C.R.	P	Standardized Estimate
Depletion of the mind and body response	<---	Financial stress	.206	.047	4.337	***	.287
Depletion of the mind and body response	<---	Physical stress	.084	.031	2.754	.006	.140
Depletion of the mind and body response	<---	Family & work place stress	.220	.043	5.107	***	.346
DEPRESSION & ANXIETY	<---	Depletion of the mind and body response	.260	.078	3.354	***	.207
FS4	<---	Financial stress	1.000				.834
FS3	<---	Financial stress	.941	.049	19.253	***	.836
FS2	<---	Financial stress	.848	.045	19.005	***	.828
FS1	<---	Financial stress	.799	.048	16.743	***	.754
PS3	<---	Physical stress	1.000				.844
PS2	<---	Physical stress	1.012	.061	16.726	***	.798
PS1	<---	Physical stress	.953	.056	17.042	***	.819
FWPS4	<---	Family & work place stress	1.000				.876
FWPS3	<---	Family & work place stress	.818	.046	17.841	***	.762
FWPS2	<---	Family & work	.987	.046	21.402	***	.868

Relationship			Un- standardized Estimate	S.E.	C.R.	P	Standardized Estimate
		place stress					
FWPS1	<---	Family & work place stress	.595	.050	11.950	***	.566
DA2	<---	Depression & anxiety	.948	.093	10.239	***	.706
DMBR2	<---	Depletion of the mind and body response	1.065	.059	18.132	***	.876
DA1	<---	Depression & anxiety	1.000				.751
DA3	<---	Depression & anxiety	.925	.091	10.158	***	.675
DMBR3	<---	Depletion of the mind and body response	1.006	.067	15.034	***	.715
DMBR1	<---	Depletion of the mind and body response	1.000				.829

Source: Primary data

According to the Standardized Estimate, the highest effect of the independent variable to the influence of the ‘Depletion of the mind and body response’ is Family & work (0.346), followed by Financial stress (0.287) and Physical stress (0.140), all the relations are statistically significant. 20.7% of the effect from the Depletion of the mind and body response influences the Depression & anxiety, the relation is statistically significant.

**Table 1.3**

**Stress level of executives in unorganized sector- Covariances**

Covariances			Estimate	S.E.	C.R.	P
Financial stress	<-->	Physical stress	.269	.071	3.774	***
Financial stress	<-->	Family & work place stress	.717	.079	9.091	***
Physical stress	<-->	Family & work place stress	.377	.081	4.656	***

Source: Primary data

The highest coefficient of Covariance is between the financial stress with the Family & work place stress, which is 71.7%, found statistically significant.

**Table 1.4**

**Stress level of executives in unorganized sector- Correlations**

Correlation			Estimate
Financial stress	<-->	Physical stress	.223
Financial stress	<-->	Family & work place stress	.628
Physical stress	<-->	Family & work place stress	.278

Source: Primary data

The highest coefficient of Correlation is between the financial stress with the Family & work place stress, which is 62.8%, found statistically significant.

**Table 1.5**  
**Stress level of executives in unorganized sector- Squared Multiple Correlations**

Squared Multiple Correlations	Estimate
Depletion of the mind and body response	.392
Depression & anxiety	.043
Dmbr3	.511
Dmbr2	.767
Dmbr1	.687
Da3	.455
Da2	.499
Da1	.564
Fwps1	.320
Fwps2	.753
Fwps3	.580
Fwps4	.767
Ps1	.671
Ps2	.637
Ps3	.713
Fs1	.568
Fs2	.685
Fs3	.699
FS4	.695

Source: Primary data

All most all Squared Multiple Correlation values are higher in the present model. This shows the prediction accuracy. The prediction accuracy of the Depletion of the mind and body response is 39.2% and for the Depression & anxiety, the figure is 4.3%, found low value in the group.

**Table 1.6**  
**Stress level of executives in unorganized sector-Model Fit Summary**

Indices	Value	Suggested value
Chi-square value	163.70 6	-
DF	112	-
P value	0.001	> 0.05 (Hair et al., 1998)
Chi-square value/DF	1.462	< 5.00 (Hair et al., 1998)
GFI	0.956	> 0.90 (Hu and Bentler, 1999)
AGFI	0.940	> 0.90 (Hair et al. 2006)
NFI	0.953	> 0.90 (Hu and Bentler, 1999)
CFI	0.985	> 0.90 (Daire et al., 2008)
RMR	0.045	< 0.08 (Hair et al. 2006)
RMSEA	0.034	< 0.08 (Hair et al. 2006)

Source: Primary data

From the above table it is found that the calculated P value is 0.001 which is lower than 0.05. Also, the Chi-square value/DF is 1.462, which found in the threshold limit. Here Goodness of Fit Index (GFI) value (0.956) and Adjusted Goodness of Fit Index (AGFI) value (0.940) is greater than 0.9 which represent it is a good fit. The calculated Normed Fit Index (NFI) value (0.953) and Comparative Fit Index (CFI) value (0.985) indicates that it is a perfectly fit and also it is found that Root Mean Square Error of Approximation (RMSEA) value is 0.034, which is less than 0.08 which indicated it is perfectly fit. Root Mean Residuals (RMR) is 0.045. Thus, it is clear that, the statements confirming the Stress level of executives in unorganized sector is accepted.

### Conclusion:

The outbreak of the pandemic has undoubtedly lifted the stress level of workers belonging to unorganized sectors especially the sales executives. This causes several health-related problems in them dwindling down their performance and productivity. Underpinning this fact, with an aim to curb this situation the companies should reassure their employees about their salaries, job, future etc: and those in leadership roles must ensure the mental wellbeing of their employees through workshops, training programmes etc: rather than focussing on target completion and deadlines. Employees with serious health issues must be red-flagged and for their revival management should provide online work places which are mind positive. Apart from this an in-house counselling service should be given by the management to reinstate their happiness and mental well-being. Moreover, studies show that a fixed work routine can improve the health and productivity of employees so management have to frame a well-designed work schedule with a fixed duration, so that employees can achieve equilibrium between work and personal life. Besides companies can take initiatives to conduct online yoga classes or any activities that promotes a camaraderie among employees and employers.

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**CONQUERING THE ORGANIZATIONAL CHALLENGES OF COVID -19**

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**Abstract**

The impact of the pandemic and its consequences are felt differently subject to our status as individuals and as members of society. Although some try to adapt to working online, homeschooling their children and ordering food via instacart, and others have no choice but to be sensitive to the virus while keeping society functioning. COVID-19 emerged from Wuhan; China has caused a powerful impact on almost every society of the earth. Due to the problems caused by this public health crisis all over the world, the World Health Organisation (WHO) has declared it as a global pandemic. Also, the lockdown has been realized as the only method to control the spread of the pandemic and almost every country has adopted this method. Amidst the lockdown in Indian society, multiple issues related to social, educational, agricultural, economical, political, psychological levels and many more have been noticed which has created the disastrous impact on the lives of the people. Besides serious implications for people's health corona virus is significantly impacting businesses and the economy. As the Covid19 pandemic continues to evolve there has never been a more pressing need for organizations to review and revamp their business for a changed world. In response to the global outbreak, this article focus organizations efforts on supporting key areas of their businesses that will help them mobilise, stabilize in the new environment and strategise for what's next.

Key words: *Organizations, Challenges, Strategies, Covid 19*

**Introduction**

The COVID-19 pandemic has led to a dramatic loss of human life worldwide and presents an unusual challenge to public health, food systems and therefore the world of labour. Millions of enterprises face an existential threat. Nearly half the world's 3.3 billion global workforce are in danger of losing their livelihoods. Informal economy workers are particularly vulnerable because the majorities lack social protection and access to quality health care and have lost access to productive assets. Without the means to earn an income during lockdowns, the people are unable to feed themselves and their families. Adhering to workplace safety and health practices and ensuring access to decent work and therefore the protection of labour rights altogether industries are going to be crucial in addressing the human dimension of the crisis. Immediate and purposeful action to save lots of lives and livelihoods should include extending social protection towards universal health coverage and income support for those most affected. In designing and implementing suitable measures it is essential that governments work closely with employers and workers. Covid-19 global health crisis is dubious and evolving quickly, and businesses worldwide are scrambling to manage the impact not only on people but also on their future. In addition to normal transformation programs, organizations are generally on top of things of the timeframe, but Covid-19 is forcing transformation, with the spread of the disease setting the timeline and driving the agenda. The global and interconnected nature of today's business environment poses serious risk of disruption of worldwide supply chains which will end in significant loss of revenue and adversely impact global economies. However, the pandemic has already negatively impacted the worldwide economy as an entire. It is a serious wake-up call for supply chain professionals and companies with global operations to develop several alternate sourcing and manufacturing plants in different regions of the world to mitigate the risk from such adverse conditions.

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## Review of Literature

- Zhu et al. (2020), the first pneumonia case was discovered on December 8, 2019 in a wet market in Wuhan, the capital city of Hubei Province of China. Afterwards, several clusters of patients with such pneumonia were reported throughout late December 2019.
- Briscese et al. (2020) model the impact of “lockdown extension” on compliance using a representative sample of residents from Italy. According to the authors, if a given hypothetical extension is shorter than expected (i.e. a positive surprise), the residents are more willing to increase self-isolation. Therefore, to ensure compliance, they suggest that it is imperative for the government/local authorities to work on communication and to manage peoples’ expectations.
- Plausible Mechanisms to understand the potential negative economic impact of COVID-19, it is important to understand the economic transmission channels through which the shocks will adversely affect the economy. According to Carlsson-Szlezak et al. (2020a) and Carlsson-Szlezak et al. (2020b), there are three main transmission channels. The first is the direct impact, which is related to the reduced consumption of goods and services. Prolonged lengths of the pandemic and the social distancing measures might reduce consumer confidence by keeping consumers at home, wary of discretionary spending and pessimistic about the long-term economic prospects. The second one is the indirect impact working through financial market shocks and their effects on the real economy. Household wealth will likely fall, savings will increase, and consumption spending will decrease further. The third consists of supply-side disruptions; as COVID-19 keeps production halted, it will negatively impact supply chains, labor demand, and employment, leading to prolonged periods of lay-offs and rising unemployment.
- Baldwin (2020) finds that the expectation shock by which there is a “wait-and-see” attitude adopted by economic agents. The author argues that this is common during economic climates characterized by uncertainties, as there is less confidence in markets and economic transactions. Ultimately, the intensity of the shock is determined by the underlying epidemiological properties of COVID-19, consumer and firm behavior in the face of adversity, and public policy responses.
- Gourinchas (2020) summarizes the effect on the economy by stating: “A modern economy is a complex web of interconnected parties: employees, firms, suppliers, consumers, and financial intermediaries. Everyone is someone else’s employee, customer, lender, etc.” Due to the very high degrees of inter-connectiveness and specialization of productive activities, a breakdown in the supply chains and the circular flows will have a cascading effect.
- Baldwin (2020) describes the impact of COVID-19 on the flows of income in the economy. First, households do not get paid and hence reduce their consumption and savings levels. The decrease in savings reduces investment and hence ultimately diminishes the capital stock. Second, households reduce their demand for imports, which in turn reduces income for the rest of the World, and hence the country’s exports decrease. Third, the demand/supply shocks cause disruption in domestic and international supply chains. Fourth, all of the previous shocks and disruptions lead to a fall in output – causing reductions in the usage of the factors of production. In this

case, labor is more affected than capital through reduced working hours or layoffs and hence lower earnings.

### **Objective of the Study**

- To focus organizations efforts on supporting key areas of the business that will help them to mobilise, stabilize in the new environment and suggest strategies to conquer the challenges of Covid 19.

### **Research Methodology**

The study is based on secondary data. Descriptive study has been conducted based on the literature drawn from the domains of Economic and financial impacts of Covid19. Sources include online journals, articles, Newspaper and websites. All suggestions are based on secondary data.

### **Organisational Challenges and Strategies**

*The current Covid-19 global health crisis is unpredictable and evolving quickly, and businesses worldwide are scrambling to manage the impact not only on people but also on their future. With normal transformation programs, firms are generally in control of the timeframe, but Covid-19 is forcing transformation, with the spread of the disease setting the timeline and driving the agenda. The organizations should focus the major area on business and try to mobilize, stabilize in the new environment and to manage this pandemic effectively. The five key areas are listed below:*

- 1. Crisis Management and Response**
- 2. Workforce.**
- 3. Operations and Supply Chain.**
- 4. Finance and Liquidity.**
- 5. Strategy and Brand.**

#### **1. Crisis response and Management**

A crisis management plan (CMP) indicates how to respond to a critical situation that would negatively affect an organization's profitability, reputation or ability to operate. CMPs are used by business continuity teams, crisis management teams, damage assessment teams, and emergency management teams to avoid or minimize damage, and to give direction on staffing, resources and communications. In an age of the coronavirus pandemic, organizations should have a "when, not if" mentality regarding crisis management planning and should form a plan as if an incident will happen. It's important to be proactive, rather than reactive.

#### **The importance of a crisis communication strategy**

Communication is a key to getting through a crisis because it keeps all the necessary players, ranging from a single office to a global audience, informed. As the crisis progress and develops the organization should update its communications. An organization should designate a crisis communications team. All communications should be clear, concise and truthful. For the sake of speed, an organization could proactively draw up a template with potential scenarios, designate the appropriate channels for communication and then plug in the necessary information if the actual incident occurs.

#### **Testing and updating management plan**

Once completed, the crisis management plan needs to remain a living document. That means distributing it to employees, implementing training and testing, and updating the CMP on a regular basis. Training programs should be held so everyone knows their role. Testing ranges from table top exercises to full simulations. After a test or post-crisis, it's important to review the results, discuss what worked and what didn't work, and make any necessary changes to the plan.

#### **Standards**

Standards are good tools for an organization to improve its crisis management planning and help them to manage disruptions to the business and enable resiliency. The standard offers guidance to help management plan, establish, operate, maintain and improve their organization's crisis management capability, and is relevant to any size or type of organization.( BSI). The standard includes sections on crisis leadership, crisis decision-making crisiscommunication and on crisis management core concepts and principles..

### **Emergency response planning**

It is important for disaster management to have a well-defined emergency response plan.As part of emergency preparedness, an organization conducts a risk assessment to determine potential threats. The organization then develops the emergency response plan to protect its employees and other affected parties in the event of an incident. Safety and stabilization are keys in an emergency.

### **2.Building the workforce of the future**

The major five workforce areas are emerging as priorities for business leaders.

- **Ensure safety of employees:** During this challenging time, the job security of our employees is of utmost importance. Employees may face different health risks counting on the sort of labor they are doing, where they are doing it and their own health status. Organisations face challenges in supporting different populations of workers and ensuring fairness across the entire workforce. For those that still got to physically report back to work, organisations are encouraged to watch their employees' health. Other measures to be taken can include ensuring distancing, increased hygiene and providing protective clothing. Moreover, during this period it is also important that each one crucial contact information, including emergency contact information of all employees is updated.
- **Contingency plans for critical roles:** With the likelihood of employees falling ill, or not having the ability to hold out their duties for variety of things, it's extremely important that contingency plans are put in place for all critical roles. Firstly, organisations got to identify these roles, determine the talents needed to fulfil these positions, and establish who can replace these key individuals. In order to mitigate the loss of any critical roles, you'll got to identify any skills gaps, accelerate training of candidates and/or search externally for suitable replacement candidates.
- **Split team arrangements:** A way to mitigate the unnecessary spreading of the virus and to make sure business continuity is to separate teams. If one person within a team is infected, the remainder will presumably be put into quarantine meaning they're going to not be ready to work (if their position does not allow for remote working). A way to avoid this could be through physical segregation of teams, an example is having teams working different shifts of days. This could apply to staff working in a warehouse or construction workers working at the same site.
- **Flexible work arrangements:** In order to make sure minimal contact between employees, also as between employees and customers, suppliers, and other stakeholders, flexible work arrangements should be considered. Staff that aren't required to be within the office, remote working should be enabled. If this is often impossible imminently, we propose splitting of teams as previously

stated so as to avoid mass spread. This measure will not only eliminate unnecessary onsite personnel from being in touch with each other, but also eases the challenges being faced with working parents due to school closures for the year. Considering a reduced work week, reduced hours per day, or compressed work schedule could be other options to support employees, whilst helping to reduce redundancies and help manage increased demand in services later in the year.

- **Communicate effectively:** Communication continues to be paramount when navigating through this crisis. It is of utmost importance that business leaders still update their staffs on any and every one change that happen. Information is wealth at a time like this. With the need for support from all their employees in order to navigate through this crisis, it is crucial that management is transparent about what decisions are being taken and expectations of all employees throughout this trying time. However, beyond ensuring that management communicates about what's unfolding internally, we also suggest communicating about measures being advised by our national health authorities like social distancing, increased hygiene, etc.

### 3. Supply chain and Operations Maintain business continuity.

Businesses must navigate the financial and operational challenges of coronavirus while rapidly addressing the requirements of their people, customers and suppliers. By taking the right actions, supply chain leaders can turn massive complexity and supply chain disruption into meaningful change. As they respond to both the immediate impacts of the pandemic and prepare for what comes next, a continuous cycle of risk mobilizing, sensing, analysis, configuration, and operation will help to optimize results and mitigate risks. The COVID-19 pandemic is not a short-term crisis. It has long-lasting implications for how people work and the way supply chains function. There is a pressing need for businesses to create long-term resilience in their value chains for managing future challenges. This requires comprehensive approaches to manage the supply chain. Companies must integrate sufficient flexibility to guard against future disruptions. They should also consider developing a robust framework that includes a responsive and resilient risk management operations capability. That competence should be technology-led, leveraging platforms that support applied analytics, artificial intelligence and machine learning. It should also check end-to-end transparency across the supply chain. In the long-term, risk response need to become an integral part of business-as-usual protocols.

#### Five actions to build agility now and in the future

1. **Understand the impact of demand disruptions** - rapidly identify the products that are most critical for stabilization and growth, shore up associated supply chains, and reconcile critical skills to meet near term and future demand.
2. **Ensure manufacturing ecosystem viability** - understand the implications of COVID-19 and contract provisions for each critical ecosystem player, including material suppliers, contractor companies, co-manufacturers and logistics providers.
3. **Rebalance physical production network assets** - make fast and accurate decisions on the capital investment and effort required to redeploy underutilized assets or build greater flexibility in current assets in the short term, ensuring those decisions do not inhibit future growth.
4. **Manage workforce safety and flexibility** – keep the trust of workforces' by addressing not only their physical safety but also their mental well-being and need to stay connected with coworkers. Strategize for transparent communications with customers, external stakeholders and employees.

5. **Leverage digital capabilities** - manufacturers with digital platforms, accessible data and advanced analytical capabilities will be able to respond more quickly, accurately and successfully to COVID-19 disruptions.

#### 4. **Financial liquidity and risk planning for present and future.**

As business activities slow some organizations are seeing lower revenue resulting in less cashflow. During the economic uncertainty, managing cash and liquidity positions may be crucial in the weeks ahead. During this situation, it is absolutely essential for businesses to plan for the present and the future. Complex business environments warrant more meticulous assessments of financial risks and planning using many different possibilities.

1. **Income and forecasting models:** Companies should evaluate the impact on their cash flows through a radical review of their credit lines, debtors and creditors.

2. **Simulations and scenario analysis:** It is essential to line milestones at which different levels of measures are often planned by organisations. They have to think about various scenarios from optimistic to pessimistic and understand the impact of an equivalent on the financial models developed.

