UPSHOT OF COVID-19 ON MSME SECTOR IN KERALA -TRIVANDRUM IN SPECIFIC

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Abstract

In Kerala, the MSME sector has played a vital role in economic and social development as these are essentially dependent on traditional inherited skills and mostly use local resources. But the hard blow of COVID-19 has made this sector struggle for its sustainability. The present study aimed to learn the influence of COVID-19 on MSME sector in Trivandrum. The primary data were collected from various samples in Trivandrum district with the help of a structured questionnaire and Google Forms. The collected data were analyzed with the help of statistical tests namely one sample t- test, goodness of fit test, and mean score. It was found that all the financial problems had a significant impact on MSMEs during the COVID-19, cost reduction measures adopted by MSMEs during the pandemic had different effects on their revival, and government measures aimed at revival have had similar impacts and are interconnected. Entrepreneurs unanimously agree on the need for more support to resurrect closed businesses, reduced tax rates for units in the revival stage, tax rebates for affected individuals, and the offsetting of loans and interest incurred during the pandemic.

Keywords:- MSME, COVID-19, revival, lockdown, Government support.

he MSME sector, considered the backbone of Indian economy, has been redefined under the MSME Act 2006 in India, aiming to promote competitiveness and development. In recent years, the MSME sector has

consistently shown higher growth rates compared to the overall industrial sector in India.

However, due to their size, limited resources, and inability to adapt to sudden changes, MSMEs have been particularly vulnerable during the COVID-19

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pandemic. The global impact of COVID-19 has disrupted communities, businesses, and organizations, leading to supply chain disruptions and economic challenges.

MSMEs are vital drivers of economic growth and social development, particularly in regions like Kerala, providing employment opportunities for over 50 lakh people and stimulating economic development. Despite being the 12th largest in India, MSMEs in Kerala faced severe challenges during the COVID-19 lockdown, including cash crunch, business shutdowns, and job losses. The fragmented nature of the state makes the MSME sector highly vulnerable to economic crises. Government efforts to revive the sector have not fully addressed the issues, leaving MSMEs struggling for stability. The pandemic severely affected MSMEs in Kerala, causing transportation issues, supply chain disruptions, and liquidity crunch. Many MSMEs rely on unorganized financial institutions for support, and those operating solely through brick-andmortar models faced the worst effects, lacking access to customers and the market. However, some MSMEs have adapted by focusing on essential products, leading to increased demand and growth opportunities.

Reviving MSME sector is essential for the overall economy, given its significant contribution to GDP and employment. Therefore, it is important to examine the importance of the MSME sector to the Kerala economy, the challenges it faces, and the impact of COVID-19 on it. This study aims to analyze the influence of COVID-19 on the MSME sector in Trivandrum, considering the financial challenges encountered by the MSME, different cost reduction strategies for recovery, and government measures for revival.

Objectives of the Study

The study was undertaken with the general objective to understand the influence of COVID-19 in the MSME Sector in the district. The following are the specific objectives:

- 1. To assess the financial challenges encountered by the MSME sector during the COVID-19 pandemic.
- 2. To analyze the impact of different cost reduction strategies for recovery.
- 3. To evaluate the effectiveness of government measures for revival.
- 4. To investigate potential variations in business problems faced by MSMEs during the pandemic.
- 5. To gather insights on the perception of government support needed for affected businesses.

Hypotheses

- H0₁: There is no significant difference in the hypothesized problem and the financial problems of MSME entrepreneurs during COVID 19.
- 2. H0₂: There is goodness of fit in the cost reduction measures adopted during the pandemic.
- H0₃: There is goodness of fit relation in the measures from government to help recovery.

- 4. H0₄: There is goodness of fit in business problems faced during pandemic.
- H0₅: There is goodness of fit relation in Opinion on government support to be given to the affected business enterprises.

Research Methodology

The present study is descriptive and analytic in nature as it was aimed to learn the influence of COVID 19and the problems and prospects of MSME sector in Trivandrum district.

Sample Design

For this study, a random sample of 75 respondents from various parts of Trivandrum district were selected conveniently, who were the representatives of the target group required for the study.

Collection of Data

The primary data were collected from various samples in Trivandrum district with the help of a structured questionnaire and Google Forms. Informal interviews were also made to enrich the study. The secondary data were collected from the Annual Report of MSME, books, journals, research articles, working papers, published and unpublished theses, online publications, newspapers etc. The scope of the World Wide Web for collecting data has also been exploited well.

