

Surviving the Wrath of Nature: A Study on the Impact of Lockdowns on Indian MSME Sector

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Abstract

The Covid-19 pandemic has left its impact on all sectors of the economy, but nowhere is the hurt as much as the Medium, Small and Micro Enterprises (MSMEs) of India. All anecdotal evidence available, such as the hundreds of thousands of stranded migrant workers across the country, suggests that MSMEs have been the worst casualty of Covid-19 induced lockdown. In order to assess this impact, this study attempts to understand the position of MSMEs in India post lockdown through PBIT and EPS. In addition, secondary data of MSMEs of the past five years was compared with the post lockdown period with the help of panel regression and T-test. Further findings suggested that MSMEs are not actually at the worst phase, instead their revenue and EPS is increasing, signifying that MSMEs has put in more effort to boost their business during this period.

Keywords: MSME, PBIT, EPS, Lockdown, Covid-19 ₹

1. Introduction

India is regarded as an agrarian economy; however, the role of the second largest employment generator, i.e., the Micro Small and Medium Enterprise (MSME) sector, cannot be ignored. In India, sixty-three million MSMEs employ approximately 110 million individuals (Tripathi, 2020). The said sector will play a catalyst in enabling India to reach its goal of becoming a \$5 trillion economy in the next three years (Khurana, 2020). With a massive network of enterprises, the MSME sector is the Indian economy's key growth driver, accounting for approximately 45 percent of manufacturing output, upwards of 40 percent of exports, more than 28 percent of GDP, and employing approximately 111 million individuals (Srivastava, 2020).

This forecast was made before the nationwide lockdown in 2020. The official announcement of a complete lockdown pulled the MSME sector into random times, where nobody had experience dealing with such a situation. The prolonged lockdown had a detrimental effect on finished products, raw material sourcing, and employee availability to engage in production and distribution networks (Misra, 2020). As a precautionary step, the government of India (GOI) amended the definition of the MSME sector to sustain and, in some cases, boost their performance. With effect from 1st July 2020, the revised definition of MSME is shown in Table 1 below. The change in definition is viewed as a welcome step by financial analysts. Tripathi (2020) expects approximately 50 per cent contribution of the MSME sector in India's GDP in coming years. The growth potential of the Indian MSME sector remains unexplored and is one of the factors why public policies are now more divergent toward creating a robust ecosystem.

Table 1
Revised definition of MSME

Manufacturing and Service Sector	
Enterprise	Level of Investment
Micro	“The investment in Plant and Machinery or Equipment does not exceed one crore rupees and turnover does not exceed five crore rupees”
Small	“The investment in Plant and Machinery or Equipment does not exceed ten crore rupees and turnover do not exceed fifty crore rupees”
Medium	“The investment in Plant and Machinery or Equipment does not exceed fifty crore rupees and turnover does not exceed two hundred and fifty crore rupees”

Source: MSME (2020)

India has witnessed two lockdowns during the pandemic phase. The first lockdown was a complete nationwide lockdown for three months (Gettleman & Schultz, 2020), and the second lockdown was a partial state-wise curfew. The former lockdown witnessed complete shut-down of all non-essential business (Sheth, 2020), latter witnessed no or very few restrictions on non-essential business services. Being home to 1.3 billion people, India had no other option but to bring the nation to a standstill during the first wave of the pandemic. The second wave of pandemic gave India a year to understand the virus and adopt appropriate behavior to curb the spread. Owing to this, fewer restrictions were observed during the second wave.

Indian economy displayed the worst performance in terms of GDP, with the rate falling by 23.9% in April-June 2020 quarter (Ray, 2020). However, the third quarter of FY21 showed an increase in GDP after witnessing two consecutive periods of decline (ET Now, 2020). The pandemic spread across a highly global world with integrated manufacturing networks and the financial industry. The impact of the pandemic on the Indian market was enormous because of the stringent lockdown and India's convergence with the rest of the globe (Sahoo & Ashwani, 2020). The pandemic has had a deleterious impact on the Indian economy. For instance, the consumption and purchasing power was significantly reduced, corporate performance lowered, threats to the banking industry, and the survival of the MSME was questionable (Pradhan et al., 2020). Covid-19, with a specific focus on MSMEs, triggered a downward trend in business performance, which eventually impacted the supply side, which include job termination and the risk of non-payment of loans. The pandemic has had a negative impact on the majority of MSMEs, resulting in a reduction of sales, financing issues, concerns with distribution, and inability to secure raw materials (Mishra et al., 2021). On the other end of the spectrum, the pandemic had compelled many people, including those who had previously opposed the use of digitalization (including banking services), to embrace the use of online services (Khidhir, 2020). Customers adopted online shopping as a result of the Covid-19 pandemic, as demonstrated by the fact that approximately 49 percent of Indian online customers intend to make more online purchases in the coming years (Mansur, 2020). Similarly, businesses selling groceries, medical drugs, bill payments, and online learning have seen a significant increase in digital payments (Tafti et al., 2020).