3. **Market volatility management:** All financial exposures of a business also as important investment decisions should be revalidated and retimed supported the simulations, scenario analysis and forecasting models.

4. **Prioritise cash flows:** Companies got to judiciously allocate its existing resources into achieving missioncritical outcomes.

5. **Cutting the tail:** Reduce the quantity of external credit needed and maximise the credit available from within an organisation. Instill a discipline of monetary challenge to prioritise the cash flows appropriately.

#### 5. **Strategy and Brand**

As Organizations move from reacting to mitigating the impact of the outbreak, strategies to emerge stronger may come in focus. Consider accelerating digital transformations as the shift to remote working reveals gaps in IT infrastructure, workforce planning and digital upskilling. Protect growth and profitability through actions like scenario planning more frequent financial, modeling exercises to enhance resiliency, and new models that incorporate economic impacts of past pandemics. Business should not look the same after Covid – brands should recognise that purpose creates distinctiveness and can be the key to future growth. The following strategies help the organizations to emerge stronger in this pandemic.

- Show empathy
- Adapt your communication accordingly on social media
- Move your brand online
- Integrate an omnichannel approach into your strategy
- Bring your community together
- Support your industry and community
- Gain the trust and the loyalty of your audience
- Never stop communicating and be ready for the rebound
- Be where your customers are
- Connect the right audiences with the relevant message.

## CONCLUSION

Despite the present crisis, organizations have the power to make their people feel potent and deliver a transformational culture that can adapt and thrive not just when we get back to the 'new normal', but in any further uncertain times the future holds. To conclude, from a purely business perspective COVID-19 presents a slew of serious and sometimes unprecedented

challenges for organizations cutting across the business environment, including a possible liquidity crunch, global supply chain disruptions, increase in trade barriers, and a shifting consumer mindset. However, the post-COVID world will see digital technologies playing a critical enabling-role in delivering improvements throughout the breadth of businesses, including more resilient supply chains, significantly enhanced user-experiences, and intelligent optimized processes to deliver business outcomes.

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**PANDEMIC IMPACT & SOLUTIONS –MANAGING HEALTHCARE  
INFORMATION TECHNOLOGY**

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**Abstract**

Technology in healthcare has been in its transformational phase for the last two decades, but the same was pushed quickly due to the rise of the covid-19 pandemic. It can be seen that the technologies which could have been taken another 10 more years to get implemented, was put in place urgently due to the change in conventional patterns in people's movement and connectivity. The authors would like to brief some of the healthcare technologies which came up and sustained through this period, and which could continue in the future even if life is back into normal. Adoptability of the clinical/non-clinical fraternity on these new technologies should be applauded with great pleasure, as this was the concern at all times in the Healthcare IT world.

**Key words:** Electronic Medical Records, Electronic Health Records, Internet of Things, Healthcare Information Management System, Echo Cardio Gram, Oxygen Saturation

**Introduction**

Technologies can be useful for minimising the severity of the corona virus impact on people, organizations, and health care solutions. However, the use of technologies to overcome the pandemic based challenges such as security, privacy. This paper evaluates the technology applications based on the data-people-system framework and suggests that the specific nature of the COVID-19 pandemic requires strong coordination for connected data among, people, and systems in health care industry to facilitate worldwide collaboration.

**Tele-Consultations**

A consultation methodology that wasn't even thought out or accepted by the world before the pandemic. People always believed in direct doctor consultation which only given them the comfort level of communicating to a doctor in person and feeling his support. When the people were forced to sit at home and medical practitioners were out of reach, many organizations started teleconsultations, which eventually changed like a regular practice today.

**Platform independent Teleconsultation**

When the requirement hit immediately, the Healthcare IT world recognized that there are very few well-built solutions for providing teleconsultations to people. Many of them started the process using globally accepted video platforms such as skype, zoom, and teams which were built in for serving another purpose. Due functionally it did its job, there was a gap in the process such as scheduling, intimating, and monitoring. Later on many of the healthcare IT software solutions came up with proper video solutions integrated with the existing HIMS software and the same are accepted worldwide currently. This was a game-changer.

**Device Assisted Teleconsultation.**

Even though the above-mentioned teleconsultation did its job partially, still the common man's need wasn't fully addressed. This is because of the lack of proper technology add-ons in the patient end which couldn't convey any of the medical conditions to the doctor except a normal video of them. Here came the role of device-assisted teleconsultations, which would transmit the patient vitals, videos, and parameters such as ECG, SPO2, etc. This was widely

accepted, but due to the cost of the devices, this couldn't scale up to homes of the patients, but restricted to some of the spokes/clinics of some major hospitals in the remote areas.

Although the concept and technology were adequate to replicate the physical consultation, this hasn't got the wider adoption due to the increased cost of devices, setup, and other portability issues.

### **Tele - Medicine**

Telemedicine is an extended version of device-assisted teleconsultations, which enables the patient to broadcast his clinical records to consulting physician. This is normally carried out from facility to facility for expert opinion, follow-up visits, surgery follow-ups, chronic disease management, etc. Remote areas with the country have been enabled with expert medical care using this methodology and have proven records in the remote villages in India.

Preventive healthcare support is one widely accepted usage of telemedicine, as it supports people to take support and be successful in leading a healthy lifestyle. Privacy in telemedicine was a concern to the people all the time, hence the solution providers have built-in robust solutions to ensure patient privacy and security of data with modern technology implementations.

### **Patient Wearable Integration.**

Even though all the above technologies were in place, there was a challenge in terminally ill or monitoring required patients, as none of these technologies were able to track and monitor the patient parameters in regular intervals and consolidate them into an analyzable format. Here comes the importance of wearable health devices which are popular now among a huge population worldwide. This has been integrated into real-time patient information, for the caregivers to analyze. Each of these wearable device companies owns huge personal health records, but it is a challenge to correlate these data concerning the patient identity and hospital policies on data collection.

However wearable data is broadcasted/retrieved and interfaced to a usable format to the HIMS solutions that are easily interpreted by clinicians in EMR so that the patient would be assisted in any of the abnormal clinical conditions as identified from the wearable data. As an example, this can monitor hundreds of patients in its cardiac rehab program using consumer devices.

### **Tele - ICU**

Many of the countries have a huge shortage of intensive patient care, which is a critical area of the patient support. This is due to the lack of proper intensive care infrastructure, lack of highly skilled intensivists, etc. A solution to this was accepted widely during the pandemic era, as briefed below.

Tele-ICU solutions, wherein the expert intensivists of a territory care hospital can monitor beds of other ICU beds using technology. Even if the infrastructure of the recipient clinic is not adequate too, the same can be made visible to the hub hospital with connectivity and some basic devices at the recipient end. Territory hospitals setup command centers to have full-time monitoring of these beds in real-time, and communicate instructions to the recipient facility. This made a huge transformation in increasing the ICU beds in remote undeveloped hospitals, with the best care provided to the patients.

### **Tele-Surgery**

Tele surgery is another evolved technology by which the surgeries could be aided in remote areas by the expertise of doctors in the larger healthcare facilities. This is achieved through some software solutions wherein the remote doctors can view the surgery live and provide instructions as and when required. This increased the expertise of the clinicians and enabled them to carry out complex surgical cases in remote locations, which proper aids. Connectivity is the only dependency to implement this technology, and that is available across the world nowadays. There are many known and robust solutions in this space that are widely implemented in many healthcare facilities in many countries.

### **Increasing Cloud Infrastructure**

Healthcare facilities have started to move to the cloud to cater to various IT implementations. Due to the huge data growth and volume and scalability challenges, hosting a HIMS in-house has challenges considering infrastructure and storage costs and also the portability of data.

Most of the HIMS products have been migrated to cloud-based technologies to ensure that the cloud strategies of organizations are taken care of and the same is accessible to the right patients through proper security measures. This also gives the organizations the flexibility of accessing the information platform-independent and also outside their fixed workdesk.

### **Patient connects through Mobile Apps.**

Usage of Mobile apps was one of the increased patterns in the internet space, due to more people adopting smart devices in their personal space. The Healthcare world also exploited this opportunity, to built native mobile apps for their hospital, which would enable patients to get the doctor schedules, services, teleconsultations, and clinical records. This is well accepted by the regular patients of a hospital, as the information is available anytime with them.

Initially, hospitals used to depend on the common platform apps, which would cater to multiple doctors across different facilities in a city, but due to the loss in focus to the specific brand, this has been moved into native mobile apps of their hospitals.

### **EHR optimization and accessibility**

EHR optimization is a process of refining EHR to serve care-providers own requirements and lead to focus on clinical productivity and efficiency. This includes access of the records to patients anywhere as a portable health record digitally. Major areas are

- Reduce information overload in clinical notes.
- Specialized clinical workflows
- Health IT tools to improve usability.
- Involve nursing informatics.
- Integrate pump device data to EHR

### **IoT in healthcare**

IoT devices have made remote monitoring of patients in the healthcare sector possible and increased patient engagement, security, and experience to a larger extent.

*IoT for Patients-* Wearable devices allow monitoring and reminding of attention required parameters, of patients who stay at home and not able to continue at hospitals for long times.

*IoT for Physicians -* Wearables and home monitoring equipment embedded with IoT, physicians can track patient health effectively and also raise alarms in case of any major fluctuations in patient parameters. This enables clinicians to manage more volume of patients remotely and in a structured manner.

*IoT for Hospital-* Apart from monitoring patient health, hospitals can track real-time location and utilization of medical equipment like oxygen, ventilator, nebulizers, Infection control,

critical value alerts of preserving methodologies, etc. Asset management is a major concern for hospitals when it comes to biomedical devices which are small in size and huge in numbers. IoT helps administration to track the location of devices, intimate loss, or scrapping of the same and enables operations with better control in ensuring patient security and care.

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## COVID 19 – OPPERTUNITIS AND CHALLENGES OF INDIAN BANKING SECTOR

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### ABSTRACT

Banking sector is one of the important service sectors in India; they provide financial services and assistance to people and co-operations. Banking sector plays a significant role in the economic development of a country. India's banking sector is sufficiently capitalized and well-regulated. The financial and economic conditions in the country are far superior to any other country in the world. Credit, market and liquidity risk studies suggest that Indian banks are generally resilient and have survived the global recession well (RBI, 2020). COVID-19 has emerged as the black swan event of the century, with significant macroeconomic impact both globally and in India. It is undoubtedly one of the biggest global crises of our life time, presenting unprecedented challenges to many industries, government and general public all over the world. COVID -19 created long-lasting impact on many industries including banks. As far as concerned with banking sector COVID-19 presented opportunities and challenges also. Customer services and advices are more digitalized but the revenue of banking sector fall sharply during the COVID -19. In this context the present study aims to describe the opportunities and challenges faced by Indian banking sector during the COVID – 19. The study is descriptive in nature based on secondary data.

Key words: *COVID-19, Banking Sector, Opportunities, Challenges*

### INTRODUCTION

COVID -19 pandemic situations is one of the biggest global crises faced by all countries. This pandemic situation presented challenges to many industries, government and people all over the world. Their impacts toward many sectors are far reaching. Besides the challenges some industries get an opportunity to flourish their business in this situation. In case of financial institutions, they get an opportunity to help their customers and businesses weather the economic downturn and navigate the current situation. One of the important problems faced by Indian banking sector is the lack of staff to provide financial services on time. So, the banks in India have focused on maintaining critical staff at branches and temporarily diverted staff to manage online or phone enquiries from customers. They have also installed mobile ATMs and executed doorstep banking for senior citizens and other customers that need additional attention. We expect financial firms to implement advanced video collaboration tools, new chat and messaging software, other innovative technique used to interact with customers who have been coping with social distancing rile, and also use common consumer apps. Many of the banks in India have made investments in technology and digital transformation. But a lot of them, however, are still heavily reliant on face to face interactions for bank dealings. COVID 19 crated an extended impact in banking sector, and the effect reflected every part of oureconomy. The main challenge faced by banks in this situation is protection of staff and providing much needed services to staff.

Cautioning of imminent stress in the [banking sector](#) after unwinding of the measures taken to combat the impact of COVID-19, the Reserve Bank on Tuesday said banks will need to adapt and adjust themselves to meet the upcoming challenges.Observing that banking soundness indicators are obscured under the asset quality standstill, it said, banks are raising capital in preparation of the imminent stress."With the moratorium coming to an end, the deadline for restructuring proposals is fast approaching and with the possible lifting of the asset quality

standstill, banks' financials are likely to be impacted in terms of asset quality and future income.

### OBJECTIVE OF THE STUDY

1. To identify the opportunities of Indian banking sector due to COVID 19 pandemic situation
2. To identify the challenges faced by Indian banking sector as a result of COVID 19 pandemic situation.

### METHODOLOGY

The study is based on descriptive data

### COVID 19 AND BANKING SECTOR

COVID-19 has led to significant structural and behavioral changes in the form of social distancing, drive for economic rejuvenation, and increasing regulatory and government interventions. These changes, such as disruptions to physical operations, impact on asset quality and liquidity, and demand pressure on digital channels, have posed challenges to financial institutions across key functions. This paper elaborates on the fact that protecting existing business and driving profitable growth in a post-COVID-19 world requires initiatives across multiple dimensions:

- Goals and aspirations
- Where to play
- How to win
- Assets and capabilities

### Covid - 19: Opportunities of banking sector in India

1. The gross non-performing assets (GNPAs) ratio of scheduled commercial [banks](#) declined from 9.1 per cent at end-March 2019 to 8.2 per cent at end-March 2020 and further to 7.5 per cent at end-September ([Reserve Bank of India](#), 2020).
2. The capital to risk-weighted assets ratio (CRAR) strengthened from 14.3 per cent at end-March 2019 to 14.7 per cent at end-March 2020 and further to 15.8 per cent at end-September 2020, (Report submitted to the Ministry of Finance 2020). This was partly aided by recapitalization of public sector [banks](#) and capital rising from the market by both public and private sector [banks](#).
3. The RBI said net profits of banks turned around in 2019-20 after losses in the previous two years. In H1:2020-21, their financial performance was shored up by the moratorium, standstill in asset classification and ploughing back of dividends. The central bank said it undertook an array of policy measures to mitigate the effects of Covid-19. Its regulatory ambit was reinforced by legislative amendments, giving it greater powers over cooperative banks, non-banking financial companies (NBFCs) and housing finance companies (HFCs).
4. It also undertook a series of initiatives to bolster its supervisory framework. The recovery process gained traction with the resolution of large accounts through the Insolvency and Bankruptcy Code.
5. The Securitisation and Reconstruction of Financial Assets and Enforcement of Securities Interest Act 2002 (SARFAESI) channel also aided the process of recovery.
6. Balance sheet growth of urban cooperative banks moderated in 2019-20 on lower deposit accretion and muted expansion in credit. While their asset quality deteriorated, increased provisioning resulted in net losses. The

performance of state cooperative banks improved -- both in terms of profitability and asset quality.

7. The consolidated balance sheet of NBFCs decelerated in 2019-20 due to near stagnant growth in loans and advances although some improvement became visible in H1:2020-21. Notwithstanding a marginal deterioration in asset quality, the NBFC sector remains resilient with strong capital buffers.

### **Covid – 19:Challenges of Co-Operative Bank**

The COVID-19 pandemic could be one of the most serious challenges faced by the financial services industry in nearly a century. The COVID-19 impact on banking will be severe fall in demand, lower incomes, and production shutdowns and will adversely affect the business of banks. The situation is exacerbated by staff shortages, inadequate digital maturity, and pressure on the existing infrastructure as firms scramble to deal with the impact of COVID-19 on financial services. Banks certainly have their hands full in light of the novel coronavirus outbreak COVID-19. Borrowers and businesses face job losses, slowed sales, and declining profits as the virus continues to spread around the world. Banking customers are likely to start seeking financial relief. An obvious way that pandemics can impact financial systems is through their enormous economic costs. To managing the direct economic impact of the coronavirus, banks need to have a plan in place to protect employees and customers from its spread. Many banks are already starting to encourage remote working of some employees. In this paper, we are aimed to demonstrate an impact of pandemic covid-19 on the banking and financial sector. India's coronavirus outbreak threatens a years-long clean up of its financial system, according to the Indian bank. Banks sit at the heart of the economy and provide funding to corporate and individuals. Their stability is crucial to keep the system up and running.

### **CONCLUSION**

COVID-19 has led to significant structural and behavioral changes in the form of social distancing, drive for economic rejuvenation, and increasing regulatory and government interventions. These changes, such as disruptions to physical operations, impact on asset quality and liquidity, and demand pressure on digital channels, have posed challenges to financial institutions across key functions and also provide some opportunities.

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## IMPACT OF COVID-19 ON CUSTOMER'S ATTITUDE TOWARDS ONLINE SHOPPING AND ONLINE BANKING

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### Abstract

Customers are the king of every kind of business, regardless of which industry you are in and what kind of products and services you are offering. Without the customers, there will be no sales. So it is highly important to play according to the customer needs and preferences. Customer's attitude influences their purchasing behavior. So it is important to analyze the changing attitudes of the customer and Covid 19 is a pandemic that resulted in the change of customer attitude. The way this disease is spread and the way to prevent the spread of the virus accelerated the use of online facilities for shopping and banking. The present study explores the impact of Covid 19 on customer's attitudes towards online shopping and online banking. The study is based on primary data, collected through a structured questionnaire distributed among 75 respondents. Percentage analysis, weighted average ranking, and one-sample t-test were used for analysis. The study revealed that there is a significant change in the customer's attitude towards online shopping and online banking. People found the online facilities as more comfortable, flexible, and easier to access than the offline method and they agree that there is a shift in their preference towards online from offline.

**Keywords:** *Customer attitude, Online shopping, Online banking, Covid 19*

### 1 Introduction

Customers are the king of business and their attitude towards the products and services of the producer determines the success and failure of every kind of industry. The spread of coronavirus augmented the number of first users of online facilities who were earlier inhibited to use. Covid 19 thus created a drastic change in every sphere of life and brought changes in customer's attitudes towards online from offline. Covid 19 has caused significant changes even in the thinking and lifestyle of each individual. People are becoming more conscious about their health and the unexpected lockdown of 21 days taught them to live within the four walls of their house. This developed a situation where people need to find new methods for satisfying their wants and started to explore the online facilities for shopping and banking.

Online shopping is a kind of e-commerce that allows customers to directly buy goods and services from a seller over the internet by using a web browser or mobile apps. Online shopping saves the time of modern people who are so busy that they can't spend much time shopping. The online shopping facilities provide them to shop from wherever and whenever they want and have the feature of 24\*7 availability. Online banking is another innovative facility developed with the invention of the internet. Online banking also known as internet banking or web banking is an electronic payment system that enables the customer of a bank to indulge in a range of financial transactions through financial institution's websites. Due to Covid 19, more people started making use of an online facility than offline as they find it easy, safe, and comfortable for shopping and banking.

The present study is to find the impact of Covid 19 on customer's attitude towards online shopping and online banking which will help in future to generate new business strategies according to the changing needs of customer because fulfilling customer needs are important for the survival and success of any business.

## 2 Review of literature

**Butu and Rodino (2020)** conducted a study on the impact of the Covid 19 crisis upon the consumer buying behavior of fresh vegetables directly from the local market. The main aim of this scientific investigation relies on identifying the methods by which these behavioral changes can influence the digital transformation of the short food supply chain. The study found that the Covid 19 pandemic induced significant changes in consumer purchasing behavior of fresh vegetables directly delivered by the producers. The Study concludes that producers should develop their distribution instruments in a novel manner according to customer preferences.

