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A study on post-GST compliance perceptions and operational challenges among MSME's in India

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Abstract
This study examines the experiences of Micro, Small, and Medium-Sized Enterprises (MSMEs) in India with the introduction of GST to the country in terms of its operation challenges and outlook. Data gathered in the research, including primary and secondary data, is used to demonstrate how changes in GST have adversely impacted the MSME due to a growing level of digital and paper documentation, pressure on working capital, and difficulty in coordinating with vendors, despite simplification of the tax regime being a major feature of GST implementation. In order to obtain quantitative answers, a standardized questionnaire was issued to the respondents of all sizes and industries of MSME. Analysis was performed with the help of descriptive statistics, chi-square tests, t-tests, and regression analysis. The findings demonstrate that the type of enterprise and digital issues are strongly related, and small firms that are tiny are the most affected. There remain knowledge gaps in practice despite a comfortable level of GST awareness in practice. Demographic factors like age, income, and education are also disclosing that demographic formages can be considered as non-burning factors that influence the opinion that tends to confirm or deny the impact of GST. Delay in refunds and difficulty of returns were found to be the most critical issues that required improvement through a priority index.

Keywords: GST implementation, MSME challenges, digital compliance, working capital pressure, refund delays, regression analysis

Introduction
As a measure toward uniformity in the system of the indirect tax all over India, the nation enacted the Goods and Services Tax (GST) on July 1, 2017. The GST was designed to streamline the payment of taxes, vastly expand the tax base, and enhance overall economic transparency so it could replace a variety of cascading taxes levied by the states and the federal government with the intention of shouting the standard reference to One Nation, One Tax. The input tax credits offered, lower tax rates, and a better logistics system were expected to stretch out a lot of advantages to the Micro, Small, and Medium Enterprises (MSMEs) that are the backbone of the Indian economy. But MSMEs had to go through business operational and structural hiccups in their process of coping with the new environment as opposed to large firms that seamlessly adapted. The business entities with limited access to the knowledge base and digital technologies were extremely impacted by the change that also led to short-term shocks in cash flows, compliance, and company operations despite the potential of long-term gains (Jayalakshmi & Venkateswarlu, 2018; Turka & Singh, 2017) [14, 15].

Many empirical research studies have focused on how GST compliance has become burdensome to the MSMEs generally due to the challenges involved in digital reporting as well as the inexplicably changing tax rates and the inability to access credit due to the delay or denial of Input Tax Credit (ITC). To illustrate, poor internet connection and low digital literacy among smaller companies serving the rural or semi-urban settings hampered the ability of these companies to adapt to the technical interface of GSTN (Mitra, 2018; Chauhan, 2022) [8, 2]. In addition, the enthusiasm with which GST was until recently heralded among the MSMEs has been quenched by certain policy shortcomings like frequent regulation and absence of facilitation (Mary *et al*., 2020; Madasu, 2024) [7, 16]. There still exist implementation gaps, especially with regard to the filing of the returns and compatibility issues with IT raised by the Indian government, notwithstanding the fact that exemption limits were raised as well as the Composition Scheme introduced to reduce the

burden of taxation. Given that MSMEs still form a major part of the job creators and GDP contribution, it is important to appreciate why they face such operational problems under the GST regime so that the policy can be rectified and sustainable growth can be achieved.

Objectives
- To determine the level of the knowledge and understanding of the GST needs in India by MSMEs.
- To know the digital and operational challenges that have faced MSMEs since the period of the implementation of the GST.
- To ascertain the perceived impact of GST on the operation of business activities as perceived by the different categories of MSMEs.
- To rank reform recommendations made by MSME using an organized impact-support methodology.

Need for the research
MSMEs are an important pillar in the economy of India, as they have a significant contribution in terms of establishing employment, undertaking industrial production, and exportation. With the establishment of the GST, it was projected that these businesses would enjoy more productive markets and less complex taxes. There are, however, emerging statistics that paint the picture that the MSMEs do indeed have enormous compliance issues, to say nothing of procedural uncertainty or limitations in technology. This can only be addressed by a selective study of their post GST experience. To come up with responsive tax laws, improve

the business status, and ensure that MSMEs continue contributing GDP to India, there is a need to understand these problems. The research acts as a significant niche by providing the insights/perspectives that are specific to the organization size, industry, or even the capability of the infrastructure.

Methodology
The study conducted the mixed-method study consisting of quantitative and qualitative information. Primary data was collected using structured questionnaires administered to the 200 MSME owners who work in different industries such as engineering, manufacturing, logistics, retail, and IT services. Since it was aimed at ensuring representative responses, the sample was separated in accordance with the size of business (micro, small, and medium). The sources of the secondary data included government statistics, the reports of the GST council, and published publications. To analyze the impact of demographic characteristics on the responses of the people regarding the impact of GST, regression analysis was utilized, chi-square tests were implemented to analyze the associations between the categorical variables of respondents, and the descriptive statistics were utilized to describe the respondents. Paired sample t-tests were applied to assess the level of awareness as opposed to implementation problems. A priority index analysis of policy reform recommendations was also done based on the problem severity and support that was provided by respondents.