Considering that pandemic has shown two sides of a coin, it becomes imperative to understand the impact of Covid-19 on the performance of MSME sector in India. As discussed earlier that India witnessed two lockdowns, the present research is undertaken with the objectives to:

1. Compare the performance of the MSME sector in India during the complete lockdown and the partial lockdown.
2. To understand whether the manufacturing sector or service sector MSME's were impacted more during these two periods.
3. To evaluate the role of the financial package announced by the government of India for the MSME sector will be analyzed.

2. Role of MSMEs in Indian Economy

Micro, Small, and Medium Enterprises (MSMEs) play a multi-dimensional and central role in the economic profile of India. MSMEs also play a significant role in cultivating entrepreneurship and business innovation (Alaguraja & Nedumaran, 2020), and also serve as engines of inclusive growth, employment generation, and regional development.

Firstly, MSMEs are an engine of employment creation, particularly among skilled and semi-skilled workers. Uma and Anbuselvi (2023) emphasize that MSMEs are major contributors to national employment creation, involving almost 30% of the labour force in India. Their labour-intensive approach guarantees modest capital outlays generate high employment multipliers, particularly in rural and semi-urban districts, easing migration pressures. Secondly, MSMEs play an innovative role in inclusive regional development. Since they can operate with smaller capital thresholds and commonly with locale-specific inputs, MSMEs are feasible in backward or less-industrialized areas. This diminishes geographic inequality, disperses industry activity from metro clusters, and provides more balanced growth across the nation (Rathore & Mathur, 2019). The SIDBI report (2025) also highlights how MSMEs, through value chain integration with regional value chains, reinforce locale-specific supply-demand networks and upgrade community infrastructure

Third, MSMEs are significant contributors to GDP, industrial manufacturing, and exports. The sector has been consistently contributing about a third of India's Gross Domestic Product as estimated in recent government and industrial research (SIDBI, 2025). In manufacturing, MSMEs are typical ancillary units servicing major organizations with vital intermediate goods, inputs, and services (Siddiqui, 2015). In export marketing, MSMEs account for more than 45% of India's value of total export with a significant presence in international business (Uma, 2018). Fourth, MSMEs are increasingly embracing technologies, resilience, and sustainable behavior. Recent studies emphasize that MSMEs with digital adoption, management of risks, and sustainable manufacturing are more resilient during shocks such as COVID-19 (Sahoo & Kumar, 2025). This adaptability and digital shift make them more competitive while also enabling long-term targets such as achieving sustainable development. Verma (2019) argues that MSMEs facilitate UN SDGs achievement such as decent work and economic growth (Goal 8), industry innovation (Goal 9), and reduction of inequality (Goal 10).

Finally, MSMEs extend social and financial inclusion by offering entrepreneurial opportunities to women, SC/ST communities, and other marginalized groups—thereby democratizing economic participation. Policy frameworks like Stand-Up India, Pradhan Mantri Mudra Yojana, and special credit schemes make it easier for historically underrepresented groups to enter business. To sum up, MSMEs are not just complementary to large industries; they are foundational to India's goals of equitable growth, regional upliftment, export competitiveness, and sustainable development. As per Table 2, a growth of 12.88 per cent is observed in the GVA of MSME over the period. After comparing all India GDP and the contribution of MSME in India's GDP, it is found that during the last five financial years, starting from 2014-15 to

2018-19; the contribution of MSME in India's GDP has been around 30 per cent that is a very significant value. Table 2 highlights the growth rate of the MSME sector in India before COVID-19. With the help of GVA and growth percentage from the table, it can be witnessed here that MSME was experiencing a growth rate with minor fluctuations in their market share.