Data analysis and inferences

Analysis of Data

The collected data were tabulated and analysed with the help of statistical tests namely 'one sample t- test' and 'goodness of fit test'. Mathematical and statistical tools like percentage and scaling with mean scores were also used. The processed data were analysed, interpreted and presented using charts and graphs.

Discussion

Objective 1: To assess the financial challenges encountered by the MSME sector during the COVID-19 pandemic.

Mean score of various financial problems

The mean score is an important analytical tool, where the higher the mean score higher the expectation.

Table 1 explains the interpretation of the mean score of different variables that come under the head financial problems during the period of pandemic. The mean score obtained for financial problems related to interest has the highest mean score of 3.533. This is followed by the problems of repayment of loans and payment to creditors with a mean score of 3.467 and 3.320 respectively. Financial problems related to Tax, license fees and other payments to the government exchequer have the lowest mean score.

One sample t-test was conducted to identify whether statistically significant difference exist between the mean score and its population mean. The results of one sample t-test are depicted in the above table. The populations mean (hypothesized value) is an assumed figure of 3.30. The mean score and standard deviation arrived from the data is 3.317667 and 0.151264 respectively. Standard error of the data is 0.061753.



Figure 1

Mean score of various financial problems during COVID-19

Table	1
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Hypothesis Test (one sample t-test) Result

Mean vs Hypothesized Value				
Hypothesized value	3.300000			
Mean score	3.317667			
Std. deviation	0.151264			
Std. error	0.061753			
N	6			
d.f.	5			
Т	0.29			
p-value(two-tailed)	.7863			

Source: Primary Data

The following hypothesis was tested

H01: There is no significant difference in the hypothesized problem and the financial problems of MSME entrepreneurs during COVID 19.

- One Sample t-test Value = 0.29
- P value = 0.7863
- Result = Not Significant

The test result obtained is not significant and the null hypothesis is accepted because the 'p-value' is greater than 0.05. Hence it is proved that there is no variation in the financial problems from the population mean of 3.30. Therefore, it can be concluded that during the COVID phase, MSMEs faced various financial problems viz. salary, wages, interest, rent, repayment of loans, payment

to creditors, tax, license fees, and all other payments to the government exchequer, in the same intensity. This means that all these financial problems had almost equal impact on MSMEs and can be considered as burning issues. There is no single problem that has more impact on entrepreneurs, even though different financial problems have different mean scores.

Objective 2: To analyze the impact of different cost reduction strategies for recovery, evaluate the effectiveness of government measures for revival

MSMEs do not have opportunity to implement cost reduction measures in a large scale as they operate their business with limited fund and resources. Large enterprises can easily implement such type of strategies but this is not the case of MSMEs. But in order to recover and revive from the mishap they have adopted some cost reduction measures.

Chi-square	34.32
Degree of freedom	6
p-value	0.000

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The following hypothesis was tested:

H02: There is goodness of fit relationship in the cost reduction measures adopted during the pandemic.

Result: Significant

The hypothesis is tested using goodness of fit test and the chi- square value so arrived is 34.32. The corresponding p value is 0.000, which is less than 0.05. Hence the result is significant and the null hypothesis is rejected. Alternate hypothesis that is, there is no goodness of fit relationship in the cost reduction measures adopted during pandemic, is accepted.

During COVID pandemic, MSMEs have adopted numerous cost reduction measures (namely reduce the number of staff, completely freeze recruitment of new staff, reduce or defer the salary/ wages and decrease staff, development cost, avoid/ cut annual bonuses, implement compulsory leave or holidays without pay, reduce operational costs and rent costs, reduce related costs to upgrading, acquiring and maintaining fixed assets) and each measure

Goodness of The Test on cost reduction measures					
Observed(O)	Expected(E)	О -Е	(O-E) ² / E	% of chi- square	
21	16.710	4.290	1.101	3.21	
21	16.710	4.290	1.101	3.21	
24	16.710	7.290	3.180	9.27	
5	16.710	-11.710	8.206	23.91	
11	16.710	-5.710	1.951	5.69	
30	16.710	13.290	10.570	30.80	
5	16.710	-11.710	8.206	23.91	
117	116.970	0.030	34.316	100.00	

Table 2 Goodness of Fit Test on cost reduction measures

Source: Primary Data

has different effect on revival. Cost reduction measures in relation to reduction of operational cost (electricity, water, internet, mail, logistics, transport) and rent costs were prioritised. This is followed by reduce or defer the salary/wages and decrease staff development cost. New recruitments were totally frozen and the business was carried out only with existing staff.