**Baicu, Gardan, and Epuran (2020)** attempted to present the impact of Covid 19 on consumer behavior in the retail banking sector. This study is an exploratory one that investigated the perceptions upon a phenomenon that was never seen before and that has no previous records available in terms of customer behavior. The study suggests that the bank should make efforts to offer financial education courses to all categories of consumers which will increase the digital skills of the users. There is an increasing need for better communication between banks and customers and banks should design marketing programs to promote the users of online channels. The research found that the degree of mobile/ internet banking services consumption of respondents has increased during the pandemic in comparison with the period before Covid 19 and there is a need for more measures to ensure the security of online transactions and reduce risk.

**Sharma and Jhamb (2020)** conducted a study on the changing consumer behavior towards online shopping as a result of Covid 19. The main aim of the study is to reflect on different issues and perspectives of online marketing due to Covid 19. The study concludes that the majority of the customers have changed their traditional buying habits by ordering products online. There is also a shift in the customer's buying behavior from fashion-oriented products to daily need goods.

## 3 Statement of the problem

Customers are the king of every kind of business, regardless of which industry you are in and what kind of products and services you are offering. The customers are playing an inevitable part in the business. Without the customers, there will be no sales. A change in their attitude, behavior, taste, and preference may create both opportunities and threats for the businessman. Covid 19 presents a significant threat not only to our health but also to the basic structure of the social stability of our society. This influences the customer's thoughts, attitudes, and behaviors towards their purchases and financial decisions.

Each pandemic triggers major changes in the economy, global policies, social behavior, and citizen's attitude as well. The pandemic has disrupted the customer's habit and way of banking. The new culture of social distancing, stay home, and stay safe are further expected to push the customer's towards virtual platforms. Before Covid 19, the invention of smartphones and easy access to the internet resulted in a valuable increase in the number of people who make use of online facilities for both shopping and banking activities. But after Covid 19 the growth of the users of the digital platforms accelerated at a very fast rate and the majority of the people started enjoying these digital platforms. The concern for being safe and secure has increased and everyone wants to keep a distance from the crowd. This increased the use of online facilities and it becomes far better than the traditional method as everything is made available to at our doorstep just with the availability of internet. This study is mainly conducted to know the impact of Covid 19 on customer's attitudes towards online shopping and online banking. Changes in the attitude of customers are always relevant and it will help the e-service providers to develop new strategies for capturing more customers.

#### 4 Objectives of the study

- ❖ To examine the impact of Covid 19 on customer's attitudes towards online shopping.
- ❖ To identify the changing attitudes of customer's towards online banking

#### 5 Significance of the study

With the high penetration of the internet, online shopping and banking have become more familiar. Moreover, the restricted circumstances, social distancing, and lockdown made the digital world even more attractive. Now, people started involving more in virtual platforms. Customers decide the existence and survival of every kind of business. So it is important to know what the customer prefers and how they can be satisfied. If the seller fails to take the customer's point of view into account, then it's likely the campaign will never be successful. Due to the pandemic, there has been an increase in the use of online facilities which offer the customers to do shopping whenever and wherever they want with wider choices and offers various banking transactions as well with no need to step out from the house.

In this study, an attempt is made to find the impact of Covid 19 on the customer's attitude towards online shopping and online banking. As Covid 19 has created a shock on the various arena of business, E-services is the new strategy offered in different sectors to rehabilitate the business. So it is significant to study the impact of Covid 19 on customer's attitudes towards online shopping and online banking and it will also help in knowing the future scope of the digital facilities.

#### 6 Research Methodology

The study is descriptive in nature. Both primary and secondary data are used for this study. Primary data is collected through a structured questionnaire distributed among 75 respondents to measure their attitude towards online shopping and online banking before and during Covid 19. The samples are taken from Thrissur and convenient sampling method is used for this purpose. The analysis has been done through simple percentage analysis, weighted average ranking, and one-sample t-test.

#### 7 Analysis and Interpretations

**Table 1: Debit/ Credit Cardholders**

Rating	Frequency	Percentage
Yes	72	96%
No	3	4%
Total	75	100%

Source: Primary Data

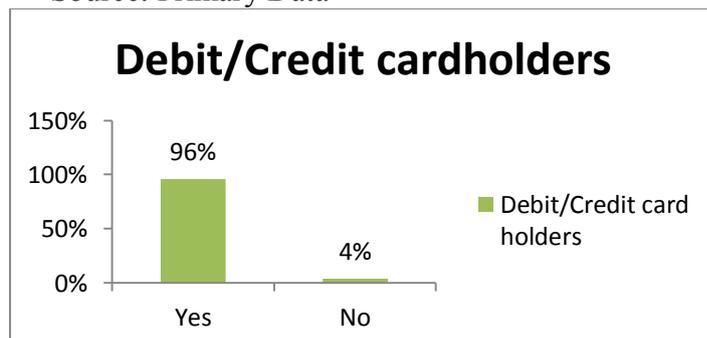


Table 1 shows the number of respondents holding debit/credit cards. Among the 75 respondents, 72 respondents constituting 96% are holding debit/credit card and 3 respondents constituting 4% are not using debit/credit cards.

**Table 2: Frequency of using online banking facility**

Ratings	Before Covid 19		During Covid 19	
	Frequency	Percentage	Frequency	Percentage
Always	13	17%	29	39%
Very often	15	20%	24	32%
Sometimes	17	23%	13	17%
Rarely	18	24%	4	5%
Never	12	16%	5	7%
<b>Total</b>	<b>75</b>	<b>100%</b>	<b>75</b>	<b>100%</b>

Source: Primary Data

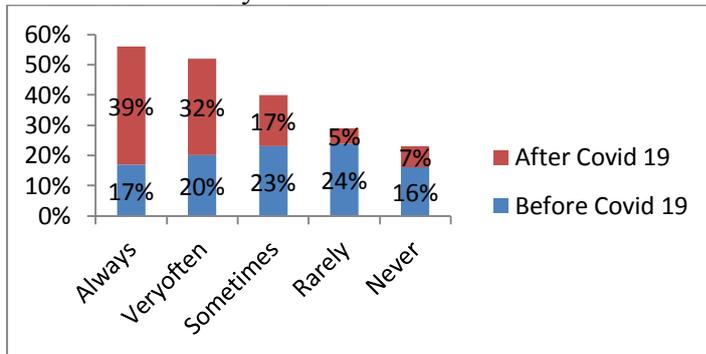


Table 2 shows the frequency of using online banking facilities before and during the Covid 19. Before Covid 19, among the 75 respondents 13(17%) respondents are always making use of online banking facilities, 15 (20%) respondents said that they very often use online banking service, 17 (23%) replied that they are using the online banking services sometimes, 18 (24%) respondents were rarely using online banking services and 12 (16%) replied that they never used the online banking facilities. Whereas during Covid 19, out of 75 respondents 29 (39%) said that they are using the online banking services always to do their banking transactions, 24 (32%) replied that they are very often users of the online banking facilities, 13 (17%) respondents are using the online banking facilities sometimes for their banking activities, 4 (5%) are rarely using the online banking services and 5 (7%) answered that they are not using the online banking services even in Covid days.

**Table 3: Preference for holding liquid cash**

Ratings	Before Covid 19		During Covid 19	
	Frequency	Percentage	Frequency	Percentage
Yes	52	69%	31	41%
No	23	31%	44	59%
Total	75	100%	75	100%

Source: Primary Data

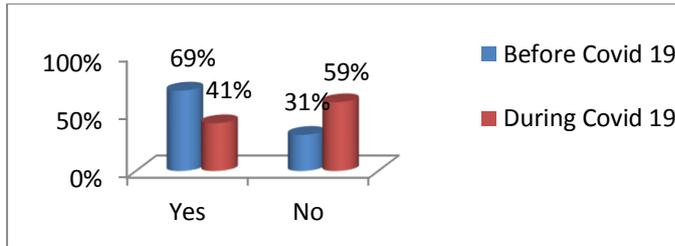


Table 3 shows the preference for holding liquid cash before Covid 19 and during Covid 19.

**Before Covid**  
 out of 75 respondents, 52 (69%) said that they prefer to hold liquid cash always and 23 (31%) replied that they don't prefer to hold liquid cash always. During Covid 31 respondents said that they still prefer to hold liquid cash always with them and 44 (59%) respondents preferred not holding liquid cash during Covid19.

**Table 4: Method for the payment of the bill**

Rating	Before Covid 19		During Covid 19	
	Frequency	Percentage	Frequency	Percentage
Online	37	49%	52	69%
Offline	38	51%	23	31%
Total	75	100%	75	100%

Source: Primary Data

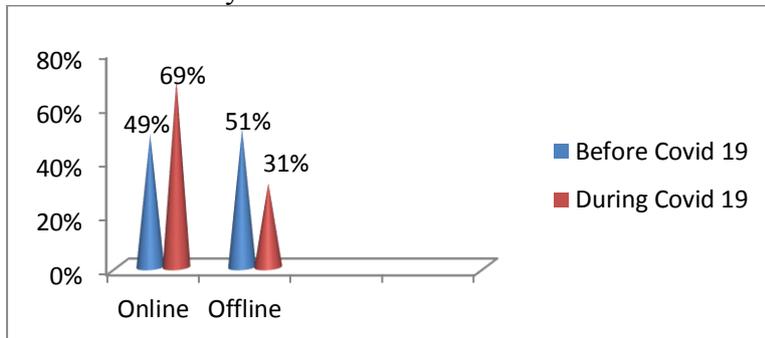


Table 4 shows the method preferred for the payment of the bill before Covid 19 and during Covid 19. Before Covid 19, among the 75 respondents, 37 (49%) replied that they prefer to do online bill payment and 52 (69%) answered that they prefer to pay the bill offline. Whereas during Covid 19, 52 (69%) said that they prefer to pay their bills through online methods and 23 (31%) prefer to pay offline.

**Table 5: whether Online bill payment is more comfortable or not**

Ratings	Before Covid 19		After Covid 19	
	Frequency	Percentage	Frequency	Percentage
Yes	53	71%	64	85%
No	22	29%	11	15%
Total	75	100%	75	100%

Source: Primary Data

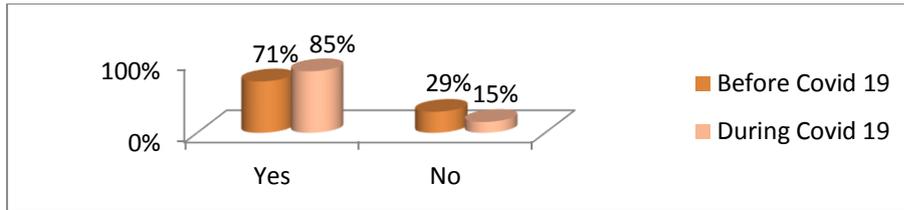


Table 5 shows whether the respondents consider online bill payment as a more comfortable method for payment than offline payment methods before and during Covid 19. Before Covid 19, out of 75 respondents 53 (71%) said that online bill payment is more comfortable than offline payment methods and 22 (29%) replied that they feel more comfortable with offline payment methods than the online. But during Covid 19, 64 (85%) respondents felt more comfortable with online bill payment than the offline bill payment method and, 11 (15%) respondents think that they are more comfortable with the offline payment methods than the online bill payment.

**Table 6: Frequency of using payment apps**

Ratings	Before Covid 19		During Covid 19	
	Frequency	Percentage	Frequency	Percentage
Always	15	20%	25	33%
Very often	13	17%	28	37%
Sometimes	15	20%	10	13%
Rarely	17	23%	5	8%
Never	15	20%	7	9%
Total	75	100%	75	100%

Source: Primary Data

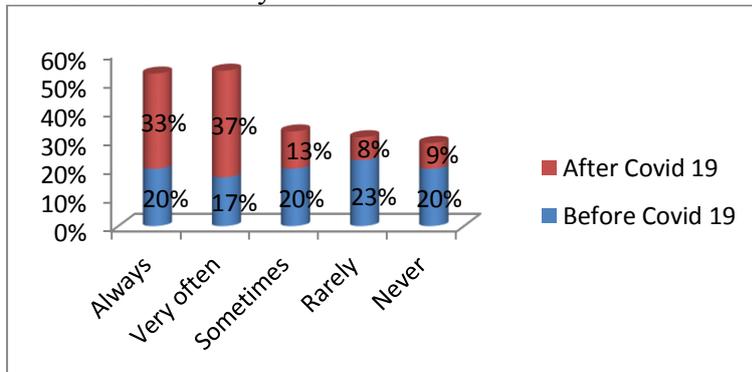


Table 6 shows the frequency of using the payment apps before and during Covid 19. Before Covid 19, out of 75 respondents, 15 (20%) said that they always make use of the payment apps, 13 (17%) replied that they very often use the payment apps, 15 (20%) respondents use the payment apps sometimes, 17 (23%) replied that they rarely use the payment apps and 15 (20%) said that they never used the payment apps. Whereas during Covid 19, 25 (33%) always use the payment apps for making payments, 28 (37%) replied that they very often use the payment apps, 10 (13%) said that they use payment apps sometimes, 5 (8%) respondents rarely use the payment apps and 7 (9%) replied that they never use the payment apps.

**Table 7: Preference for shopping**

Ratings	Before Covid 19		During Covid 19	
	Frequency	Percentage	Frequency	Percentage
Online	24	32%	65	87%
Offline	51	68%	10	13%
Total	75	100%	75	100%

Source: Primary Data

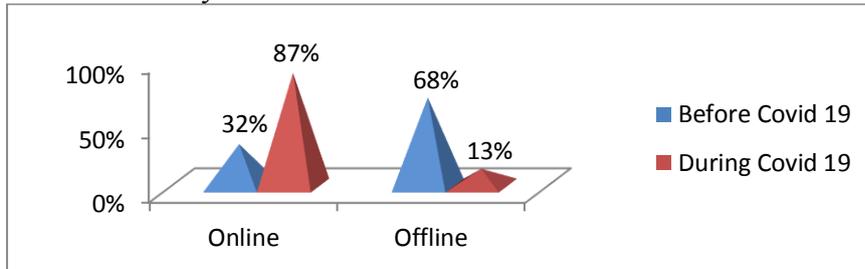


Table 7 shows from where the respondents prefer to shop whether from online or offline. Before Covid 19, out of 75 respondents, 24 (32%) answered that they prefer to shop from online and 51 (68%) said that they like to shop offline. Whereas during Covid 19, 65 (87%) respondents said that they prefer to shop online and 10 (13%) respondents are favorable to offline shopping.

**Table 8: Frequency of buying things online**

Ratings	Before Covid 19		During Covid 19	
	Frequency	Percentage	Frequency	Percentage
Always	9	12%	20	27%
Very often	9	12%	25	33%
Sometimes	27	36%	20	27%
Rarely	21	28%	7	9%
Never	9	12%	3	4%
Total	75	100%	75	100%

Source: Primary Data

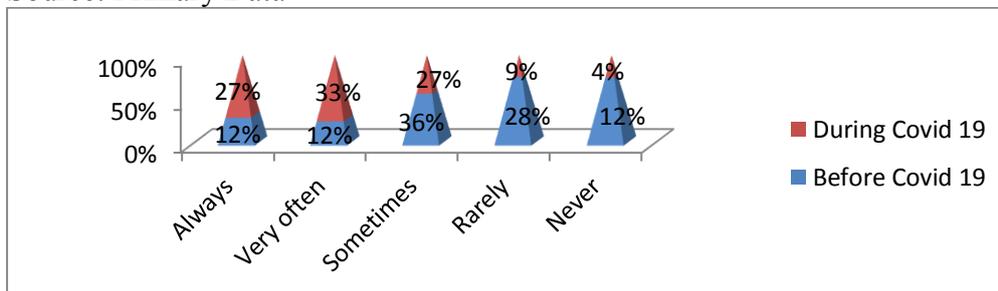


Table 8 shows the frequency of online shopping before Covid 19 and during Covid 19. Before Covid 19, out of 75 respondents, 9 (12%) answered that they always do online shopping, 9 (12%) said that they very oftendoonline shopping, 27 (36%) replied that they do online shopping sometimes, 21 (28%) replied that they shop rarely through online and 9 (12%) said that they never buy things through online. Whereas during Covid 19, among the 75 respondents, 20 (27%) said that they always purchase online, 25 (33%) replied that theyvery often doonline shopping, 20 (27%) said that they shop online sometimes, 7 (9%)

respondent purchase rarely through online and 3 (4%) said that they never purchase things through online even during Covid 19.

**Table 9: Buying more products online than offline**

Ratings	Before Covid 19		During Covid 19	
	Frequency	Percentage	Frequency	Percentage
Yes	20	27%	42	56%
No	55	73%	33	44%
Total	75	100%	75	100%

Source: Primary Data

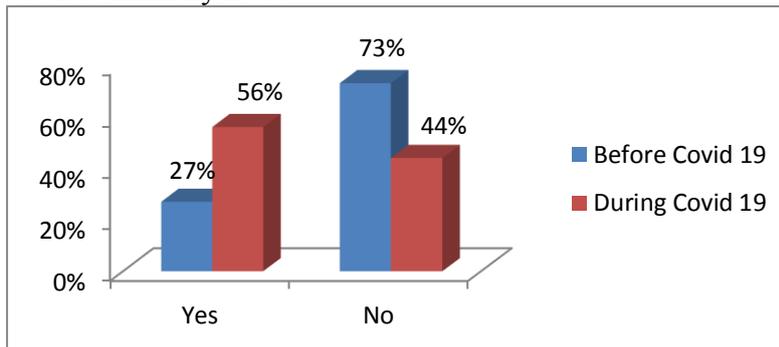


Table 9 shows that whether the respondents buy products more from online than offline. Before Covid 19, out of 75 respondents 20 (27%) said that they buy more products online than offline and 55 (73%) said that they purchase offline more than online. Whereas during Covid 19, 42 (56%) respondents replied that they purchase more online than offline and 33 (44%) said that they purchase more products offline than online.

**Table 10: Online shopping satisfy as much as physical shopping**

Ratings	Before Covid 19		During Covid 19	
	Frequency	Percentage	Frequency	Percentage
Yes	20	27%	43	57%
No	55	73%	32	43%
Total	75	100%	75	100%

Source: Primary Data

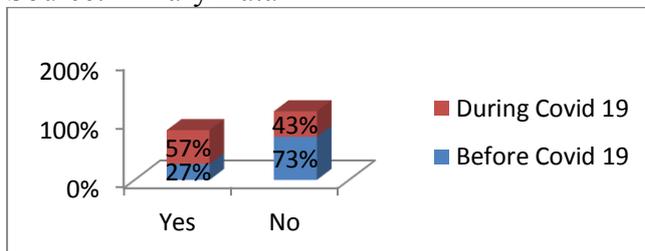


Table 10 shows whether the respondents are satisfied with online shopping as much as physical shopping or not. Before Covid 19, out of 75 respondents 20 (27%) replied that they are satisfied with online shopping and 55 (73%) said that online shopping is not satisfactory as physical shopping. Whereas during Covid 19, 43 (57%) said that they are satisfied with online shopping as much as physical shopping and 32 (43%) said that they still don't think that online purchase can give as much satisfaction as physical shopping.