Table 2

Share of Gross Value Added (GVA) of MSME in all India GDP (Figures in Rs. Crores adjusted for FISIM at current prices)

Year	Total MSME GVA	Growth (%)	Total GVA	Share of MSME in GVA (%)	All India GDP	Share of MSME in All India GDP (in %)
2014-15	3658196	-	11504279	31.80	12467959	29.34
2015-16	4059660	10.97	12574499	32.28	13771874	29.48
2016-17	4502129	10.90	13965200	32.24	15391669	29.25
2017-18	5086493	12.98	15513122	32.79	17098304	29.75
2018-19	5741765	12.88	17139962	33.50	18971237	30.27

Source: Central Statistics Office (CSO), Ministry of Statistics and Programme Implementation

2.1 Estimated number of MSMEs in country

MSMEs in India play a critical role in decreasing regional imbalances and ensuring a more fair distribution of national income and wealth by providing substantial job opportunities at a lower capital cost than large businesses and industrialization of rural and backward areas (Dahiya, 2015). Table-3 reports the estimated number of enterprises (in lakh) concerning manufacturing, electricity, trade and other different services. It is found that the number of manufacturing enterprises in rural areas is more than in urban areas (Refer to table-4). Similar is the case with the electricity category. But trade and other service-related enterprises are found more in urban areas than rural areas.

Table 3 Estimated Number of MSMEs (Activity Wise)

Activity Category	Estimated Number of Enterprises (in lakh)			Share (%)
	Rural	Urban	Total	
Manufacturing	114.14	82.50	196.65	31
Electricity	0.03	0.01	0.03	0
Trade	108.71	121.64	230.35	36
Other Services	102.00	104.85	206.85	33
All	324.88	309.00	633.88	100

Table 4 Distribution of Enterprises in Rural and Urban areas (Numbers in lakh)

Sector	Micro	Small	Medium	Total	Share (%)
Rural	324.09	0.78	0.01	324.88	51
Urban	306.43	2.53	0.04	309.00	49

All	630.52	3.31	0.05	633.88	100
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Further to add unlike other industries, proportion of male vs female in both urban and rural area is very disproportionate here with a ratio of 8:2 approximately.

Table 5 Percentage Distribution of Enterprises in rural and urban areas (Male/ Female ownership)

Sector	Male	Female	Total (%)
Rural	77.76	22.24	100
Urban	81.58	18.42	100
All	79.63	20.37	100

2.2 Ownership of Enterprises Social Category Wise

As per table-6, it is observed that MSMEs were owned by nearly 66.27 per cent of socially disadvantaged groups. OBCs held the majority of it (49.72 per cent). SC and ST business owners were underrepresented in the MSME sector, with 12.45 per cent and 4.10 per cent, respectively. In rural areas, socially disadvantaged groups hold about 73.67 per cent of MSMEs, with the OBCs accounting for 51.59 per cent. In urban regions, about 58.68 per cent belonged to socially disadvantaged groups, with 47.80 per cent belonging to the OBC category.

Table6 Percentage Distribution of enterprises by social group of owners in rural and urban Areas

Sector	SC	ST	OBC	Others	Not Known	All
Rural	15.37	6.70	51.59	25.62	0.72	100.00
Urban	9.45	1.43	47.80	40.46	0.86	100.00
All	12.45	4.10	49.72	32.95	0.79	100.00

As per table-7, the micro sector had 66.42 per cent of enterprises owned by socially backward groups, whereas small and medium sectors had 36.80 per cent and 24.94 per cent of enterprises owned by socially backward groups, respectively, according to an analysis of enterprises owned by socially backward groups in each of the three segments of the MSME sector.

Table 7 Percentage Distribution of Enterprises Social Category Wise

Sector	SC	ST	OBC	Others	Not Known	All
Micro	12.48	4.11	49.83	32.79	0.79	100
Small	5.50	1.65	29.64	62.82	0.39	100
Medium	0.00	1.09	23.85	70.80	4.27	100
All	12.45	4.10	49.72	32.95	0.79	100

2.3 Employment

According to Table 8 and as per the 73rd round of the National Sample Survey (NSS) conducted in 2015-16, the MSME sector created 11.10 crore jobs in rural and urban areas across the country (360.41 lakh in

manufacturing, 0.07 lakh in non-captive electricity generation and transmission, 387.18 lakh in trade, and 362.82 lakh in other services).