Objective 3: To evaluate the effectiveness of government measures for revival

MSMEs may have the opinion regarding the area and intensity of government support they need to perk up their business from this pandemic phase and to protect them in the future concerning such uncertain events. Recovery measures are of great importance and will help the MSMEs in formulating further strategies.

chi-square	8.54
Df	5
p-value	.1288

The following hypothesis was tested

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H03: There is goodness of fit relation in the measures from government to help recovery.

Result: Not significant

The hypothesis was tested using goodness of fit test and the chi- square value so arrived is 8.54. The corresponding p value is 0.1288, which is greater than 0.05. Hence the result is not significant and the null hypothesis is accepted. There is goodness of fit relation in the measures from government to help recovery.

There is no variation in the measures adopted by government in recovery of MSMEs. This means that the measures taken by government, viz. direct government subsidies, favorable loans, tax postponement, new package of economic measures and more subsidies would help the recovery. All these measures have almost same effect for the revival and associate each other.

Objective 4: investigate potential variations in business problems faced by MSMEs during the pandemic.

During the pandemic the MSMEs have faced a lot of business problems. Some of the important business problems

Observed(O)	Expected(E)	O – E	(O-E)²/ E	% of chi-square	
71	59.000	12.000	2.441	28.57	
62	59.000	3.000	0.153	1.79	
56	59.000	-3.000	0.153	1.79	
42	59.000	-17.000	4.898	57.34	
66	59.000	7.000	0.831	9.72	
57	59.000	-2.000	0.068	0.79	
354	354.000	0.000	8.542	100.00	

Table 3					
Goodness of	Fit Test	on	measures	from	government

Source: Primary Data

are reduction of orders, inability to deliver existing orders, transportation problems, non-availability of sufficient stock, insufficient protection materials, equipment & measures (sanitizer, mask etc...)

chi-square	16.80
Degree of freedom	4
p-value	.0021

The following hypothesis was tested

H04: There is goodness of fit in business problems faced during pandemic.

Result: Significant.

Hypothesis is tested using goodness of fit test and the chi- square value so arrived is 16.80. The corresponding p

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value is 0.0021, which is less than 0.05. Hence the result is significant and the null hypothesis is rejected. In this context, the alternate hypothesis is, 'there is no goodness of fit in business problems faced during the pandemic', is accepted.

During COVID period there is significant variations in the business problems faced by MSMEs. Major problem experienced was the transportation problem. There was a period of complete lock down which put a halt of all business transportation. The next prominent difficulty faced during the period was the 'non-availability of sufficient stock' and is followed by 'struggle in reduction in orders' and the 'inability to satisfy the existing orders'.

Dusiness problems faced during pandemie					
Business problems	Observation	Percentage			
Reduction of orders	50	67			
Inability to deliver existing orders	45	60			
Transportation problem.	70	93			
Non-availability of sufficient stock	53	71			
Insufficient protection equipment & measures	30	40			
(sanitizer, mask etc)					

Table 4 Business problems faced during pandemic

Note: Multiple responses in all cases Source: Primary Data

Table 5

Goodness of Fit lest on business problems					
Observed(O)	Expected(E)	O – E	(O-E)²/ E	%ofchi-square	
50	49.600	0.400	0.003	0.02	
45	49.600	-4.600	0.427	2.54	
70	49.600	20.400	8.390	49.95	
53	49.600	3.400	0.233	1.39	
30	49.600	-19.600	7.745	46.11	
248	248.000	0.000	16.798	100.00	

Goodness of Fit Test on business problems

Source: Primary Data

Objective 5: To gather insights on the perception of government support needed for affected businesses.

chi-square	3.35
Df	3
p-value	.3408

The following hypothesis was tested

H05: There is goodness of fit relation in opinion on government support to be given to the affected business enterprises.

Result: Not significant

Hypothesis is tested using goodness of fit test and the chi- square value so arrived is 3.35. The corresponding p value is 0.3408, which is greater than 0.05. Hence the result is not significant and the null hypothesis is accepted, there is goodness of fit relation in opinion on government support to be given to the affected business enterprises.