**Table 11: Amount spend for online purchase**

Ratings (in rupee)	Before Covid 19		During Covid 19	
	Frequency	Percentage	Frequency	Percentage
Nil	10	14%	4	5%
Less than 1000	39	52%	26	35%
1000-5000	19	25%	29	39%
More than 5000	7	9%	16	21%
Total	75	100%	75	100%

Source: Primary Data

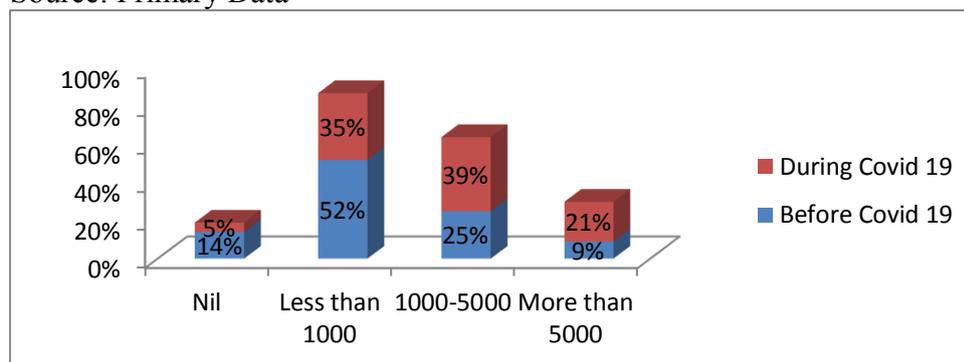


Table 11 shows the amount spent by the respondents for online purchases before Covid 19 and during Covid 19. Before Covid 19, out of 75 respondents, 10 (14%) respondents did not spend on online purchase, 39 (52%) spent less than 1000 rupee per month for online shopping, 19 (25%) respondents spent amount between 1000 and 5000 rupees for online shopping and 7 (9%) said that they spent more than 5000 per month for online shopping. Whereas during Covid 19, 4 (5%) respondents replied that they never spend for online shopping, 26 (35%) said that they spent less than 1000 during Covid 19 for online shopping, 29 (39%) replied that they spent between 1000 and 5000 rupees per month for online shopping and 16 (21%) respondents answered that they spent more than 5000 rupees per month for online shopping during Covid 19.

**Table 12: Mode of payment of purchase**

Ratings	Before Covid 19		During Covid 19	
	Frequency	Percentage	Frequency	Percentage
Cash on delivery	47	63%	23	31%
Net banking	9	12%	17	22%
Debit/Credit Card	12	16%	24	32%
Payment apps	7	9%	11	15%
Total	75	100%	75	100%

Source: Primary Data

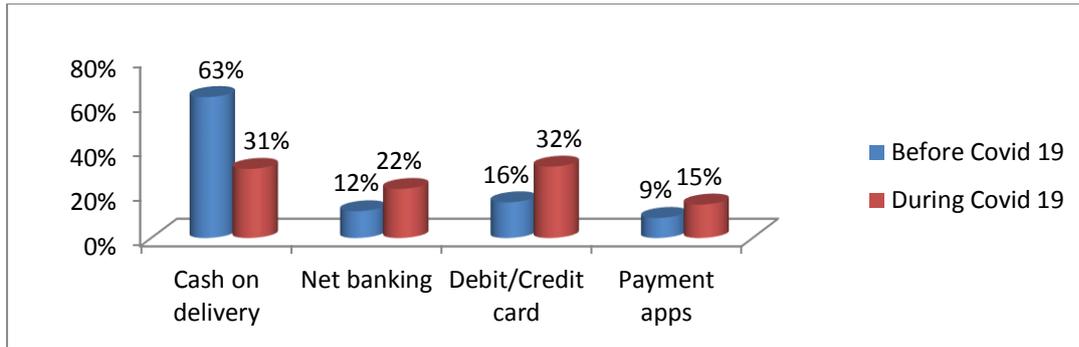


Table 12 shows the mode of payment the respondents opted for the payment of purchases before Covid 19 and during Covid 19. Before Covid 19, out of 75 respondents, 47 (63%) said that they choose cash on delivery for the payment of purchases, 9 (12%) replied that they prefer net banking for purchase payment, 12 (16%) said that they will make payments through debit/credit cards and 7 (9%) answered that they make payments through payment apps. Whereas during Covid 19, 23(31%) replied that they still prefer cash on delivery for payment, 17 (22%) respondents said that they prefer net banking for payment, 24 (32%) replied that they make payments through debit/credit cards and 11 (15%) said that they will use payment apps for payment purpose during Covid 19.

**Table 13: Frequency In Using online banking service During Covid 19**

Ratings	Frequency	Percentage
Yes	48	64%
No	27	36%
Total	75	100%

Source: Primary Data

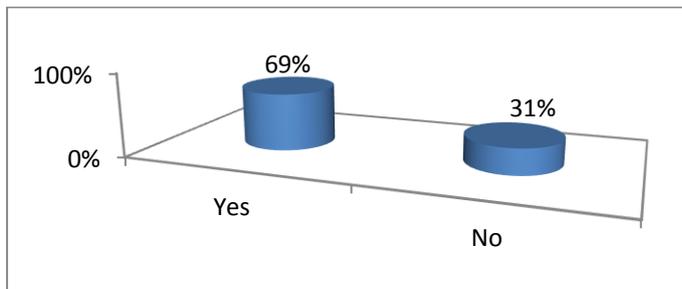


Table 13 shows that whether the respondents started to use online banking services during Covid days. Out of 75 respondents, 48 (64%) replied that they started to avail themselves online banking facilities during Covid 19, and 27 (31%) answered that they are not started to use the online banking facilities during Covid 19.

**Table 14: Payment apps are downloaded during Covid 19**

Ratings	Frequency	Percentage
Yes	42	56%
No	33	44%
Total	75	100%

Source:Primary Data

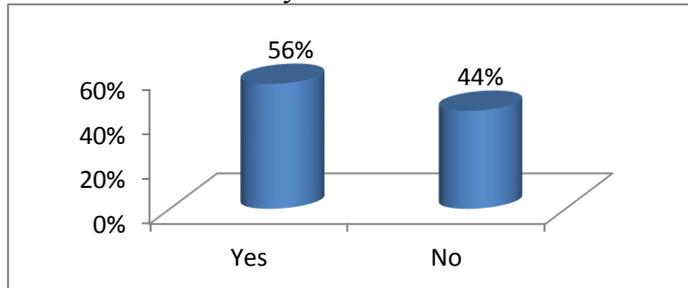


Table 14 shows that whether the respondents downloaded the payment apps during Covid 19 or not. Out of 75 respondents, 42 (56%) replied that they downloaded the payment apps during Covid 19 for making online payments and receipts and 33 (44%) said that they are not downloaded the payment apps during Covid 19.

**Table 15: Usage of various online banking transactions**

	Before Covid 19				During Covid 19			
	Yes		No		Yes		No	
	Frequency	%	Frequency	%	Frequency	%	Frequency	%
Viewing account balance	49	65%	26	35%	53	71%	22	29%
Obtaining statements	22	29%	53	71%	36	48%	39	52%
Making payments	41	55%	34	45%	60	80%	15	20%
Checking recent transaction	26	35%	49	65%	41	55%	34	45%
Transfer money between accounts	29	39%	46	61%	47	63%	28	37%
Open a new account	5	7%	70	93%	3	4%	72	96%
None of the above	13	17%	62	83%	5	7%	70	93%

Source: Primary Data

Table 15 shows the various banking services the respondents did online. It includes the services like viewing account balance, obtaining statements, making payments, checking recent transaction, transfer money between accounts, open a new account and option is given for those respondents who do not use the online banking services as any of the above before and during Covid 19. Before Covid 19, 49 (65%) make use of online for viewing account balance and 26 (35%) said that they do not use online facility for viewing account balance, 22

(29%) respondents answered that they obtain statements through online and 53 (71%) replied that they obtain the statement offline, 41 (55%) said that they make payments through online and 34 (45%) replied that they make payments through offline, 26 (35%) answered that they check their recent transactions through online and 49 (66%) said they check their recent transactions through offline, 29 (39%) replied that they transfer money between accounts through online mode whereas 46 (61%) prefer to transfer money between accounts through offline mode, 5 (7%) open a new account through online and 70 (93%) said they open account in a bank through offline, 13 (17%) said that they do not use online facilities for banking transactions and 62 (83%) said that they use online facilities for various banking purposes. During Covid 19, 53 (71%) replied that they view their account balance through online and 22 (29%) said that they view their account balance through offline, 36 (48%) answered that they obtain their account statement through online and 39 (52%) replied that they obtain their statements through offline mode, 60 (80%) respondents said that they make payments through online during Covid 19 and 15 (20%) answered that they choose offline method for the payments, 41 (55%) said that they check their recent transactions through online and 34 (45%) answered that they prefer offline method for checking recent transactions, 47 (63%) replied that they prefer online method for the transfer of money between accounts and 28 (37%) choose offline mode for the transfer of money between accounts, 3 (4%) replied that they opened new account through online mode and 72 (96%) answered that they prefer to open new account through offline method, 5 (7%) said that they do not use any online facilities for doing banking transactions and 70 (93%) replied that they use the online facilities for banking transactions during Covid 19.

**Table 16: Ranking based on the preference for the purchase of goods from online before Covid 19**

Items	Weighted Total	WACC	Rank
Health and Safety	280	10	4
Food and Beverage	311	11.10	3
Luxury goods	333	11.89	2
Fashionable good	365	13.03	1
Electronics	274	9.78	6
Grocery	258	9.21	7
Cosmetics	279	9.96	5

Source : Primary Data

Table 16 shows the ranking based on the preference of shopping from online before Covid 19. Fashionable goods occupy the first rank which the respondents prefer more to purchase from online. The Second rank is obtained by luxury goods. The Third rank is given to food and beverage items by the respondents. Health and safety products obtain the fourth rank. Cosmetics products have given the fifth rank. The Sixth rank is occupied by the electronics products and Grocery is preferred seventh in the list. Fashionable goods are the highly preferred products to purchase online by the respondents and grocery is the least preferred item to purchase online before Covid 19.

**Table 17: Ranking based on the preference for the purchase of goods from online during Covid 19**

Items	Weighted Total	WACC	Rank
Health and Safety	428	15.28	1
Food and Beverage	384	13.71	2
Luxury goods	278	9.92	4
Fashionable good	331	11.82	3
Electronics	234	8.35	6
Grocery	265	9.46	5
Cosmetics	188	6.71	7

Source : Primary Data

Table 17 shows the ranking based on the preference of shopping products online during Covid 19. During Covid 19 the respondents were given the first rank on health and safety products for online purchase. The concern for health and cleanliness has increased during the Covid period and people prefer to buy various health and safety products from online than other items. The Second rank is given to the food and beverage products. The Third rank is occupied by fashionable goods. Luxury goods have given the fourth rank. The respondents prefer grocery products in the fifth position. Electronics secure the sixth position in the list of products and cosmetics obtained the seventh position in the list. During Covid days there is a change of preference of purchase of items from online. Health products prefer to buy more and cosmetics preferred the least to purchase.

**Table 18: Ranking based on the expected reasons if there is any shift of preference from offline to online**

Items	Weighted Total	WACC	Rank
Safety	353	12.6	2
Easy access	391	13.96	1
Comfortable	331	11.82	3
Wider Choice	323	11.53	4
Offers	276	9.85	6
Flexibility	285	10.17	5
Secured	141	5.03	7

Source : Primary Data

Table 18 shows the ranking based on the expected reasons if there is any shift of preference from offline to online. Easy access is secured the first rank which is considered to be the major reason if there is any shift of preference from offline to online. Safety is secured the second rank because during Covid 19 the people want to keep social distance and do not want to interact with many. This may be the reason people prefer to shop online than offline to be safe. Comfortable has given the third rank by the respondents. The fourth rank is given to the wider choice available in online as a reason for the shift of preference. Flexibility has secured the fifth rank. Offers are chosen in the sixth position and respondents given the seventh rank to security. The respondents consider easy access as a major benefit of online transactions and security is considered the least reason for online transactions.

**Table 19: Customer's attitude towards online shopping and online banking during Covid 19**

H0: The opinion regarding the customer's attitude towards online shopping and online banking is equal to the average level.

Test Values				
Statements	Mean	SD	T value	P value
CASBA1	4.107	.9090	10.543	<0.001**
CASBA2	4.173	.8601	11.814	<0.001**
CASBA3	4.133	.9202	10.666	<0.001**
CASBA4	3.667	1.0045	5.748	<0.001**
CASBA5	3.720	1.0209	6.108	<0.001**
CASBA6	3.560	.9759	4.969	<0.001**
CASBA7	3.560	1.0429	4.650	<0.001**
CASBA8	4.053	.9986	9.135	<0.001**
CASBA9	4.067	1.0045	9.196	<0.001**
CASBA10	4.053	.8988	10.149	<0.001**
CASBA11	3.960	1.0059	8.265	<0.001**
CASBA12	3.880	1.0129	7.524	<0.001**
CASBA13	3.893	1.0342	7.481	<0.001**

Source : Primary Data

Table 19 shows the statements regarding the customer's attitude towards online shopping and online banking during Covid 19. Since p value is less than .01 the null hypothesis is rejected at 1% level of significance. Hence, conclude that all the opinion regarding all statements of customer's attitude towards online shopping and online banking during Covid 19 is not equal to the average. Based on the mean score the opinion regarding all statements of customer's attitude towards online shopping and online banking during Covid 19 is above the average level which itself explains the agreeability of the respondents that there is a change in their attitude towards online shopping and online banking during Covid 19.

**Findings**

Covid 19 pandemic in India is part of the worldwide pandemic which created a massive change all around the world. Covid 19 has a significant impact on various segments of life. This pandemic has forced people to keep social distance and this made people think more about online facilities. The study tries to explore the impact of Covid 19 on customer's attitudes towards online shopping and online banking. The major findings of the study are that Out of 75 respondents 72 (96%) are holders of debit/credit cards and 3 (4%) are not holding debit/ credit cards. Before Covid 19 the majority of the respondents (24%) were rarely using online banking facilities whereas during Covid 19 greater number of the respondents (39%) replied that they use the online banking facilities always for financial transactions. Regarding the mode of bill payment before Covid 19, most of the respondents (51%) prefer the offline method but during Covid 19, 69% of the participants choose the online mode for bill payment. Before Covid 19 majority (68%) answered offline mode for shopping but during Covid 19 majority (87%) replied they prefer online mode for shopping. Fashionable goods are preferred more before Covid 19 for online purchase and grocery products are the least preferred ones. During Covid 19 health and safety product got the first rank and cosmetic is the least preferred product for online shopping mode. Easy access is considered as the major benefit of online mode over offline and security is considered to be in the last position when measuring the shift of preference from offline to online. Based on the mean score ranging from 3.560 to 4.173 the opinion regarding the customers changing attitudes towards online shopping and online banking is above the average level which itself explains the agreeability of the respondents.

**Conclusion**

People find online transactions as easy to access, safe and comfortable during the lockdown. The availability of internet facilities also enhanced this changing attitude. It has become rare to find a house where there is no one with smartphones and internet access. The Internet allows people to improve the quality of their life. A change in customer's attitude is always significant and crucial for every kind of industry because it may open new doors of challenges and opportunities. This study concludes that there is a significant change in customer attitude towards online shopping and online banking. The amount spends on online shopping has increased, the usage of net banking, payment apps, and debit/credit cards for payment purposes enhanced, and the frequency of using online facilities for shopping and banking has also been enhanced. This study found that the majority of the respondents agreed to the fact that there is a shift of preference from offline to online during Covid 19. The study concludes that Covid 19 has impacted the changing attitude of customers towards online shopping and banking and the majority of them are ready to continue using the online facilities even after the end of Covid 19.

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## QUALITY OF WORK LIFE AMONG THE EMPLOYEES OF PUBLIC AND PRIVATE SECTOR BANKS IN KERALA

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### Introduction

Banks are an inevitable part of any modern economy. It is a pillar for the economic growth. It acts as a parking space for the savings of the public and pays attractive interest rates. Also, the banks involve in money creation and channelizes the surplus funds to investment avenues. Banks meet the financial requirements of the trade and commerce, industry and agriculture. Through the process of creation of money, banks play an important role in managing the supply of money in the economy. They impact the economic activities, employment, income and general price level in the country. Since banking sector is a service industry, management of people and management of risk are the important challenges facing by them. A well-organized and skilful manpower is important for proper risk management. Proper integration of both human resource management strategies with business strategies is important in the competitive world. For this purpose, it is necessary to improve quality of work life of human experiences in work environment.

Quality of work life is the degree to which members of a work organization are able to satisfy important personal needs through their experiences in the organization. Jobs and organizations need to be designed to improve the working environment and employer-employee relations. Quality of work life had been used to describe the broader job-related experiences an individual has. Healthier Quality of work life leads to employee's morale, minimizes abrasion and checks labour turnover and absenteeism. It augments the brand image for the organization and inspires entry of new talent into the organization. The characteristic indicators of QWL consist of job satisfaction, job involvement, work role ambiguity, work role conflict, work role overload, job stress, organizational commitment and turnover intentions. The concept of QWL incorporates a pecking order of perspective include work-based factors such as job satisfaction, satisfaction with pay and relationships with work colleagues and factors that broadly reflect life satisfaction and general feelings of well-being. More recently work-related stress and the relationship between work and non-work life domains have also been identified as factors that should conceptually be included QWL.

### Review of Literature

Desai J. Chandrasinhji (1981): This study makes an attempt to analyze productivity in banking; concept and methodology. Primary objective of the study was to detect and correct staffing imbalances. Researcher felt that in a service industry like banking with wide variations in work mix, a universally applicable and fully scientific formula is difficult to evolve in any area of management.

Anitha, B. and Subba Rao, P. (1998): This study attempts to assess the Quality of Work life in Commercial Banks. The main objective of the study is to identify the aspects of Quality of Work Life and to analyze the Human Resource movement in Commercial Banks. The study reveals that the aspects of Quality of Work Life include participative management, physical working conditions, scientific management, social aspect, technical system and social integration.

Patiraj Kumari and Pooja Khanna (2007): This study examines the quality of working life in relation to mental health of bank employees with a view to investigate the quality of working life (QWL) in relation to mental health of bank employees. The result revealed significant positive correlation between QWL and mental health. Private sector bank employees were found to be more mentally healthy than the employees of public sector banks. There is

significant difference between the quality of working life of the employees of public and private sector banks

Dr.Ramesh,M. and Mallika,N. (2010) :This study assess the job satisfaction in banking: a case study of private and public sector banks. In this study an attempt has been made to regression and correlation analysis on job satisfaction and variables among the public and private bank employees in Cuddalore District in Tamil Nadu. The study reveals that satisfied employees have a favorable evaluation of their job based on their observation and emotional experiences.

Dzeba Ana (2011): This study analysed the differences in the quality of work life among Croatian employees in the private and public sector. This study showed that in the case of advancement prospectus, good and fair pay, capable management, favorable working conditions and participation in decision making quality of work life is higher in private sector, while the aspects of job security and interesting job are higher in the public sector.

### **Objectives**

1. To examine physical and psychological factors of Quality of Work Life
2. Compare the effect of various physical and psychological factors among managerial and non-managerial employees in Kerala Based banks.