Table 8 Estimated Employment in the MSME Sector (Activity Wise)

Broad Category	Activity	Employment (in lakh)			Share (%)
		Rural	Urban	Total	
Manufacturing		186.56	173.86	360.41	32
Electricity		0.06	0.02	0.07	0
Trade		160.64	226.54	387.18	35
Other Services		150.53	211.69	362.22	33
All		497.78	612.10	1109.89	100

2.4 State-wise Distribution of estimated MSMEs

Table 9 State-wise Distribution of enterprises

S. No.	State/UT	Estimate Number of MSMEs	
		Number (in lakh)	Share (in %)
1	Uttar Pradesh	89.99	14
2	West Bengal	88.67	14
3	Tamil Nadu	49.48	8
4	Maharashtra	47.78	8
5	Karnataka	38.34	6
6	Bihar	34.46	5
7	Andhra Pradesh	33.87	5
8	Gujarat	33.16	5
9	Rajasthan	26.87	4
10	Madhya Pradesh	26.74	4
	Total of above ten States	469.36	74
	Other State/UTs	164.52	26
	All	633.88	100

Source: NSS 73rd round, 2015-16

Even though the world was facing pandemic and so was India it was witnessed that registrations of MSME in manufacturing and service sector were risen.

Table 10 Share of Udayam Registrations-Manufacturing and Services (as on 31st December 2020)

Sector	Total Number	Percentage (Total)
Manufacturing	537677	38%
Service	865058	62%

2.5 The concept of variable identification for examination of company's performance

Company performance can be measured in two forms, via internal measures and external measures. For external measure, EPS (Earning per share) is still considered as a benchmark. Graham et al. (2004) overviewed 400 financial experts in the USA and revealed that EPS is the most significant performance

measure reported. Other researchers like Chen et al. (2004); Ohlson and Juettner-Nauroth (2005) and Taboga (2011) also confirmed the importance of EPS in advance valuation procedure. Adkins et al. (2010) stated that EPS conveniently sums up the profit created for investors and provides the picture presenting the performance of the company.

3. Hypotheses:

H_{O1}: There is no impact of lockdown on the revenue of MSME sector in India.

H_{A1}: There is an impact of lockdown on the revenue of MSME sector in India.

H_{O2}: There is no impact of lockdown on the growth of MSME sector in India.

H_{A2}: There is an impact of lockdown on the growth of MSME sector in India.

4. Research Methodology

4.1 Study Period

Since the study is based on assessing the impact of nationwide lockdown on the MSMEs in India, on comparing MSMEs performance during pre and after Covid-19, the study has considered two year time period. The first year is starting from 1st April 2014 to 31st March 2020, and the second is 1st April 2020 to 31st March 2024.

4.2 Data Analysis

The data for the study has been gathered from various central websites along with prowess IQ. In order to achieve the objective, it was essential to analyse the effect of various variables on the profit of MSMEs and their earnings per share. As profit is the central reflector of revenue earned by the company and EPS highlights the company's growth in the market. The positive relation between these variables and PBIT, EPS is proving that these variables are statistically fit for measuring the impact of lockdown on this sector.

Regression Equation-1

$PBIT = \beta_0 + \beta_1(Sales) + \beta_2(Total\ Capital) + \beta_3(COGS) + \beta_4(indirect\ taxes) + \epsilon$

The table-11 analysis shows that PBIT is significantly affected by the proportion of sales, total capital, Cost of goods sold (COGS) and indirect taxes. As the p-value for these variables is less than 0.05, R square and adjusted R square proved them more substantial with a 99% rate. Durbin- Watson stat here reported value at 2.03, which is also noteworthy for the equation signifying negative autocorrelation. Also, the coefficient value of variables further proved them essential for the analysis of the objective.

Table11
Regression Output for Equation-1

Variable	Coefficient	Prob.	t-Statistic
C	33.92081	0.0002	3.776621
Sales	0.457484	0.0004	2.14519
Total Capital	0.021996	0.0337	1.19599
COGS	1.015375	0.0000	56.65844
Indirect Taxes	0.707693	0.0000	16.63311
R-squared	0.993935	Mean dependent var	880.7678
Adjusted R-squared	0.993805	S.D. dependent var	936.0265

S.E. of regression	73.67551	Akaike info criterion	11.46479
Sum squared resid	754503.3	Schwarz criterion	11.54767
Log likelihood	-815.7326	Hannan Quinn criter.	11.49847
F-statistic	7593.731	Durbin Watson stat	2.037268
Prob(F-statistic)	0.0000		