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All entrepreneurs have same opinion to provide more support to re-open the business already closed down, reduce the tax rates to those units which are in revival stage for some time to come, provide tax rebate to the affected people, set-off loans and the interest due/ rose during the pandemic.

Key Findings

1. The decision arrived by conducting one sample t-test to test is that; there is no variation in the financial problems from the population mean of 3.30. Therefore, it can be concluded that during the COVID phase, MSMEs faced all the financial problems namely salary, wages, interest, rent, repayment of loan, payment to creditors, tax, license fee and all other payments to the government exchequer, in the same intensity. This means that all these

Opinion on government support to be given to the affected business enterprises

Figure 2



Contraction of the test of government support						
			(O-E) ² /	% ofchi-		
Observed(O)	Expected(E)	О-Е	E	square		
47	55.750	-8.750	1.373	41.00		
65	55.750	9.250	1.535	45.82		
59	55.750	3.250	0.189	5.66		
52	55.750	-3.750	0.252	7.53		
223	223.000	0.000	3.350	100.00		

Table 6 Goodness of Fit Test on government support

Source: Primary Data

financial problems had almost equal impact on MSMEs and can be considered as burning issues.

- 2. Goodness of fit test conducted accepted that there is no goodness of fit relationship in the cost reduction measures adopted during pandemic. During COVID pandemic, MSMEs have adopted numerous cost reduction measures and each measure has different effect. on revival. Cost reduction measures in relation to reduction of operational cost (electricity, water, internet, mail, logistics, transport) and rent costs were prioritised. This is followed by reduce or defer the salary/wages and decrease staff development cost. New recruitments were totally frozen and the business was carried out only with existing staff.
- 3. There is goodness of fit relation in the measures from government to help recovery. This means that there is no variation in the measures taken by government, namely direct government subsidies, favorable loans, tax postponement, new

package of economic measures and more subsidies, that would help the recovery. All these measures have almost same effect for the revival and associate each other.

- There is no goodness of fit in 4. business problems faced during the pandemic. During COVID period there is significant variations in the business problems faced by MSMEs. Major problem experienced was the transportation problem. There was a period of complete lock down which put a halt of all business transportation. The next prominent difficulty faced during the period was the 'non-availability of sufficient stock' and is followed by 'struggle in reduction in orders' and the 'inability to satisfy the existing orders'.
- 5. There is goodness of fit relation in opinion on government support to be given to the affected business enterprises. All the entrepreneurs have same opinion to provide more support to re-open the business already closed down, reduce the tax rates to those units which are in revival stage for some time to come,

provide tax rebate to the affected people, set-off loans and the interest due/ rose during the pandemic.

Suggestions for Perfection

- 1. Governments should implement tailored revival measures based on the sternness of the impact of COVID-19 on specific industries, ensuring that support measures match the intensity of disruption experienced by MSMEs.
- 2. MSMEs should acquire more knowledge, training and awareness regarding various opportunities that can be explored to establish an online presence in various business operations. This create strong digital ecosystem and establish a strong social media presence. Thereby cost can be reduced.
- 3. The government should appoint a nodal agency with representatives from MSMEs, local governments and industries department, to look after the issues in this sector real time to provide immediate support to the affected people. Convergence and divergence of various central and state government schemes are to be made by this agency. It will help to revive this sector rapidly.

Conclusion

MSMEs are crucial for the socioeconomic development of every region, but the COVID-19 pandemic caused unprecedented loss of GDP and employment in Kerala. The pandemic led to challenges such as reduced turnover, financial problems like interest and salary payments, and disruptions in the supply chain and workforce availability. Government has initiated various schemes in order to provide them support but these have not reached the deserving hands. It was found that the relief package was not sufficient to compensate for the losses that faced by the entrepreneurs of MSMEs. To adapt to the changing economy, some MSMEs have introduced online modes of operation, but many have struggled due to the unexpected nature of the pandemic and inadequate government support. Proper awareness programs and ongoing monitoring systems are needed to address these issues, along with tackling fundamental problems like registration issues, credit constraints, and inadequate infrastructure. However, the study's limitations include its limited scope to the Trivandrum district and the inability to generalize results due to data analysis being based only on respondents' opinions in that area.

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