### **Methodology**

The study is of empirical nature and uses both primary and secondary data. Primary data was collected from a sample of 526 bank employees from various banks in Kerala, including SBI and Old Private Sector Banks. Old Private Sector includes Federal Bank, Dhanalekshmi Bank, South Indian Bank and Catholic Syrian Bank. Out of a total of 846 SBI branches 128 and out of a total of 1451 old private sector banks 136 branches were selected as sample for the study. For this study, the bank employees were categorized into managerial and non-managerial employees. Managerial employees include Assistant General Managers, Branch Managers, Deputy Managers and Assistant Managers. Non- Managerial employees include Accountants, Probationary Officers, Special Assistants, Head Cashiers and Single Window operators, etc. Mathematical tools like percentages, averages and statistical techniques such as mean, standard deviation and test of significance like Pearson chi-square, Welch Robust Tests of Equality of Means, Mann-Whitney U test, Levene's Test of Equality of Error Variances and Box's test of equality of covariance matrices were used for analysis of primary data.

### **Variables Studied**

The study is based on different constructs that constitute the Physical and Psychological factors like Health and Well-being, Attitude, Work life balances and Working condition. The study is conducted on managerial and non-managerial employees of both public and private sector banks in Kerala

### **Analysis of Data**

#### **1. Descriptive analysis of health and well-being**

'Health and well-being' is the first construct studied under the physical and psychological factor. Health and well-being includes the various physical and psychological aspects of an individual in any working environment. Banking sector is an integral part of any economy. Its employees are in constant touch with different types of customers who have dynamic temperament, preferences, behavioural pattern, level of understanding etc.

Health and well-being is studied through the variables like continuous hard work, dealing with different customers, lack of welfare facilities and direct and indirect effect of computerization. The result of the analysis is given below.

The mean of the variables Continuous hard work, Dealing with different customers, Lack of welfare facilities, Direct and indirect effect of computerization are 4.45, 4.310, 3.629, 3.234. The mean average of all the variables is above 3.20. It can be inferred that most of the respondents have the opinion that in the case of banking sector, continuous hard work, direct and indirect effect of computerization and dealing with different customers create more physical and psychological problems and there is a lack of proper welfare facilities.

### **1.1 Descriptive analysis of designation of respondents with health and well-being**

On considering all the dimensions such as continuous hard work, direct and indirect effect of computerization, the mean ratings of managerial employees is higher than that of non-managerial employees. Since the p value is lower than .05 in all cases there is significant differences among the opinions of designation wise respondents. From this it is inferred that managerial employees have more problems of health and well-being than non-managerial because of continuous handwork and direct and indirect effect of computerization.

### **1.2 Descriptive analysis of sector wise and designation level of respondents with health and well-being.**

On analysing the factor 'health and well-being' with reference to sector wise and designation wise it is identified that in the case of SBI, the mean ratings of managerial level respondents is (4.093) higher than that of non-managerial level respondents (3.117). Likewise, in the case of Old Private Sector, the mean of respondents from managerial level (4.04) is higher than that of non-managerial level respondents. In order to study the descriptive analysis CVTS (Levene's Test of Equality of Error Variances) is used. Since P value is (.000) less than .05, there is significant difference between sector wise and designation wise analysis of the opinions of respondents.

## **2. Descriptive analysis of attitude level of respondents**

The second construct studied is the attitude of employees. This is an important factor as this can contribute to a peaceful environment and improve the productivity. The variables studied are effective use of skill and abilities, leadership quality and team spirit, opportunity to contribute ideas, personal development and interesting job. Overall, it shows that the mean of the variables like leadership qualities and team spirit and opportunity to contribute are 3.829 and 3.880 respectively which are the higher values. While considering other variables such as use of skills and abilities in an effective manner and chance for personal development the values are low. It is also inferred that bank employees is of the opinion that their job creates leadership qualities and team spirit and helps to provide innovative ideas. But at that time employees have the opinion that their job doesn't give any chance for personal development and they cannot use their skills in an effective manner.

### **2.1 Descriptive analysis of designation with attitude of respondents**

The analysis of designation with attitude of respondents shows that while analyzing the variable, effective use of skill and abilities, the mean ratings of managerial level respondents is higher than that of non-managerial level respondents. But the p value is more than .05; statistically there is no significant difference among the opinions of respondents with reference to designation. But while considering all other variables such as leadership qualities and team spirit, opportunity to contribute ideas, personal development and interesting job, the p value is less than .05, statistically there is a significant difference among the opinions of respondents. It is also inferred that bank job creates leadership qualities and team spirit mostly to managerial level employees and it also provide opportunity for developing innovative ideas to them. Likewise, according to non-managerial level employees this job gives chance for personal development.

### **2.2 Descriptive analysis of sector wise and designation level of employees with attitude level**

In both in the case of SBI and Old Private Sector Banks the mean score of non-managerial employees is higher than that of managerial level employees. On analysing the employees' opinion on the basis of sectors and designation through Levene's Test of Equality of Error variances it is seen that whether the sector is public or private the attitude of non-managerial level respondents is higher than that of managerial level respondents and there is significant difference in opinion among them because the p value is less than .05.

### **3. Descriptive analysis of work life balances**

The third construct studied is the work life balance. It is important to maintain a healthy relationship between personal life and professional life. The employer must ensure the workplace favours this. The banking sector is very competitive and it can be difficult to maintain this balance due to the hectic timings. The construct is studied through variables like Working hours, Work life atmosphere, Distance between work place and home, time-spending with family and Opportunity for leisure activities. The analysis reflects that the mean score of the work life atmosphere of the job is of higher position which is above 3.20. While taking other factors such as working hours of job, distance between work place and home, time- spending with family and leisure activities employees keep the opinion at low. In connection with the different parameters of the variable 'work life balances' it identifies that among the total respondents more of the respondents were satisfied with work life atmosphere of the job. But at that time majority of the respondents were disgruntled with working hours of job, distance between work place and home, time- spending with family and opportunity for leisure activities.

#### **3.1 Descriptive analysis of designation with work life balances**

The analysis of designation with work life balances shows that while considering all factors under work life balances the mean ratings of non-managerial level respondents is higher than that of managerial level respondents. CVTS (Mann-Whitney U test) states that statistically there is a significant difference among the opinions of respondents with reference to work life balances in designation wise because the p value is less than .05 in all cases. Regarding the designation wise analysis of the opinion in relation to work life balances it is incidental that in the case of banking sector, managerial employees have more problems in relation with work life balances than that of non-managerial employees.

#### **3.2 Sector wise and designation level of respondents with work life balances**

An employee's work should not overbalance his family life. But the excessive working hours and work life imbalances can be seen among managerial and non managerial level employees of both public and private sector banks. This analysis shows that the mean rating of non managerial level employees is higher than managerial level employees in both types of sector i.e. public and private. CVTS (Levene's Test of Equality of Error Variance) shows that, since p value is less than .05 statistically there is significant difference among the opinions of respondents with reference to both sector and designation.

### **4 Descriptive analysis of respondents with working condition**

Good working environment and working conditions attract and retain employees in an organization. Descriptive analysis of the opinions of the respondents with regard to working condition uses variables like rest period of this job, canteen facilities, drinking water facilities, first aid/ medical facilities, sanitation facilities, pollution control facilities. This analysis states that the mean ratings of the opinions of respondents in relation to the variables such as canteen facilities, drinking water facilities, sanitary facilities and pollution control facilities is of high status which is above 3.2. The variables such as first aid and medical facilities and rest period of the job employees keep their position at low because the mean score is below 3. We can infer that majority of the respondents are dissatisfied with the variables of rest period of the job and first aid/medical facilities.

#### **4.1 Designation wise analysis with working condition**

The working conditions can vary between the managerial and the non-managerial employees in the banking sector. Banking industry, working time and work overload may vary according to the positions. In order to assess the opinions of respondents in designation wise with regards to working condition Mann-Whitney U – test is used. On analysing the factors such as rest period of the job, first aid/medical facilities and sanitary facilities through Mann-Whitney U – test, the mean ratings of non-managerial level respondents is higher than that of managerial level respondents. The p value is less than .05 implying there is a significant difference in opinion among them. At that time while considering the factors of canteen facilities, drinking water facilities and pollution control facilities the mean score of managerial level respondents is of highest position. Mann-Whitney U – test depicts that statistically there is significant differences among the opinions of respondents with regards to working condition because the p value is less than .05.

#### **4.2 Sector wise analysis and designation wise analysis of respondents with working condition**

The analysis of sector and designation with working condition is conducted and it is understood that in both the sector i.e. public or private with reference to working condition, the mean ratings of non-managerial employees is higher than that of managerial level employees. CVTS (Levene's Test of Equality of Error Variances) reflects that since the p value is less than .05 implying there is a statistically significant difference among the opinions of respondents with reference to working condition.

#### **Conclusion**

Physical and psychological factors play an important role in the employee's performance. The employer has to ensure the environment is conducive and motivating to the employee. In the banking sector, the managerial level respondents have more problems of health and well-being than non-managerial level employees. Both the managerial and non-managerial level employees agreed that bank job creates leadership qualities and team spirit mostly among managerial level employees and it also provide opportunity for developing innovative ideas to them. According to non-managerial level employees this job give chance for personal development. But managerial level employees are not interesting, energetic and enthusiastic due to this job. The work life atmosphere of the job is of a satisfactory position. Although, the work-life balance is not at a satisfactory level. In both public sector or private sector, work life imbalance is more in managerial level employees. Regarding working condition, non-managerial employees of both public and private sector are satisfied.

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## COVID 19 REPERCUSSIONS ON EDUCATIONAL INSTITUTION IN INDIA

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### Abstract

Covid-19 is considered as the biggest challenge that the human being has faced till date. With a majority of the countries under preventive lockdown, several functions of everyday life have shaken. Education is one of them. Children being most susceptible to infections and educational institutions being crowded places where social distancing goes for a toss, colleges and schools were the first to be shut down. paper emphasises some initiative preventive measures taken by the Govt. of India to continue the education system in a smooth way and also put forth the positive as well as negative impacts of Covid-19 on education system in India.

Key words: Covid 19, educational institution, Govt of India

### Introduction

COVID-19 is a new strain of coronavirus that has not been previously identified in humans. The COVID-19 is the cause of an outbreak of respiratory illness first detected in Wuhan, Hubei province, China. The disease has since spread worldwide, leading to an ongoing pandemic. The petrifying and severe impact of Covid -19 has shaken the world to its core. Further, most of the Governments around the world have temporarily closed educational institutions in an attempt to contain the spread of the Covid -19 pandemic. These nationwide closures are impacting over 91% of the worlds' student population. In India too, the government as a part of the nationwide lockdown has closed all educational institutions, as a consequence of which, learners ranging from school going children to postgraduate students, are affected. School closures impact not only students, teachers, and families, but have far-reaching economic and societal consequences.

After observing the corona virus pandemic situation the WHO advised to maintain social distancing as the first prevention step. So, every country started the action of lockdown to separate the contaminated people. The education sector including schools, colleges and universities became closed. Classes suspended and all examinations of schools, colleges and universities including entrance tests were postponed indefinitely. Thus, the lockdown destroyed the schedules of every student. Though it is an exceptional situation in the history of education, COVID brought the opportunities to come out of the rigorous classroom teaching model to a new era of digital model.

### Revolution of Technology

A complete revolution in the way we learn today has been brought about by Technology. Each student gets in contact with a world-class education, which is not easy to impart by the traditional white chalk and blackboard method of teaching. This new learning is more interesting, personalized and enjoyable. A massive open online course (MOOC) is an online course aimed at unlimited participation and open access via the web. India is considered to be the biggest market for MOOCs in the world after the USA. Since the population of India is huge, massive open online course (MOOC) is said to open gateways for a lot of Indians in terms of bringing an educational revolution. Online distant learning programs give a great opportunity to avail high-quality learning with the help of internet connectivity.

E-learning shall continue to grow at a rapid pace, and this is irrespective of age, location, and subject. The understanding and the adaptation towards electronic devices (smartphones, tablets, laptops) and the growing necessity of the internet across the world have made online

learning all the more accessible and appealing to a generation that has already been receptive to technology

Digital learning has many advantages in itself like digital learning has no physical boundaries, it has more learning engagement experience rather than the traditional learning, it is also cost-effective and students get to learn in the confines of their comfort zone. Globally, online education has met with some success. In the case of India, we still have a long way to go before digital learning is seen as mainstream education, because students living in urban area have the facilities to opt for digital education, however, rural area students do not have the required infrastructure nor are financially strong to avail the resources required for digital education. Building of the digital education infrastructure by the Government of India presently appears to be difficult due to lack of budget. Further, even if the digital infrastructure is built, training has to be given to the teachers to use the digital system to provide authentic and proper, uninterrupted and seamless education to the students.

Due to the outbreak of the pandemic, the work from home culture is booming in India. As social distancing is prescribed as the best way to curb the spread of COVID 19, companies are faced with an unprecedented challenge of ensuring it is business as usual even if everyone is working remotely. Therefore, not only businessmen or start-ups in India have opted for an online platform like Zoom App to stay connected with their employees who are working from their homes but also the educational institutions have opted for different digital platforms to facilitate learning for their students. However, only educational institutions in urban areas can provide those facilities. Again the questions are raised for the learners in rural areas, the educational systems in rural areas and their growth.

With so many different ways to define e-learning and the educational approaches that can be taken in these learning environments, many colleges and extra curriculum activity classes have started making use of the technology. Through applications such as Zoom, various colleges have undertaken the task of educating students through video conferencing. Undeterred by the security concerns which such video conferencing applications may pose, these applications are widely used and have proved to be beneficial and with a lot of advantages. There is picture, sound clarity which makes imparting of knowledge and learning effective for both the instructor and the student.

But at the same time, there is a glaring disadvantage as exams have to be postponed. Examinations cannot be conducted online. It is not only just the question of imparting continuous and uninterrupted learning during the outbreak of COVID 19 pandemic but also the most important challenge for the instructor is to focus on the overall elements of a well-developed course. Developing a purposeful and well-defined online course, which supports the instructor and learner, means devoting the appropriate time and embedding the applicable course elements into the e-learning environment. Through the use of technology, we can, if not provide a strong alternative to the conventional education system, mitigate and compensate for the impediments posed and inconvenience caused due to COVID 19 pandemic to the education system and learners by extension. Learning, as they say, is a continuous and ever-evolving process. The educational institutions in India, from schools to universities, can use this present adversity as a blessing in disguise and make digital education a major part of the learning process for all learners in the future.

### **Initiatives of Govt. of India**

The Govt. of India has been taken a numerous initiative steps for preventing spread of Covid-19 pandemic. On 16 March 2020, the Govt. of India declared a countrywide lockdown of all educational institutions. Central Board of Secondary Education and Union Public Service Commission have also postponed all the examinations, entrance tests and interviews throughout the India. Due to the prevalence of covid-19 many states and educational board

postponed their class and examinations. On 22nd March the Govt. of declared one day Janta-curfew and implement lockdown from 25th March, 2020 onwards in different phases. Govt. of India has extended lockdown periods in different phases and different strategies to cope up with the Covid-19 pandemic but educational institutions remained closed continuously. On June 29, the lockdown 6.0 was declared which is effective from 1st July to 31st July 2020 with some less restriction in other sectors except education. All the states government ministers and education ministers are concerned about their education system during lockdown period. They provide instruction to schools and colleges to start their classes through online. Online learning is the best solution during this pandemic Covid-19 situation the Ministry of Human Recourse Development (MHRD) has taken various digital initiatives to continue the educational activities.

### **Negative Impact of Covid 19 on Educational Sector**

Educational activities have somewhere hampered to a great extent, and we could sense a great amount of confusion, the postponement or delay in exams, academic sessions or the like. There was not enough space for the so-called co-curriculum. Since, face-to-face interaction is usually perceived as the best form of communication as compared to the rather impersonalized nature of remote learning. Remote learning increasingly relies on the reliable power supply and ubiquitous Internet connectivity which might be a far-fetched thing for rural sector in India.

Another challenge is that e-learning comes across as an impersonal experience. So, e-learning can be likely to witness a high dropout rate due to the lack of atmosphere for studying. Students might tend to get distracted by gaming consoles, social media at home and might not feel a sense of community while taking online classes. Successful delivery of education is also in question because learning at the level of higher education and learning at the kindergarten/school level can be different. Digital education cannot be applied the same at every level of the education. The digital world was a dilemma for the teachers who were experts in book, talk, chalk and classroom methods. They had to be trained to meet the challenges of the present situation and go ahead with online teaching. And many students struggled to obtain the gadgets needed for digital learning.

Everything went better though difficultly for educated parents as they helped their children, but it's also time to understand the helplessness of the parents who could not help their children. As the midday meal provision is a great blessing to many school students in India, closure of schools during lockdown meant many children were deprived and malnourished.

### **Conclusion**

Nevertheless, Covid-19 has prompted experts to rethink the conventional mode of education. Digital education appears to be a viable solution to fill in the void for classroom education for a period of three to four months while minimizing the chances of any infection to students until classes resume. More importantly, it has also brought the hitherto peripheral issue of digital education in India to the centre stage. Going forward, digital education is likely to be integrated into mainstream education. This will enable inclusive education by facilitating learning across diverse geographies in India. Moreover, it will provide an opportunity for educators to come up with customized learning solutions for every student. For all we shall hope, this difficult time might be restricted to a year or two, but this is an opportunity to re-strategise and create a blanket learning solution that can be deployed in any crisis because education is the key to build a generation that can bring change and excel. This education shift from offline to online has the potential to be a game-changer for generations and the economy for years to come.

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## CHALLENGES IN INDUSTRY PERSPECTIVES POST COVID-19 IMPACT ON MANUFACTURING, SERVICES AND TECHNOLOGY

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### ABSTRACT

The pandemic has forced industries to a fast and drastic change in how they work, communicate, distribute products and services. COVID-19's significant changes are likely to result in new working models as well as opportunities to build capabilities and explore new foreign markets. Developing a strong virtual-management will be a substantial effort. Adaptive to market demand by personalizing products and services is also in vogue.

In manufacturing sectors post COVID -19 there will be increased level of automation and implementation of Industry 4.0, with localized skills and global aspirations. The production supply chains have been massively disturbed. COVID-19 impact on the manufacturing industry will also create a value chain that operates like a neural network.

The pandemic has forced companies to use technology to reimagine nearly every aspect of their operations in different industries from education, health care, finance to service sectors. As industries are becoming more technology depended, there will be petty cybercrimes which will affect financial and social life of individual dramatically. Consumer technologies such as video conferencing and fintech platforms will face additional scrutiny from consumers and government authorities.

In service sector the inability to conduct on-site activities such as paper-based processing, as well as constraints on off-site capability are putting pressure on core customer functions in the service sector. Global service partners face same operational constraints in scaling up remote work to provide customer-care or back-office support. Social distancing had raised fundamental challenge about how the organisations can continue to reach customers to meet their expectation.

**Keywords:** Automation, industry 4.0, value chain and virtual management.

### INTRODUCTION

Millions of people have been infected by the Coronavirus pandemic, which has also disrupted hundreds of thousands of companies around the world. During COVID-19, all of the major sectors of the process manufacturing industry are struggling. Their main concerns have been reduced demand and a broken supply chain. The pandemic is wreaking havoc on labour markets, currencies, and businesses across the world, as well as global supply chains, causing massive business disruption. Since the manufacturing industries are experiencing some obstacles during the lockdown, some goods became more attractive as demand increased and supply became unavailable. This resulted in price hikes and price extortion. Manufacturing companies with diverse supply chains must devise plans to cope with a crisis of this magnitude.