Regression Equation-2

$$\text{EPS} = \text{Coefficient(PBIT)} + \text{Coefficient(Sales)} + \text{Coefficient(Raw Material)} + \text{Coefficient(Indirect Taxes)} + \text{Coefficient(Direct Taxes)} + \text{Coefficient(Total Capital)} + \text{Coefficient(Non-Current Liabilities)} + \text{Constant}$$

The above equation represents the relationship between earning per share and variables like PBIT, sales, raw material, indirect taxes, direct taxes, total capital and non-current liabilities. From the results of table, no 12, coefficient values of sales, indirect taxes, total capital and liabilities are reflecting a negative relationship with EPS. However, P- values further stated that indirect tax is not statically significant. Only positive relation with EPS was found with PBIT, with a p-value of 0.00, which is significant. R- square and adjusted R-square are near to 86 and 82%, respectively, proving the crucial association between these variables with a significant p-value. The value of Durbin Watson is 2.03, signifying negative autocorrelation between the variables.

Table12
Regression Output for Equation-2

Variable	Coefficient	Prob.	t-Statistic
C	4.097171	0	4.536114
PBIT	0.06685	0	4.306561
Sales	-0.002106	0.0034	-1.692419
Raw Material	0.000332	0.0444	0.261194
Indirect Taxes	-0.000371	0.0877	-0.065702
Taxes Paid	-0.030426	0.0128	-0.62573
Total Capital	-0.018792	0.0383	-2.096376
Non-Current Liabilities	-0.006957	0.0385	-2.096616
R-squared	0.867989	Mean dependent var	5.101515
Adjusted R-squared	0.828133	S.D. dependent var	5.740242
S.E. of regression	4.705133	Akaike info criterion	6.000046
Sum squared resid	2457.349	Schwarz criterion	6.186878
Log likelihood	-349.0027	Hannan-Quinn criter.	6.075912
F-statistic	9.232846	Durbin-Watson stat	2.060223
Prob(F-statistic)	0.00000		

Table13
Output of T-test: Paired Two sample Means for Pre and Post Covid-19 Period

T-Test: Paired Two Sample for Means	Sales (Pre)	Sales (Post)	Indirec t Taxes (Pre)	Indirect Taxes (Post)	Raw Material (Pre)	Raw Material (Post)	COGS (Pre)	COGS (Post)
Mean	794.2	947.07297 3	123.57	111.92	525.17	777.2959 5	645.719 5	801.5284
Variance	651911 .5	1048136.7 5	31536. 8	12350.3 9	412172.5 7	947281.4 7	551656. 2	931632.9
Pearson Correlati on	-0.199		-0.1134		-0.0898		-0.20826	
t Stat	-0.9231		0.4558		-1.7877		-1.004	
P(T<=t) one-tail	0.0594		0.3249		0.0389		0.0159	
t Critical one-tail	1.665		1.6659		1.6659		1.665	
P(T<=t) two-tail	0.1		0.6498		0.0779		0.0318	
t Critical two-tail	1.992		1.9929		1.9929		1.9929	

Table-13 reports the t-test result of the variable sales, indirect sales, raw material and COGS. From the table, the mean value of sales, raw material and COGS during the post-covid period is found more than the mean value of the pre-period. However, for indirect taxes, a small decrease is seen through mean values. The t-stat value is -0.9231, one-tail t-critical value is 1.665 with p-value 0.0594. Further two-tail t-critical value is 1.999 with a p-value of 0.189. It is observed from these results that the sale of MSMEs during the post-covid period is found to be more than the pre-covid period. These indicators were similar for raw material and COGS. The results indicate that during the post-covid period, the MSMEs have put in more effort to boost the sales even in the pandemic period.

Table14
Output of T-test: Paired Two sample Means for Pre and Post Covid-19 Period

T-Test: Paired Two Sample for Means	EPS (Pre)	EPS (Post)	PBIT (Pre)	PBIT (Post)	Total Capital (Pre)	Total Capital (Post)	Non- Current Liabilitie s (Pre)	Non- Current Liabilitie s (Post)
Mean	4.8483	5.0899	54.6189	68.04	89.6121	82.94	90.979	92.1108