The coronavirus pandemic should serve as a wake-up call for the global manufacturing sector, stressing the value of Industry 4.0 innovations for survival in a global marketplace that will demand more agile and scalable production processes and supply chains. Manufacturers can see the advantages by implementing a digital-first mentality to a physical company through Industry 4.0 technology such as 3D printing, the internet of things (IoT), advanced robotics, artificial intelligence, and big data. Furthermore, during the pandemic, the growing

need for remote interaction and asset management has highlighted the importance of advanced manufacturing technology such as cloud-based platforms and potential 5G solutions. Early adopters have seen the benefits of their investments thanks to the agility provided by such innovations, as they have been able to pivot more rapidly and seamlessly during the disruptions caused by COVID-19. As businesses try to adjust to the evolving "new normal," such examples of flexibility and adaptability are likely to accelerate the adoption of advanced manufacturing technologies and processes.

Organizations are mobilising industrial and innovation stakeholders in this regard in order to define potential strategies and roadmaps for the post-COVID process from a more strategic, medium/long-term perspective.

COVID-19 is rewarding forward-thinking manufacturers who invested in advanced manufacturing technology by making them more responsive to the crisis, despite the fact that it could be a once-in-a-lifetime opportunity. Technology vendors all over the world are pitching in to help businesses combat COVID-19 by providing free advice and consultation. This presents a fantastic opportunity for all businesses to reassess their technical vulnerabilities and implement a digital transformation strategy in order to emerge from the crisis stronger and better positioned to deal with potential disruptions.

The COVID-19 pandemic has likely dealt the world's economy the most serious blow since the Great Depression of the 1930s. Around 60% of the world's population is either under extreme or partial lockdown due to the lack of a medical solution to the coronavirus, and economic growth has halted or dramatically slowed across countries, robbing millions of people of their livelihoods. The global economy is expected to contract rapidly by 4.9 percent in 2020 as a result of the pandemic, even worse than during the 2008–2009 financial crisis (International Monetary Fund [IMF], 2020). The current pandemic is spreading through a highly globalised world with interconnected supply chains and financial markets.

During the COVID-19 pandemic, digital technologies such as the computerised tomography machine, video-based communication network, and artificial intelligence were widely used in healthcare, education, work, and everyday life. Providers and receivers are the two primary consumer classes of electronic technology, which include physicians and patients, teachers and students, the government, and the general public. It's worth noting that workers who use telework to complete their tasks have two identities at the same time. During the pandemic, the most common things associated with technology in healthcare were providing health services and interacting. Transitioning from face to face to online, connecting, and providing instruction are among the most popular tasks in this educational group.

Tracing, analysing data, predicting/forecasting, and diagnosing the virus were the most common activities in terms of everyday use and digital technology, and digital solutions greatly protected and promoted public health. It helped people understand education better and highlighted the shift to online learning. This analysis extensively analyses the value of digital technology for pandemic prevention and control from the perspectives of healthcare, education, employment, and everyday life, in addition to listing the software and hardware systems, users, activities, and consequences.

## OBJECTIVES

- The aim of this study is to determine the extent of disruption due to COVID-19 in the manufacturing and service industries, as well as their operations.
- Identifies the different methods that the industries used to resolve the issues.
- The effects on an organization's workforces, ecosystem, network assets and managerial consequences.

- Managerial consequences and the role of technology in the recovery process, which will ensure that the industry remains crisis-resistant in the future.

## LITERATURE REVIEW

**Mario Rapaccini, Nicola Saccani** in their study draws on an extensive survey and interview data collected during the COVID-19 pandemic. The respondents were executives of industrial firms whose factories, warehouses, and headquarters are located in Northern Italy. This is undoubtedly the European region first and most extensively affected by the pandemic, and the government implemented radical lockdown measures, banning nonessential travel and mandating the shutdown of all nonessential businesses. Several major effects on both product and service businesses are highlighted, including the disruption of field-service operations and supply networks. This study also highlights the increased importance of service business models and the acceleration of digital transformation and advanced services. To help firms navigate through the crisis and be better positioned after the pandemic, the authors present a four-stage crisis management model (*calamity, quick & dirty, restart, and adapt*), which provides insights and critical actions that should be taken to cope with the expected short and long-term implications of the crisis. Finally, this study discusses how services can enhance resilience for future crises—providing a set of indicators on the presumed role of, and impact on, service operations in relation to what executives expect to be the “next normal.”

**Fernando Almeida, José Duarte Santos, José Augusto Monteiro** COVID-19 has caused dramatic effects on the world economy, business activities, and people. But digitization is also helping many companies to adapt and overcome the current situation caused by COVID-19. The growth in the use of technology in the daily lives of people and companies to face this exceptional situation is an evidence of the digital acceleration process. This exploratory study analyses the impact of digital transformation processes in three business areas: labour and social relations, marketing and sales, and technology. The impact of digitalization is expected to be transversal to each area and will encourage the emergence of new digital products and services based on the principle of flexibility. Additionally, new ways of working will foster the demand for new talent regardless of people's geographical location. Moreover, cybersecurity and privacy will become two key elements that will support the integrated development of the Internet of Things technology solutions, artificial intelligence, big data, and robotics.

**Aalok Kumar, Sunil Luthra, Sachin Kumar Mangal** the global production and supply chain system is mostly disrupted due to widespread of the coronavirus pandemic (COVID-19). Most of the industrial managers and policymakers are searching for adequate strategies and policies for revamping production patterns and meet consumer demand. From global supply chain perspectives, the majority of raw materials are imported from China and other Asian developing nations. The COVID-19 pandemic has broken the most of transportation links and distribution mechanisms between suppliers, production facilities and customers. Therefore, it is imperative to discuss sustainable production and consumption pattern in the post-COVID-19 pandemic era. Most of the prominent economies around the world enforced a total lockdown, and the focus has since shifted to surge in demand for essential products and services. This has led to a decline in demand for some nonessential products and services. The production and operations management challenges of the pandemic situations are discussed and adequately proposes policy strategies for improving the resilience and sustainability of the system. This paper also discusses the different operations and supply chain perspectives for handling such disruptions in the future.

## STATEMENT OF THE PROBLEM

The COVID-19 pandemic is still a public health and humanitarian emergency, it also has a profound impact on businesses. While navigating financial and operational challenges, companies are increasingly adapting to the changing needs of their employees, consumers, and suppliers. The amount of potential change to consider can be overwhelming, with every sector, feature, and geography affected.

Manufacturing is one of COVID-19's hardest-hit industries. The novel Coronavirus was created in China, which houses the majority of the factories that supply raw materials to various manufacturing units around the world. To stop the virus from spreading, steps were taken. The subsequent lockdown brought production plants to a halt, as well as the entire supply chain, to a halt.

To put it in perspective, China is home to one or more Tier 1 suppliers for over 75% of enterprises, and 938 of Fortune 1000 companies have Tier 2 suppliers there. This has set off a series of events, including a dramatic drop in global FDI inflows and a global economic downturn. According to the United Nations Conference on Trade and Development (UNCTAD), the COVID-19 outbreak reduced global FDI by 5 to 15% due to a downturn in the manufacturing sector and factory closures. Many manufacturers are simply keeping up with work focused on current customer orders, leaving little time or resources to invest in other essential initiatives. For implementation of industry 4.0 including collaborative robotics, autonomous material movement, the internet of things, and artificial intelligence extra funding is needed to afford these new automation technologies.

Even before the pandemic, the MSME sector was suffering from issues such as late payments, over-dependence on a small number of customers, and a shortage of skilled labour. The pandemic has shattered MSMEs' backs, and survival is now their greatest obstacle.

The Covid-19 pandemic has reduced MSMEs' earnings by 20 to 50 percent, with micro and small businesses suffering the effects of the impact, due to lack of liquidity. Some businesses have innovated by changing their emphasis from non-essential commodities to essential commodities, such as hand sanitizer and toiletries, PPE kits, reusable masks and so on to survive in these tough times. MSMEs in remote areas have faced numerous challenges as a result of disrupted supply chain networks. Many companies laid off staff due to a shortage of funds, vacated offices to avoid incurring expenses, and stopped manufacturing due to a lack of demand. Lack of technological knowledge and the perceived costs of creating a web presence continue to be the most important obstacles for establishing web presence in MSMEs and other small businesses.

Financial institutions are hesitant to expand new financial lending or cover potential risk because of uncertainty in future trade and the return of the new standard. This general sense of insecurity necessitated an intervention from the government to restore consumer trust and daily cash flow in the economy.

Businesses that provided services were the first to get affected by the lockdown it included services ranging from technology to travel and trade. Businesses that provide services such as ride-hailing, food delivery, hotel reservations, and real estate have been forced to cut employees as a result of the lockdown. The service industry needed to protect both its workers and the consumers it serves by ensuring their security and safety. Organizations adopted contactless procedures, physical distancing, mandating temperature tests, and issuing personal protective equipment (PPE) wherever possible, as recommended by public health authorities.

Organizations that have heavily invested in connectivity (via tablets, VPNs, videoconferencing, and “virtualization” tools) are finding their robustness limits when serving the entire organisation. Many core operations functions, such as those in charge of field tasks, paper-based processes, and customer-care or back-office functions, are still not completely WFH activated in many organisations.

Security risk is a major concern now that core operations have gone virtual, particularly for colleagues who have access to sensitive data related to finance, health, or identity.

## **RESEARCH METHODOLOGY**

Research Methodology is a method to do comprehensively determine the research problem. It may be understood as a science of studying how research is done scientifically. It explains the various steps that are generally embraced by a researcher in scrutinizing the research problem.

Secondary data is mainly used for this study, which is mainly collected from different authors publications and journals. Secondary data are data that have been formerly collected or accumulated for other determination than the aim of the academic article’s study. This type of data is already available, in different forms, from a variety of sources

## **ANALYSIS**

Businesses have quickly adapted to the changes brought about by Covid in order to protect the interests of both consumers and workers. We found a major change in the pattern of operations, as well as company investments in technology, a shift in working culture, the introduction of new managerial approaches, and the creation of a new value chain that acts as a neural network. Employees have begun to operate remotely as a result of the changing times. To endorse service improvements including e-signatures, WFH security protocols, and expanded online platforms, organisations had to make significant process and policy changes. WFH procedures and strategies can be improved over time to ensure that workers have safe access to only the details they need to do their work. This process automation provides a manufacturing system in which machines are equipped with communication and sensors to track and collect real-time data, allowing the industry to support itself in the manufacturing process and make autonomous decisions.

Intelligent manufacturing (IM) systems promise to create a secure working environment in the manufacturing sector by using automated manufacturing assets that are tracked by networked sensors and managed by the intelligent decision-making algorithms. The use of IM technology to alleviate output disruptions allows for the reconnection of good and service flows in the network, reducing the scale of industrial chain disruptions. The Intelligent Manufacturing System (IMS) is a modern manufacturing system that integrates human, machine, and process capabilities to create the best possible product. The entire process of collecting inputs, organising them, and converting them into the desired output is referred to as a manufacturing method. IMS aims to optimise the use of manufacturing capital, reduce waste, and add value to the company. In conventional manufacturing systems, using intelligence means adding versatility to production processes, evaluating current processes and their defects, gathering data on them, and using the data to create better processes. Owing to the operator's inability to keep up with the current technological advances, the conventional manufacturing system struggled to address uncertainties and complexities in processes. To make fast forecasts and follow a flexible approach to manufacturing based on

self-learning, it was essential to combine the use of machines and new technology. The concept of an intelligent production system arose from information technology.

The coronavirus outbreak has prompted businesses to reconsider their supply chains. It demonstrated how integrated digital supply networks (DSNs) can help organisations predict, sense, and react to unexpected changes in order to reduce their effects. COVID-19 has prompted supply chain leaders to concentrate on short-term targets in 2020, enabling them to adapt rapidly to global disruption. However, now is not the time to put sustainability measures on hold; longer-term structural challenges, as well as market pressure to address them, will remain.

Data from third-party collaborators can be gathered to gain insight into stock movement across the supply chain network and to detect possible bottlenecks. For example, if inventory is delayed when crossing the border, companies may develop contingency measures to fix the problem and speed up the process. Although digital solutions can offer a double dividend for supply chains by allowing for long-term growth while also increasing productivity and reducing waste, better data is insufficient on its own.

Owing to government regulations and health issues, many companies have been forced to make their employees work from home as a result of the COVID-19 pandemic. As a result, virtual teams have formed within the same department or agency, as well as within the same venue. During these trying times, MSMEs turned to video conferencing software and WhatsApp to keep their businesses afloat.

Industry leaders are adopting Industry 4.0 strategies, implementing nerve centres, or control-tower methods to enhance end-to-end supply-chain transparency as a result of COVID-19-related labour shortages and travel constraints and for fast-tracking automation programs. Industry 4.0 refers to a new phase of the Industrial Revolution in which modern manufacturing methods are combined with IoT, RPA, AI, and other technologies to create highly connected industries. These industries are not only related, but also interact, evaluate, and manage data in order to produce even better outcomes in the real world.

Physical manufacturing and processes, as well as smart digital technologies, are being applied. Industry 4.0 provides a more holistic and better-connected environment for manufacturing and supply chain management companies by combining physical development and operations with smart digital technologies such as machine learning and big data.

The obligation in the service sector was to ensure the security and safety of both workers and the customers they served. Organizations are now introducing contactless procedures, the physical distance, instituting temperature tests, and issuing personal protective equipment (PPE) wherever possible, as recommended by public health authorities. Although progress is erratic, it appears that the mechanism is working: Strict physical-distance and personal-protection-equipment policies are gradually suggesting that if an employee tests positive for the coronavirus, there will be overnight cleaning rather than days or weeks of shutdown will be adequate to ensure workplace safety.

At work, the process manufacturers implemented worker safety initiatives as well as best hygiene and sanitization methods. Review their procurement methods and make plans to work with alternative vendors. Their product lines should be rationalised. Examine the supply chain's agility and make changes to make it more robust. Study their emergency or crisis response plans. E-commerce and delivery networks should be configured and automated. Their pricing and marketing methods should be re-evaluated. A successful procedure Manufacturing ERP software will assist with the majority of the goals mentioned above, as well as others.

## FINDINGS AND SUGGESTIONS

- It was found that COVID-19 impacted all the sectors irrespective of industries. Though some sectors were severely affected, they were able to come up with innovative solutions.
- Pandemic made manufacturing sector came up with new value chain that acted like neural networks, implementation of industry 4.0, remote working, new managerial concepts, intelligent manufacturing etc.
- In service sector e-commerce saw a sudden boom, digitisation of paper-based processes, implementation of contactless systems. Providing safety of customers and employees became need of the hour.
- With lockdown the major operations were done through advanced automation processes, using online platforms and companies began investing more in savvy technologies.

## CONCLUSION

COVID 19 was a humanitarian and economic disaster on a global scale. During the pandemic, the major manufacturing and raw material supplier countries were the hardest hit, causing supply chain instability and development delays. Businesses must develop new and creative tools in order to satisfy changing consumer needs and prevent production and supply bottlenecks. Businesses were able to quickly adapt to changing economic and organisational challenges. In the early stages of the pandemic, the service industry came to a halt as well, and it took time for them to develop contactless systems and to lessen restrictions on off-site capabilities.

This research focuses on the challenges that industry faces in light of COVID-19's effect on production, services, and technology relevance. During the pandemic, MSMEs that were still suffering were seriously harmed. Virtual management, supply chain, automation in service and manufacturing, and industry 4.0 have helped companies offset the effects of the crisis. As remote working became more common, businesses started to invest in cutting-edge technology. To prevent data abuse in the areas of identification, banking, and health, new policies and regulations have been implemented.

The inability to conduct on-site functions such as paper-based processing, as well as limitations in off-site capability, are all restrictions on core customer functions in the service sector. When it comes to extending remote work to include customer service or back-office support, global service partners face the same organisational challenges. As a consequence of social distancing, the basic issue of how companies will continue to reach out to customers and fulfil their needs has been addressed. Even though the pandemic poses many challenges to the industry it also provides new frontiers opening door to new opportunities.

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## COVID -19 AND INDIA'S SEA FOOD EXPORT INDUSTRY : CHALLENGES AHEAD

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### **Abstract**

The Covid -19 pandemic has made a catastrophic impact on International trade and Global Economy. International trade has been severely shattered with the onset of this global pandemic. It has literally become hard to predict the time frame that will be required for International trade to revert to the former state prior to the Covid- 19 pandemic. One of the worst hit industries has been export industries with special reference to agriculture and food export. Sea food is one among the major components of agriculture and food exports from India. Sea food Export Sector is one among the flourishing sectors in India which plays a crucial role in contributing to the foreign exchange resources of the country. The Covid -19 pandemic was a major blow to the Sea food Export Industry in the country. The paper presents the challenges lying ahead of India's Sea food Export Industry Post Covid-19. The poor availability of raw materials for processing and export, tightening of quality and safety requirements of Importing Countries, rising rejection rate of shipments, and rising transportation costs are identified as some of the major challenges to be confronted by India's Sea food Export Industry.

**Keywords:** *Covid -19, International Trade, Sea food, Exports, Challenges*

### **Introduction**

The Covid -19 Pandemic has led to a drastic impact on all spheres of human life. The lockdowns, Travel Bans and Restrictions imposed during the pandemic period has resulted in severe repercussions in all nations across the globe. The pandemic has led to severe death toll in developed, developing and underdeveloped countries alike. Apart from the loss of human lives, the pandemic has severely affected the livelihood of billions of people especially the daily wage earners. Economic Downturns, Extreme Poverty Rates, Falling Remittances, High Debt Burden and falling employment opportunities are predicted to be some of the critical aftereffects of the pandemic on a global level (Blake & Wadhwa, 2020). International Trade, Commerce and Industry has had a major setback during the pandemic period. International Trade, the connecting link between the world countries is one among the major areas which has been heavily impacted by the Pandemic.

It is estimated that Sea food accounts for one third of international trade (OECD, 2020). The Global Sea food Supply is highly dependent on the production and international trade of sea food (Love, Lyman, & Nussbaumer, 2020). However, the Covid-19 pandemic has led to a standstill in the global trade of sea food. The Exports to different countries has significantly declined over the past few months. Disruptions in Fishery related activities and subsequent stages of fish supply chain has also led to a decline in the volume of sea food processing and export in many countries all around the world. Fish Processing Activities in Sea food Processing Plants were completely halted due to the non – availability of labour force for processing activities.

India, one of the global players in international Sea food Export Trade was no exception to the pandemic. The pandemic affected millions of people who are directly and indirectly related to fishing and related activities. Sea food is one among the major components of India's Food Export basket which plays a vital role in contributing to the foreign exchange earnings of the country. The Covid- 19 pandemic has drastically affected the Sea food Export Supply Chain and the Sea food Export Industry in the country. The present paper presents the challenges to be confronted by the India Sea food Export Industry in the Post Covid Period.

### Review of Literature

- Qureshi, Gul and Meharoof (2020) analysed the impact of Covid-19 on India's Sea food Trade. It was pointed out that Covid-19 has severely impacted India's Sea food Trade and has led to drastic reduction in the demand of Sea food Products, disruptions in the complex sea food supply chain and loss of export revenue to the country. Provision of timely Trade information, intensifying the post- harvest activities in conformity with the safety and quality measures were suggested as the possible measures to be taken to improve the current situation of India's Sea food Trade.
- Purkait Karmakar, Chowdhury and Mali (2020) highlights that the Covid-19 outbreak has severely led to the the disruptions in crop harvesting, Procurement issues, processing and marketing issues. This has seriously affected India's sea food exporting activities.
- Kumaran, et al., (2021) in their study observed that Covid-19 pandemic will negatively affect the sea food export sector in India owing to the restrictions that will be imposed on farm- food trade like cultured shrimp which is the major revenue earning item for the country. In addition to this, the problems of limited market access is envisaged as a potential threat to the Indian sea food export trade.

### Objectives

- To present the challenges to be confronted by the Indian Sea food Export Industry in the Post Covid Period.

### Discussion

Covid 19 has seriously affected the growth rate of the Sea food Exports from India. There has been significant decrease in market wise and item-wise exports of sea food from India during the Post Covid -19 Period.

**Table :1**  
**Comparison of Sea food Exports from India during April – October, 2019 and April – October, 2020**

Particulars	April –October 2019	April –October 2020	Growth (Percentage)
Quantity in Metric Tons	784002	595169	-24.09
Value in Crore Rupees	28628	24042	-16.02
Value in US Dollars	4127	3383	-18.02

### Source : MPEDA, (2020)

Table 1 shows that the growth of sea food exports from India has decreased in terms of both Quantity and Value. The value has decreased considerably in terms of both rupee value and Dollar Value.

**Table : 2**  
**Item –wise Comparison of Sea food Exports from India during April – October, 2019**  
**and April – October, 2020**

Items	Quantity 2019	Quantity 2020	Growth (Percentage)	Value 2019	Value 2020	Growth (Percentage)
Frozen Shrimp	350271	286353	-18.25	2596	2242	-13.64
Frozen Fish	84224	62685	-25.57	199	141	-29.15
Frozen Cuttlefish and Frozen Squid	69477	41099	-40.85	263	159	-39.54
Chilled and Live Items	13814	8995	-34.88	65	38	-41.54
Dried and Other Items	121719	68556	-43.68	274	205	-25.18
Total	639505	467688	-26.87	3397	2785	-18.02

Source :MPEDA, (2020)

Quantity in Metric Tons, Value in US Dollars

Table 2 shows that there has been negative growth in the item-wise exports of sea food from India during April – October 2020 as compared to the same period during 2019. It can be seen that the highest negative growth was observed in the case of Dried and Other Items and the highest negative growth in terms of value was observed in the case of Chilled and Live Items

**Table :3**  
**Export Destination –wise Comparison of Sea food Exports from India during April –**  
**October, 2019 and April – October, 2020**

Items	Quantity 2019	Quantity 2020	Growth (Percentage)	Value 2019	Value 2020	Growth (Percentage)
Japan	40986	37856	-7.64	239	255	6.69
USA	163588	134640	-17.70	1369	1145	-16.36
European Union	79445	59840	-24.69	418	334	-20.10
China	148782	102980	-30.79	667	452	-32.23
South East Asia	117302	62947	-46.34	356	227	-36.24
Middle East	30572	21423	-29.93	147	105	-28.57
Others	58829	48003	-18.40	201	267	32.84
Total	639504	467689	-26.87	3397	2785	-18.02

Source :MPEDA, (2020)

Quantity in Metric Tons, Value in US Dollars

It is well evident that the sea food exports from India to all major markets has suffered negative growth during the period April – October 2020 as compared to the same period during 2019 in terms of both quantity and value. It is observed that the exports to South East Asia has suffered the highest negative growth in terms of both quantity and value. It was observed that Japan was the only exception as compared to the other export markets as a positive growth rate was observed in the case of India's sea food exports to Japan in terms of value.

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**Challenges to be confronted by the Indian Sea food Export Industry in the Post Covid Period**

- **Poor Availability of Raw Materials**

Covid -19 Pandemic and the Lock down imposed led to a severe decline in the fishing activities in all the states of the country. This also led to the closing down of harbours and landing sites as a result of social distancing and declaration of containment zones (OECD, 2020). This in turn led to a severe decline in the availability of raw material for processing and export. One of the major opportunities which came up during the pandemic period was the rise in demand for dried fish products as they are presumed to be less vulnerable from contamination and safety issues as compared to frozen, chilled and live forms. But India has lost this opportunity owing to the shortage of stock of sufficient dried raw material. It is expected that there will be severe shortage in raw material supply owing to the decline in the aquaculture activities of export species during the pandemic.

- **Tightened Food Quality and Safety Standards**

One of the main problems often confronted by the sea food exporters is the stringent quality regulations imposed by the importing countries. The variations in quality specifications also makes the scenario more difficult for the sea food exporters. It is expected that Covid-19 will further lead to tightening of quality standards and specifications. The countries across the globe are under severe pressure to protect the health and safety of their people from the spread of diseases through the import of perishable items like sea food. Hence, this will automatically lead to the imposition of stringent quality restrictions of food imports like sea food.

- **High Rejection Rate of Shipments**

Sea food Exporters often confront the problem of their shipments getting rejected owing to the presence of biological organisms like e-coli, vibrio cholera and salmonella in sea food exported. It also includes the instances where shipments have been rejected due to the presence of dirt, filth and mud. The post Covid-19 period will be more challenging to the sea food exporters as importers are likely to increase the conditions for acceptance of shipments. It is also likely that the tightening of sea food quality and safety standards will further result in increasing number of rejection of shipments.

- **Increasing Transportation Costs**

One of the major challenges to be confronted in the Post Covid -19 period will be the rise in logistics expenses. Transportation issues are likely to increase in the near future as sea food exporters are in a haste to recover the losses suffered during the Lockdown period when there was limited export activity. In addition to this, scarcity of adequate number of Container ships and increased air and sea shipping expenses due to increase in the demand from a large number of exporters for transportation will also be a major challenge to be faced in the Post Covid-19 period.

**Conclusion**

Covid-19 has taken a heavy toll on the India sea food Export Trade. It is expected that the effects of the pandemic will have to be confronted by the Sea food Export Industry in the country for a fairly long period of time. Hence, the Government and Fisheries Departments of respective states must join hands to boost the fish production, improve the fish supply chains, improve facilities for processing and export and take measures to handle the restrictions from the main trading partners. Further the sea food exporters must improve the standards of quality to reduce the possible number of rejection of shipments. These efforts must be

immediately put into action in order to revive the foreign exchange earnings from India's Sea food Exports.

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## PERFORMANCE OF INDIA POST AMID COVID 19

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### Abstract

The novel corona virus, that has grown into a global pandemic has significant social and economic consequences. The pandemic and the lockdown accompanied with it has severe impact on the economy. But there were some sectors that had beneficial impacts. One among them is the 'India Post' - the world's largest postal network. Even though it's a loss making PSU, India Post managed to overcome all the covid challenges and remained full fledged even when the entire nation was locked down. More than 4 lakh employees of India Post were the front line fighters against covid. The present study focuses to summarize the performance of India post amid covid 19 and to study the customers satisfaction of postal services during the pandemic period. The study is basically descriptive in nature and depends on both primary and secondary data. 50 samples were selected from the population (postal customers ) by way of convenience sampling method. Percentage analysis is used for primary data analysis . Secondary data for the study is mainly retrieved from the e-book published by the postal department. The study points out all the initiatives that postal department took in order to overcome the challenges during the lockdown period and how the postal customers benefitted from those initiatives.

**Key Words:** *Covid 19, India Post, Postal initiatives, Doorstep delivery, customer satisfaction.*

### Introduction

If the postal service is serving the larger goal of sustaining democracy in the US, in India, where it works as a bank, pension fund, primary savings instrument and delivery service, it is doing the job of literally saving lives( Shikha Sharma, 2020). Yes, the 166 year old India post was a lifesaver when crores of Indians stayed indoors during the lockdown. Amid coronavirus lockdown , the postal department heroes took risk to deliver letters, parcels, pensions and even people doesn't want to visit branches to withdraw money . All postal services were available at their door step.Leveraging on its well established supply chain and logistics infrastructure, it used cargo flights, Lifeline Udan flights and its own fleet of mail motor vans to deliver essential items including medicines, COVID-19 testing kits and medical equipment including ventilators(The Hindu, June 14 2020).

### Review of literature

The article "Coronavirus| Despite odds, India post ensures essential services during lockdown "(The Hindu 2020), clearly explains the roles played by India Post during the lockdown period. The article is well presented with many statistical data regarding the number of post offices, their revenue updates during the covid period. The article published by BBC " India coronavirus: World's largest postal service turns lifesaver"(2020) illustrates how India post played its crucial role in delivering lifesaving medicines and medical equipments in different states like UP and Gujarat during the lockdown period.

## Objectives

1. To analyse the performance and initiatives of India post amid covid 19
2. To study the customer satisfaction of postal services during the covid period.

## Methodology

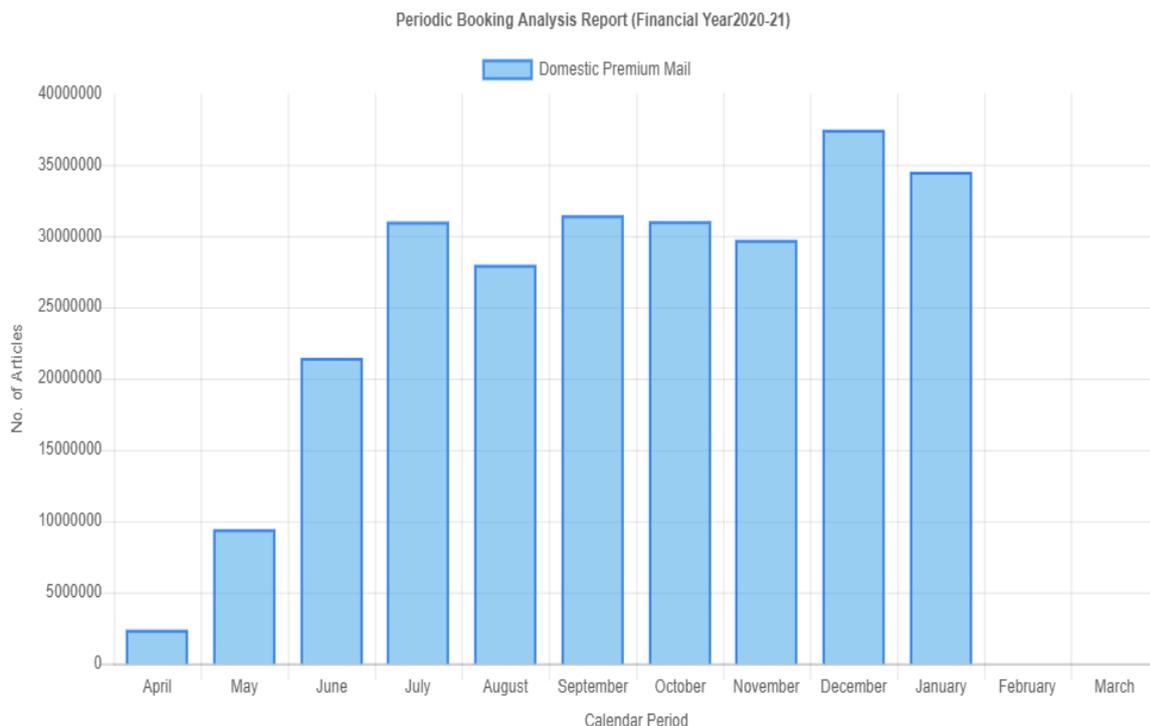
The study is basically descriptive in nature. For the effective conduct of the study, both primary and secondary data is used. Here the population is the entire postal customers in Kottayam district and 50 samples are selected by way of convenience sampling method. Primary data is collected by direct interview method. In order to get an idea about the new initiatives of India post, a personalized interview is also conducted with the post office officials. Secondary data for the study is readily available from the official website of India Post. Journals, magazines and newspapers are also referred for further details. Percentage analysis and likert scale analysis are used for primary data analysis.

## Analysis

### 1.Performance and initiatives of India Post amid covid 19

#### a.Rapid increase in speed post booking

Figure 1: showing the speed post booking



Source: [www.indiapost.gov.in](http://www.indiapost.gov.in)

The demand for postal service during the pandemic period is clear from the above graph. Government enforced nationwide lockdown from 24<sup>th</sup> March 2020 and the number of speed post booking at that period was below 50 lakh, but soon the number has increased and in the month of December 2020 it reached 350 lakhs. During lockdown the general public solely depends on India post for fast and safe delivery.

#### b. Development of mobile applications

“Post Info” is a mobile application which can be used to withdraw money through aadhar enabled payment system. It can also be used for other payment activities like payment of postal life insurance policies, purchase of essential items etc. Service request can be received in this application from the customers who couldn’t reach post offices. As per the information

provided by India Post, they have received more than 55,000 requests for door delivery services. Even some circles developed their own apps and they are “Dak Mitra” app developed by Haryana circle, “Anche Mitra” app launched by Karnataka .

### c. National Road Transport Network

When the public transport suspended during lockdown India Post initiates to start its own road network in order to ensure movement of essential items. With the existing departmental vehicles they launched its Roar Transport Network with 56 long haul nation routes and 266 regional routes that connects 75 major cities in India.

### d. Doorstep delivery service of Digital Life Certificate

On 4<sup>th</sup> November 2020 IPPB has launched doorstep delivery service of Digital Life Certificate to retired Government employees, so that they need not visit the office of pension disbursing agency. Either visiting the nearest post office or through doorstep banking service which is offered by IPPB, they can generate the Life Certificate.

### e. Others

- 255.6 million transactions worth more than Rs.5000 billion were made during the lockdown, through POSB accounts.
- India Post through AePS served more than 3.27 crore beneficiaries.
- 5.375million ATM transactions worth more than Rs. 18 billion
- Indian Postal Payment Band (IPPB) achieved financials worth more than Rs. 360 billion.
- Won award for providing best logistics services during covid 19 lockdown.
- IPPB launches ‘DakPay’ app on 15<sup>th</sup> dec 2020 for better banking experience.
- Delivered more than 80 lakh money orders worth Rs.857 crore and more than 2 crore mails.

## 2. Customer satisfaction of postal services during the covid period

### a. Financial asset owned by respondents

Table 1. Showing financial asset owned by respondents

Financial assets	Frequency	Percentage
SB, RD, TD, MIS,SCSS	31	62
PLI and RPLI	7	14
PPF, SSA, NSC, KVP, Bonds,	12	24

Source : Primary data

- 62% respondents have savings schemes like Post Office Savings Account(SB) , National Savings Recurring Deposit Account(RD), National Savings Time Deposit Account(TD), National Savings Monthly Income Account(MIS) and Senior Citizens Savings Scheme Account(SCSS). 12% of respondents avails tax saving policies like Public Provident Fund Account(PPF), Sukanya Samriddhi Account(SSA) , National Savings Certificates (VIIIth Issue) (NSC) , Kisan Vikas Patra(KVP). Only 7% owns postal insurance [Postal Life Insurance (PLI) and Rural Postal Life Insurance (RPLI)].

**b. Respondents having IPPB account**

Table 2. Showing IPPB account holders among ewspodents

IPPB account holder	Frequency	Percentage
Yes	31	62
No	19	38

Source : Primary data

62% respondents do have an IPPB account and 38% doesn't have an IPPB account.

**c. Respondents having ATM cards of India Post**

Table 3. Showing Respondents having ATM cards

ATM card holder	Frequency	Percentage
Yes	11	22
No	39	78

Source : Primary data

Majority of the respondents have savings accounts and IPPB account but only 22% had availed ATM card facility.

**d.Awareness about Postal initiatives**

Table 4. Showing respondents awareness about Postal initiatives

Factors	Opinion	Extremely aware	Moderately aware	Somewhat aware	Slightly aware	Not at all aware	Total	Likert Value
AePS	X	9	22	6	10	3	50	3.48
	W	5	4	3	2	1	15	
	XW	45	88	18	20	3	174	
DBT	X	1	5	19	14	11	50	2.42
	W	5	4	3	2	1	15	
	XW	5	20	57	28	11	121	
Delivery of essentials	X	10	19	10	4	7	50	3.42
	W	5	4	3	2	1	15	
	XW	50	76	30	8	7	171	
Road Transport Network	X	0	8	7	25	10	50	2.26
	W	5	4	3	2	1	15	
	XW	0	32	21	50	10	113	

Source : Primary data

It could be inferred from the above table that respondents were highly aware of AePS( Aadhar enabled payment system) with a mean score of 3.48 followed by delivery of essentials. They were least aware of Road Transport Network and DBT.

**e.Source of awareness about postal initiatives during lockdown**

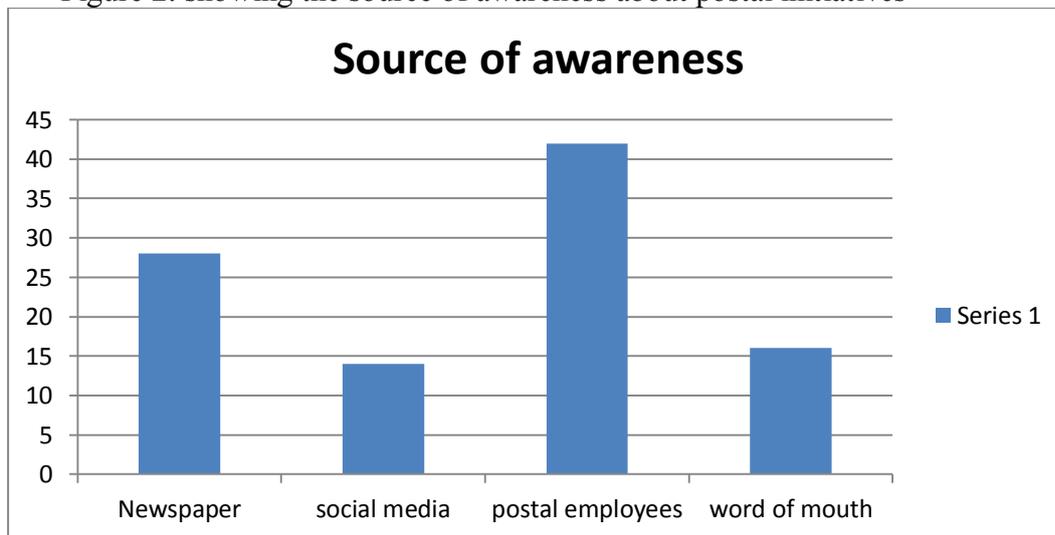
Table 5. Showing the Source of awareness about postal initiatives during lockdown

Source	Frequency	Percentage
News paper	14	28
Social media	7	14
Postal employees	21	42
Word of mouth	8	16

Source : Primary data

Majority of respondents (42%) came to know about the postal initiatives during lockdown through the postal employees. Another major source were newspaper (28%) followed by word of mouth(14%) and social medias(14%)

Figure 2. showing the source of awareness about postal initiatives



Source: Primary data

**f. Services availed during lockdown and there after**

Table 6. Showing the Services availed during lockdown by respondents

Factors	Opinion	Always	Often	Sometimes	Rarely	Never	Total	Likert Value
AePS	X	11	6	17	6	10	50	3.04
	W	5	4	3	2	1	15	
	XW	55	24	51	12	10	152	
DBT	X	5	9	9	10	17	50	2.5
	W	5	4	3	2	1	15	
	XW	25	36	27	20	17	125	
Delivery of essentials	X	9	13	5	12	11	50	2.94
	W	5	4	3	2	1	15	
	XW	45	52	15	24	11	147	
Courier service	X	4	7	19	8	12	50	2.66
	W	5	4	3	2	1	15	
	XW	20	28	57	16	12	133	

Source : Primary data

It could be inferred from the table that, majority respondents had availed Aadhar enabled payment system service. AePS enables the customers to avail financial assistance at their doorstep. The next service which had demand during lockdown was delivery of essentials. The demand for courier service comes next followed by DBT.