Variance	36.999	17.706 3	5707.251 9	3208.4 9	3150.86	2249.6 8	22527.23 2	31684.11
Pearson Correlation	-0.0595		-0.1752		-0.1002		-0.077	
t Stat	0.3926		-1.1317		0.7443		-0.0402	
P(T<=t) one-tail	0.0565		0.013		0.0229		0.0483	
t Critical one-tail	0.7853		1.6659		1.6659		1.665	
P(T<=t) two-tail	1.9929		0.0261		0.0459		0.0967	
t Critical two-tail	0.1139		1.9929		1.9929		1.9929	

Table-14 reports the t-test result of the variable EPS, PBIT, capital and current liabilities. From the table, the mean value of all the variables during the post-covid period is found more than the mean value of the pre-period, indicating a significant increase in the profits, earnings and liabilities. However, for the capital required, the mean value reduced during the post-covid period. The t-Stat value and one-tail t-critical value with p-value is significant as it is less than or equal to 0.05 for all the variables in the table. Further two-tail t-critical value with p-value is observed significant for only PBIT and capital. It is observed from these results that the performance of MSMEs during the post-covid period is found to be better with reduced capital requirement when compared to the pre-covid period. Based on the results, H01 and H02 are rejected, and alternate hypothesis is accepted, stating that: there is a positive impact on the revenue and growth of the MSME sector in India post lockdown.

5. Conclusion

The Micro, Small, and Medium Enterprise (MSME) sector has proved, yet again, to be the linchpin of the Indian economy with an enviable resilience across unprecedented challenges posed due to the COVID-19 pandemic. While there were high hopes in the initial days that MSMEs would mirror the deep decline seen across larger businesses, the empirical evidence compiled in the present study negates such perceptions entirely. Instead of succumbing, MSMEs demonstrated flexibility and innovation, benefiting from their relatively lean structures and low fixed expenses in order to continue operation during the lockdown era. This ability to evolve—either through digital adoption, lower capital requirements, or locational supply chain leveraging—has enabled the sector to quickly rebound and even register revenue and earnings per share growth (Chen et al., 2023).

The lockdown precipitated an environment in which big businesses, weighed with greater operational expenses and inflexible structures, found it challenging to adapt. Conversely, MSMEs took full advantage of their built-in flexibility, opting for more effective modes of production and digital platforms of trade, payment, and customer interface. This adaptability highlights the strategic value of MSMEs, both as jobs generators and as flexible players in innovative and inclusive growth (Agarwal, 2023). Beyond that, the government's appreciation of the sector's potential has also been manifested through policy actions and budgetary allocations. Measures like revised classification, schemes of liquidity infusions, and selective

financial assistance have given the sector the institutional support so badly needed (Agarwal, 2024). But to maintain this rhythm, persistent policy support, particularly in the spheres of ease of credit, digital infrastructure, skill formation, and value chain integration, is necessary (Sharma & Rai, 2022). This research emphasizes MSMEs should be judged not just beneficiaries during relief packages in emergencies but also engines of long-term economic stability. The sector's ability to survive and thrive in suboptimal circumstances has great potential to help meet the vision of transforming India into a \$5 trillion economy. Development of MSMEs, hence, is more than an economic imperative but also a strategic move towards achieving a resilient and inclusive economy in the post-COVID world (Gupta, 2023; Pradhan, 2023).

6. Implications of study

This findings of the study have significant implications for policymakers, practitioners, and scholars. Initially, the fact the MSMEs showed their resilience during the pandemic challenges the conventional argument that smaller enterprises are more vulnerable to crisis. Rather, it spotlights their adaptability capacity and potential to spearhead economic rebound. Policymakers should take notice of such strength and ensure support measures go beyond short-term relief to capacity development in the long term, with special reference to technology diffusion, ease of credit, and value chain integration in domestic and international value chains. Second, the study highlights the value of digitalization and cost-effectiveness strategies in helping MSMEs weather external shocks. Practically, it offers a guide to investing more in digital platforms, internet marketplaces, and supply chain adaptability so business can continue amidst systemic disruptions. Further, considering the sector's massive contribution to employment and inclusive growth, the results also highlight the need for targeted programs that support the inclusion of women entrepreneurs, marginalized groups, and rural businesses to achieve the country's inclusive development agenda. Third, the results also indicate that government programs, as well-intentioned as they are, ought to be closely monitored to ensure effective implementation. Bridging gaps between policy design and implementation is critical to strengthening MSMEs in application. Finally, to the research community, the study provides empirical evidence challenging prior assumptions about MSME vulnerability and opens the way forward to developing theory on bouncing back, flexibility, and sustainability in business ecosystems with small firms.

7. Limitations and Future Scope

This paper has limitations in addition to the noteworthy statistical findings. The first is the brief analysis period, considering that the COVID-19 epidemic and the lockdowns that followed didn't start until March 2020. Therefore, rather than capturing long-term structural changes, the study was only able to catch short-term, acute effects. Furthermore, the study only included a small number of financial metrics, including sales, PBIT, and EPS, which are significant but might not accurately represent the more comprehensive aspects of MSME performance, such as innovation, worker satisfaction, or market diversity. Another limitation pertains to the heterogeneity of the MSME sector itself. MSMEs is spread across industries, geographic regions, and ownership patterns. This makes it difficult to generalize the findings across different sectors. This heterogeneity suggests the need for future research to adopt a more disaggregated approach, examining industry-specific or region-specific resilience strategies.

Going forward, future studies could expand the scope by incorporating longitudinal data to analyze medium- and long-term impacts of the pandemic. Comparative analyses across countries or between formal and informal MSMEs could also provide richer insights into how contextual factors shape

resilience. Moreover, future research could integrate non-financial indicators such as environmental practices, innovation capacity, and employee welfare into the framework of MSME performance. Such multidimensional analyses would not only provide a comprehensive understanding of MSME resilience but also inform policy interventions that are more nuanced and effective.

References

1. Adkins, Matchet, & Toy. (2010). EPS – the holy grail or red herring of M&A analysis. Technical update, February.
2. Agarwal, A. (2024). Analysing the impact of relief measures on MSMEs' resilience. *Global Business and Economics Review*, 26(1), 34–52. <https://doi.org/10.1504/GBER.2024.140232>
3. Agarwal, V. (2023). Building resilience for sustainability of MSMEs post COVID-19: An MSME perspective. *Social Enterprise Journal*, 18(2), 209–235. <https://doi.org/10.1108/SEJ-09-2021-0074>
4. Alaguraja, M., & Nedumaran, D. G. (2020). Performance of Khadi and Village Industries Commission through Micro, Small, & Medium Enterprise. *Aegaeum Journal*, 8(3), 1253–1262.
5. Chen, F., Jorgensen, N. & Yoo, Y. K. (2004), Implied cost of equity capital in earnings-based valuation: international evidence. *Accounting and Business Research*, Vol. 34 No. 4, pp. 323-344.
6. Chen, Y., Das, S., & Patnaik, I. (2023). The impact of COVID-19 containment lockdowns on MSMEs in India and resilience of exporting firms. *Journal of Economic Behavior & Organization*, 210, 320–341. <https://doi.org/10.1016/j.jebo.2023.04.001>
7. Dahiya, S. (2015). Growth & performance of MSMEs in India: Prospects and problem. *Journal of Rural and Industrial Development*, 3(1), 12.
8. ET Now. (2020, 26 February). India's GDP grew 0.4% in Q3 of FY21, returns to growth after two consecutive quarters of decline. *The Economic Times*. Retrieved from <https://economictimes.indiatimes.com/news/economy/indicators/indias-gdp-grew-0-4-in-q3-of-fy21-returns-to-growth-after-two-consecutive-quarters-of-decline/videoshow/81229713.cms?from=mdr>.
9. Gettleman, J, & Schultz, K. (2020, 24 March). Modi Orders 3-Week Total Lockdown for All 1.3 Billion Indians. *The New York Times*. Retrieved from <https://www.nytimes.com/2020/03/24/world/asia/india-coronavirus-lockdown.html>.
10. Graham, J.R., Campbell, R. H. & Rajgopal, S. (2004), The economic implications of corporate financial reporting. Working paper, 11 January.
11. Gupta, A. (2023). Managing resilience of micro, small and medium enterprises (MSMEs) during COVID-19: Analysis of barriers. *Benchmarking: An International Journal*, 30(6), 2062–2084. <https://doi.org/10.1108/BIJ-11-2021-0700>
12. Khidhir, A. (2020). Will COVID-19 reshape digital banking?. *Finextra.com*. Retrieved from www.finextra.com/blogposting/18766/will-covid-19-reshape-digital-banking.
13. Khurana, A.K. (2020, February 06). How MSMEs are being a catalyst for the Indian economy's growth. *Yourstory*. Retrieved from <https://yourstory.com/smbstory/msme-indian-economy-gdp-credit/amp>.
14. Mansur, R. (2020). How Mastercard is helping MSMEs push towards digital payments amidst COVID19. *SMBStory*. Retrieved from <https://yourstory.com/smbstory/mastercard-msmes-digitalpayments-india-covid-19>.
15. Mishra, M. N., Mohan, A., & Sarkar, A. (2021). Role of lean six sigma in the Indian MSMEs during COVID-19. *International Journal of Lean Six Sigma*.