**g. Level of satisfaction**

Table 7. Showing respondents Level of satisfaction

Factors	Opinion	Very satisfied	Satisfied	Neutral	Dissatisfied	Very dissatisfied	Total	Likert Value
Availability of postal products	X	11	26	9	4	0	50	3.88
	W	5	4	3	2	1	15	
	XW	55	104	27	8	0	194	
Customer care service	X	4	17	11	15	3	50	3.08
	W	5	4	3	2	1	15	
	XW	20	68	33	30	3	154	
Quality of service	X	9	22	11	6	2	50	5.76
	W	5	4	3	2	1	15	
	XW	45	88	33	12	2	288	
Precautions taken by postman while delivering	X	16	25	6	3	0	50	4.08
	W	5	4	3	2	1	15	
	XW	80	100	18	6	0	204	

Source : Primary data

From the above table it could be inferred that respondents were highly satisfied with the quality of services provided by India post, followed by the precautionary measures taken by the postman while delivering. They were not much satisfied with the customer care service of postal department.

### Conclusion

Measures taken by India Post in order to deal with the pandemic period is really appreciable. Especially their doorstep delivery of pension fund and other essentials like medicines , masks, sanitizers during the lockdown period was really helpful for the society especially the aged ones. When the pandemic badly hits all the sectors, there were some sectors which gained something and India post is one among. From the statistics analyzed it is clear that demand for the products and services of India Posts increased during the lockdown. Departments initiatives like delivery of medicines, medical equipments and essentials, helped to gain reputation. The Road Transport network helped to manage the supply chain, AePS enables the needy ones to do their financial activities effortlessly. Even the illiterates who don't know to use mobile phones and ATM can now withdraw money without moving out of house. Even though it's a loss making PSU, its new steps in the field of financial services have bright future. The 166 year old department have miles to go forward.

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**A STUDY ON THE IMPACT OF COVID 19 ON MSME SECTOR WITH SPECIAL REFERENCE TO KERALA**

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**ABSTRACT**

The Micro, Small and Medium enterprises are considered as one of the important factors for the development of the economy of a country. It is considered as an employment generation machine which helps in fostering equitable and inclusive growth. Presently MSMEs contribute around 30% to the Gross Domestic Product (GDP) of India and provide employment to more than 12 crore people around the country. Kerala is one of the states that in the forefront which give much importance to MSMEs and actively engaged in bolstering this sector. According to MSME Annual Report 2018-19, Kerala stands at 12<sup>th</sup> position in largest number of MSMEs in India. There are around 23.79 lakh units of which, 23.58 are micro-enterprises, generating employment for approximately 44.64 lakh people. Due to the fragmented nature of the lands present in the state Kerala it is more suitable to utilize these lands for creating micro, small and medium enterprises than creating large scale industries. So, Kerala is trying to develop the MSME sector in the state actively. Like all other industries COVID 19 pandemic also adversely affected the manufacturing and MSME sector of the country. The MSME sector faltered due to the pandemic and several MSMEs were under pressure due to lack of funds for the payment of employees, settlement of credit and also for their effective operational activities. This raised the need for strategic management of MSME sector. Authorities devised plans for the development of MSME sector as it is one of the sectors cardinal for the economy and its ginormous contribution to the GDP. This study focuses on the impact of the COVID 19 pandemic in the MSME sector and its future focusing more on the state Kerala. The main aim of the study is to understand the present context of MSME sector and the future potential for the growth of the economy of the country.

Keywords: *Covid 19, Development, Economy, GDP, Kerala, MSME*

**INTRODUCTION**

COVID 19 pandemic is considered as one of the worst economic scenarios that happened after the great depression. It adversely affected most of the industries around the world. MSME sector is one of the most prominent sectors which act as a cornerstone for the development of the economy. MSMEs provide a lot of job opportunities and it is the second-largest employment generating sector after agriculture.

Data collected during the initial days of the pandemic by organizations like ITC (International Trade Centre) states about two-third of the MSMEs reported that the crisis accelerated by the pandemic vigorously affected their smooth functioning of the business. Compared with the large companies the loss due to the corona pandemic is more affected by MSMEs and about 40% of the total MSMEs around the globe about to be shutdown permanently within months. Service companies had been the hardest hit around the world.

The COVID 19 pandemic resulted in a downbeat in the MSME sector of Kerala. As per MSME annual report 2018-19, Kerala has the 12<sup>th</sup> largest number of MSMEs in India and provides employment opportunities to more than 50 lakhs people. The pandemic has grievously dented the MSME sector. About 50 percent of the MSMEs have witnessed a 20 to 50 percent impact on their earnings. The unexpected lockdown implemented by the government made the stakeholders and MSME owners under pressure because no one has ever faced such a situation. The prolonged lockdown led to various issues like problems in

the supply of finished goods, raw material procurement, and the limited supply of laborers, etc...From April to June 2020, the sector faced challenges related to debt repayments, wages/salaries, statutory dues, etc... Compared with MSMEs led by men, women-led MSMEs are more affected.

The study has four sections which are as follows: the second section presents the review of literature; the third section covers the research methodology and the fourth section discusses the impact assessment and analyse and the ending of the report comes with Kerala government initiative to support the MSMEs in Kerala and the recommendations.

## REVIEW OF LITERATURE

The ongoing COVID-19 pandemic is causing unprecedented disruptions to economic activities across all part of India, and Kerala is no exception. The lockdown and the ongoing restrictions have both demand-side and supply-side effects on the MSME sector. The supply shocks will further create demand-side effects by reducing the income of the Kerala economy. There are a lot of studies carried out around the various aspects of MSMEs by different researchers and scholars.

**WTO (2020)** assessment on the primary issues that have hindered the progress of MSMEs towards more inclusive trade is mainly the demand shocks and supply chain disruptions augmented by the pandemic as well as the small size of MSMEs that restricts its growth prospects.

**MicroSave Consulting (2020)** via quantitative analysis of 152 respondents alongside a qualitative panel of 15 MSMEs -73% of businesses reported reduced customer footfall while 74% of fall in income levels; nearly half of the enterprises reported decreased supply volume and most firms reported disruptions in the food supply.

**Rathore (2020)** to examine the health of the MSME sector comprising of 361 enterprises, the pandemic caused 55% loss in employment and a record decline in average production from 75% to just 11%.

**ASSOCHAM (2020)** promulgated mobility restrictions on people and goods to be one of the main reasons that have adversely affected workforce capacity and disrupted the supply chain.

**The UNO (2020)** highlights the inadequacy of MSMEs to address and mitigate the pressures and downsides of such a sudden calamity and the need for policymakers to include plans to keep businesses afloat and ensure their survival not only in case of natural disasters but also in case of socio-economic disruptions that result from epidemics and pandemics like Covid19 in today's time.

**Mohsin Shafi, Junrong Liu, Wenju Ren (2020)** states in their study that COVID 19 outbreak and lockdowns several MSME has been severely affected, and businesses in this sector were facing various issues related to finance (67.93%), supply chain disruption (47.83%), decrease in demand (44.02%), reduction in sales and profit (38.04% and 41.85% respectively)

**Sipahi (2020)** suggested transforming the crisis caused by the pandemic into an opportunity to enhance the production levels in some specific sectors (primarily, the medical sector products such as ventilators, PPE kits, medicines, etc.)

**FICCI (2020)** measures which constitute deferring debt and interest payments, higher provision of working capital credit by banks, interest rate subvention and norms relaxation that can assist MSMEs to get rid of short-term compensations, and can thereby enable them to continue their business operations.

**Ghosh (2020)** remarked that the Government adopted measures are majorly supply-side regulations enforced to inject liquidity while demand-side steps are required to rectify the economic recession.

## OBJECTIVES

- To understand the impact of COVID 19 in the MSME sector
- To identify the problems faced by MSMEs during the pandemic
- To know about the remedial measures that are taken for the improvement of this sector

## RESEARCH METHODOLOGY

To fulfil the objectives of the research paper the study was conducted based on secondary data. It includes published annual report of MSME by government, journal, blogs, newspapers and other online resources between the period 2020-2021. The parameters for evaluation are reduction in financial resources, unemployment rate etc.

## ANALYSIS

The Indian Government has introduced MSME or Micro, Small, and Medium Enterprises in agreement with the Micro, Small, and Medium Enterprises Development (MSMED) Act of 2006. These units engaged in different processes such as manufacturing, preservation, and processing of goods.

In India, MSMEs contribute nearly 10% to the GDP, more than 40% of the manufacturing output and the country's exports. It won't be wrong to refer to them as the 'Backbone of the country'.

MSME is an important sector that gives an immense contribution to the country's socio-economic development. It acts not only as an employment generator but helps to accelerate the development in the nation's rural and backward areas. According to the annual report by the Government (2018-19), there are more than 6 crore MSMEs in India.

MSME sector is a highly dynamic sector in the Indian economy and they produce or manufacture goods for both international and domestic markets. With the collaboration of concerned ministries, stakeholders and different state governments they are at the forefront of the upbringing of rural areas.

MSMEs are the important employment creator for people in rural areas and this resulted in the industrialization of these areas. This was possible with low capital cost compared to large industries. This sector also enormously contributed towards its socio-economic development. MSMEs play a major role in boosting a nation's development by facilitating various factors include the requirement of low investment, operational flexibility, reducing imports, increasing domestic production etc.

## MSME OLD AND NEW DEFINITION

Micro, Small and Medium Enterprises Development (Amendment) Bill, 2018, redefined the MSME based on the annual turnover from manufacturing or service providing enterprises.

The old MSME definition was based on investment in plant and machinery or equipment. As per the new definition, the criteria changed to investment and annual turnover.

## Existing and Revised Definition of MSMEs



Existing MSME Classification			
Criteria : Investment in Plant & Machinery or Equipment			
Classification	Micro	Small	Medium
Mfg. Enterprises	Investment < Rs. 25 lac	Investment < Rs. 5 cr.	Investment < Rs. 10 cr.
Services Enterprise	Investment < Rs. 10 lac	Investment < Rs. 2 cr.	Investment < Rs. 5 cr.
Revised MSME Classification			
Composite Criteria : Investment And Annual Turnover			
Classification	Micro	Small	Medium
Manufacturing & Services	Investment < Rs. 1 cr. and Turnover < Rs.5 cr.	Investment < Rs. 10 cr. and Turnover < Rs.50 cr.	Investment < Rs. 20 cr. and Turnover < Rs.100 cr.

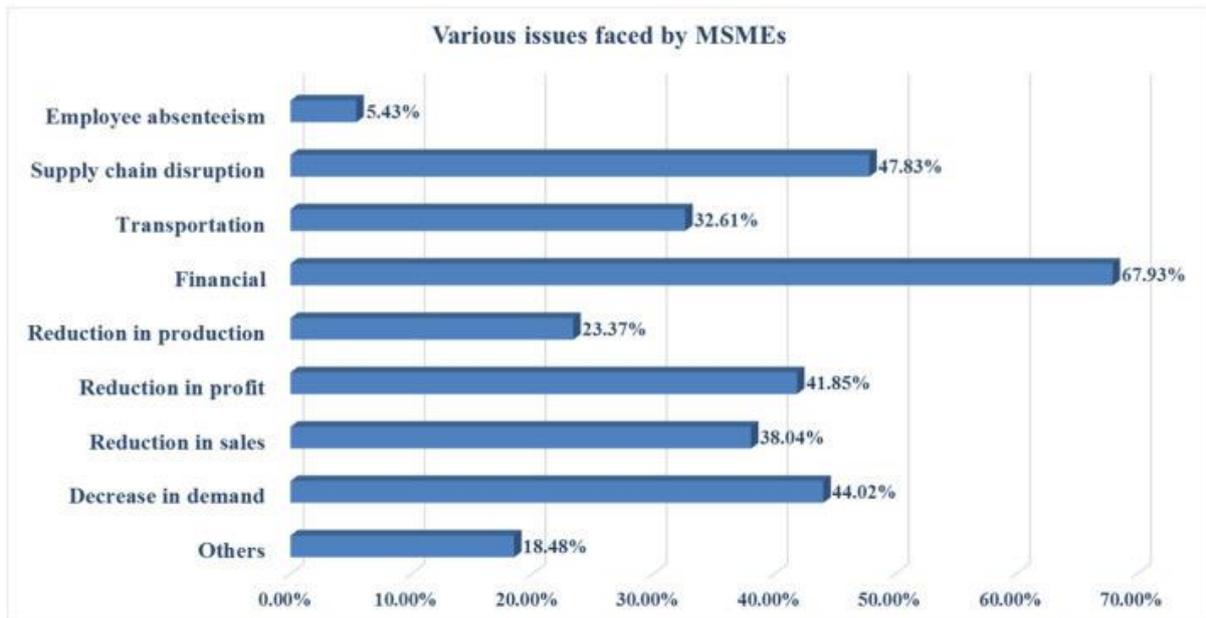
Table 1 New definition of MSME

The advantages derived from the reclassification of MSME are transparency in operations, non – discriminatory and objective nature. There would be also no need for frequent inspections to check the investment in plant and machinery.

The pandemic impacted the MSME sector also. In Kerala, MSMEs helped in promoting the growth and development of various industries such as khadi, village, and coir industries. Kerala MSME is renowned for coir manufacturing, handloom industries, khadi and tourism. The coir industry is an agro-based traditional industry and plays an important role in the state's MSME ecosystem.

Considering the geographical features of the state of Kerala setting up MSMEs is more suitable than establishing large-scale industries. The government trying to bolster the MSME growth in the state by utilizing fragmented lands in the state. The growth in this sector was also driven by the factor that the heavy investment made by Kerala in communication networks, infrastructure, skill development, connectivity Over the years. Since 2016, more than 50000 MSMEs were set up.

It was one of the major sectors that provided employment on a large scale and the pandemic affected the sector badly. It led the MSME sector employees to lose their jobs and drastic economic loss. There was a huge reduction in the number of employees available for MSME jobs during the lockdown because the reduced availability of migrant workers resulted from transportation issues and interstate travel issues. After the lockdown, most of the MSMEs in Kerala started operations but only a few percentages are producing at least half of their capacity- largely on account of poor demand, logistics issues and their own financial troubles like liquidity crunch.



Graph 1 Various issues faced by MSMEs

### Logistics issues due to pandemic

In the impact of COVID 19, pandemic Kerala was forced to lockdown like other states. As a result, the supply chain has virtually come to a standstill. Some of the packet food producers were struggled to transport their goods due to the restrictions on transportation. Though the government has permitted the movement of essential goods, the unavailability of sufficient labour at the loading and unloading point is also created a situation much worse.

### Liquidity crunch due to pandemic

One another way of covid 19's impact on MSME's is the liquidity problem. According to recent reports by International Financial Corporation in the Indian MSME sector, there is a credit gap of 240 billion dollars. At the time of the COVID pandemic, this liquidity crisis has reached a peak position. Similar issues were also faced by the MSMEs in Kerala. Because of the lockdown, many MSME units couldn't work properly that failed loan payment and other debts. Even though the government took initiative for the moratorium and other measures, it only helped a portion of the MSME sector because these units depend mainly on unorganised financial institutions.

### Poor demand due to pandemic

Another big issue was faced by my MSMEs during the pandemic was the demand reduction. Access to the marketplace is crucial for the growth of any enterprise. Most of the MSMEs of India in pre-COVID times were known to carry out their operations solely through the brick-and-mortar model which is a hindrance for outreach and productivity. The pandemic increased the depth of this problem.

### Central and state government initiatives to support MSMEs

#### Central govt

- Reduction in CRR
- Rescheduling of payments (3 months moratorium)
- Classification as special mention account (SMA) and non-performing assets (NPA)
- Extension of realization period of export proceeds
- The MSME ministry launched a portal called the CHAMPIONS (Creation and Harmonious application of Modern Processes for Increasing the Output and National Strength) for assisting the MSMEs.

**Kerala state government and various departments**

- A special package of 3434 crore rupees for the resurgence of the MSME sector against the backdrop of the COVID 19 pandemic
- KSIDC (Kerala State Industrial Development Corporation) offered a moratorium period of 3 months without any penal interest and allowed loan amount up to 50 lakhs.
- Introduction of “**VYAVASAYA BHADRATHA**” scheme for interest subvention for 6 months for new/additional term loans/working capital loan.

**FINDINGS**

- MSMEs are one of the important sectors that act as an important driver for the economic development of a country.
- MSMEs are one of the prominent sectors that employ a large chunk of people in a country.
- MSME sector is one of the sectors terribly hit by the pandemic both globally and nationally.
- COVID pandemic impacted this sector very badly resulted in economic loss, unemployment etc...
- There was a huge decline in the actual production compared to the actual production capacity.
- Kerala stands at 12<sup>th</sup> position in India on the total number of MSMEs.
- The major problems faced by MSMEs in the state of Kerala were due to supply chain difficulties, liquidity and credit crunch and poor demand induced by the lockdown.
- The reduced availability of migrant workers also affected small enterprises due to strict lockdown and interstate travel difficulties.
- Small scale industries like coir, khadi etc... were hugely affected by the pandemic in Kerala.
- There was a difficulty in financing for MSMEs because the fund comes from unorganised and informal financial institutions.
- In MSMEs, service providing companies affected largely.
- COVID time uncertainties created too many defaulters in loan re-payment.
- Huge income loss to the Kerala economy.
- Both the central government and Kerala state government has taken various supportive measures to boost the MSME sector.
- The various analysis shows that it takes time MSMEs to stabilise after the pandemic impact.

**SUGGESTIONS**

- Educate the people especially in the rural areas about the various packages and schemes introduced by the government.
- Provide interest subsidised working capital loans to MSMEs for less than 1 year.
- Tax Deferment can be made to ease the liquidity constraints faced by the MSMEs.
- Govt. may encourage MSMEs to adapt to the changing business environment by shifting their business model.
- The government may start initiatives to encourage and support MSMEs in the lowest tiers of government.
- Convergence of various Govt, schemes and to be controlled by the nodal MSME ministry.

## CONCLUSION

MSME sector often considered as the backbone of every economy which significantly contribute to the development of GDP and a major employment creator especially to the people in the rural areas. In Kerala state also, the role of MSME is inevitable. The study was conducted to understand and evaluate how the pandemic has affected the MSME sector and how the authorities have responded to the downfall of MSMEs during the pandemic.

In our study, we found that MSMEs have been severely affected due to the outbreaks of COVID and COVID induced lockdown. Many of the small-scale units are facing the difficulties of balancing the production and the required money for the operation, in the lockdown period and the weaker demand and the lower consumer confidence increased the depth of that uncertainty. In Kerala also MSMEs faced numerous issues such as supply chain issues, liquidity problems, poor demand, financial issues, economic loss etc...most of the MSME units could perform 50% less than the actual capacity and that brought a huge loss to the economy as well as the MSME operators. Meanwhile, there are various measures taken by both central and state governments to bring back the old days of MSME.

So, our studies on the field of MSMEs impact from COVID provide a detailed insight into the troubles faced by them. Based on the various secondary data sources it is evident that the pandemic and the aftereffects shattered the Kerala MSMEs and we can expect that the sector may have a new breath from the different remedial measures taken by the authorities.

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