16. Misra, U. (2020, May 07). Explained: Why are Medium, Small, Micro Enterprises worst hit by Covid-19 lockdown?. The Indian Express. Retrieved from <https://indianexpress.com/article/explained/coronavirus-india-lockdown-msme-sector-crisis-government-relief-package-6395731/>.
17. MSME. (2020). The Gazette of India. MSME. Retrieved from https://msme.gov.in/sites/default/files/MSME_gazette_of_india_0.pdf.
18. Ohlson, J. A. & Juettner-Nauroth, B. E. (2005), Expected EPS and EPS growth as determinants of value. *Review of Accounting Studies*, Vol. 10, pp. 349- 365.
19. Pradhan, R. K. (2023). Resilience of MSME sector in India and COVID-19. *South Asian Journal of Socio-Political Studies*, 24(2), 55–67. <https://doi.org/10.2139/ssrn.4786590>
20. Pradhan, S., Ghose, D., & Shabbiruddin. (2020). Present and future impact of COVID-19 in the renewable energy sector: A case study on India. *Energy Sources, Part A: Recovery, Utilization, and Environmental Effects*, 1-11.
21. Ray, M. (2020, August 31). India's economy contracts by 23.9%, worst in decades. *Hindustan Times*. Retrieved from <https://www.hindustantimes.com/india-news/india-s-gdp-growth-rises-falls-by-23-9-per-cent-in-april-june-quarter/story-Yj1GGTR7fuHAQ6QNL0jpBL.html>.
22. Sahoo, P., & Ashwani. (2020). COVID-19 and Indian economy: Impact on growth, manufacturing, trade and MSME sector. *Global Business Review*, 21(5), 1159-1183.
23. Sahoo, P., & Kumar, A. (2025). MSMEs in the post-pandemic world: Resilience, digitalization and sustainability. *Journal of Business Research*, 182, 113–128. <https://doi.org/10.1016/j.jbusres.2025.113128>
24. Sharma, A. K., & Rai, S. K. (2022). Understanding the impact of COVID-19 on MSMEs in India: Lessons for resilient and sustained growth of small firms. *Institute for Studies in Industrial Development Working Paper Series*, 243, 1–32.
25. Sheth, H. (2020, March 25). India's 21-day lockdown: A complete list of what remains open and closed. *Business Line*. Retrieved from <https://www.thehindubusinessline.com/news/indias-21-day-lockdown-a-complete-list-of-what-remains-open-and-closed/article31159969.ece>.
26. SIDBI. (2025). Understanding Indian MSME sector: Progress and challenges. *Small Industries Development Bank of India*.
27. Srivastava, D. (2020). Role of MSME Sector in Indian Economy: A Study with special reference to Gujarat. *Pacific Business Review International*, 13(3).
28. Taboga, M. (2011), Under- and over-valuation of the stock market and cyclically adjusted earnings. *International Finance*, Vol. 14, No. 1, pp. 135-164.
29. Tafti, Z. Jariwala, D. Jain, A. & Gupta, S. (2020). Impact of the COVID-19 outbreak on digital payments. PWC India. Retrieved from www.pwc.in/consulting/financial-services/fintech/dp/impact-of-the-covid-19-outbreak-on-digital-payments.html
30. Tripathi, A. (2020, September 23). Covid-19 affect on Micro, Small and Medium Enterprises (MSMEs). The Times of India. Retrieved from <https://timesofindia.indiatimes.com/blogs/ageya/covid-19-affect-on-micro-small-and-medium-enterprises-msmes/>.
31. Uma, T. G. (2018). Role of MSMEs in Indian economy: A study with special reference to employment generation. *International Research Journal of Economics and Management Studies*, 7(1), 72–80.

32. Uma, T. G., & Anbuselvi, R. (2023). Role of Micro, Small and Medium Enterprises (MSMEs) in employment generation in India. *Journal of Business and Economic Development*, 8(2), 65–72.
33. Verma, R. (2019). Sustainable development and MSMEs: An Indian perspective. *International Research Journal of Economics and Management Studies*, 4(5), 105–113.