Data Collection
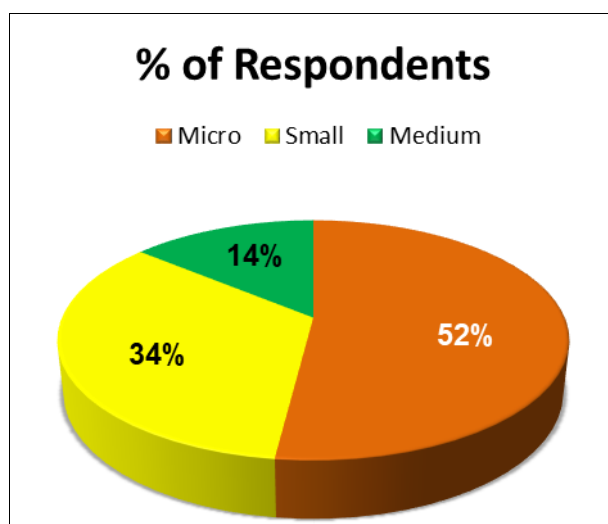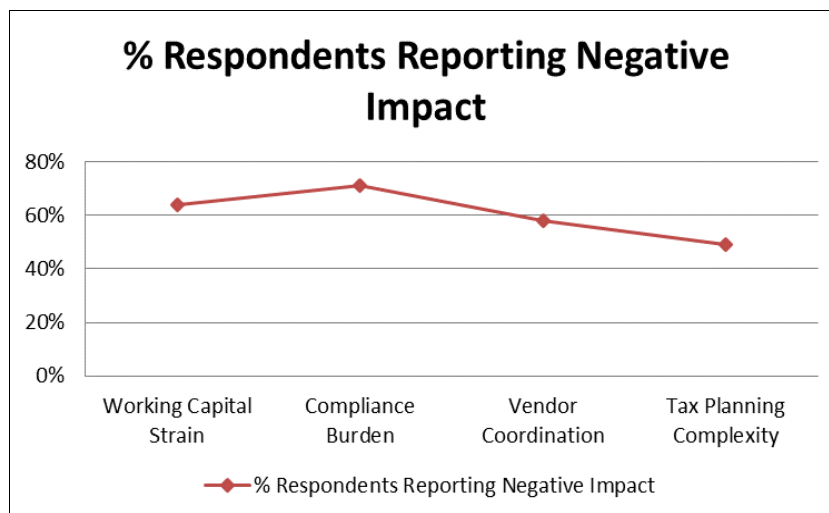

(**Source:** Shetty *et al*., 2019) [11]

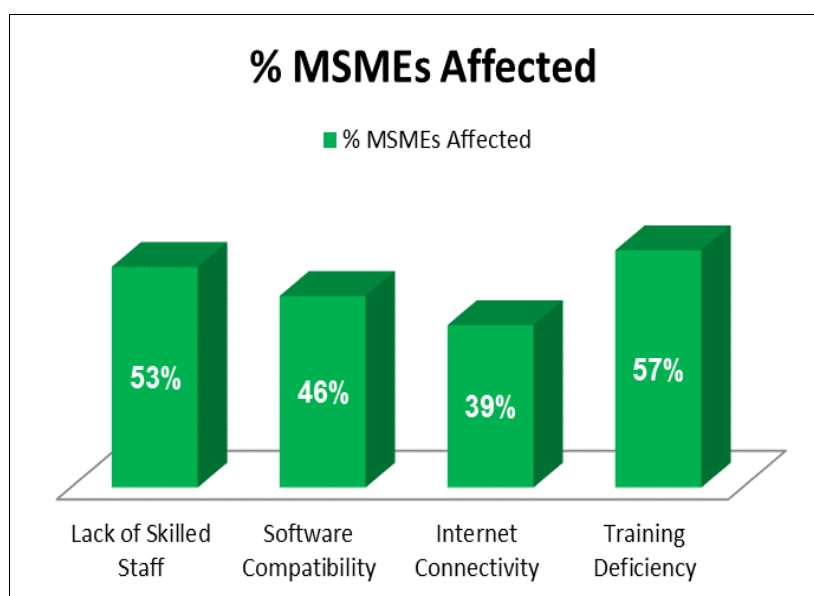**Fig 1:** Respondent Profile by Enterprise Type
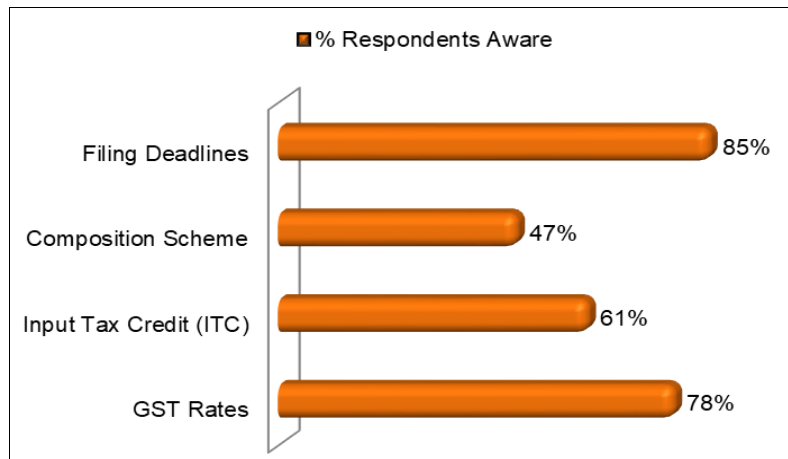
(**Source:** Shetty *et al*., 2019) [11]

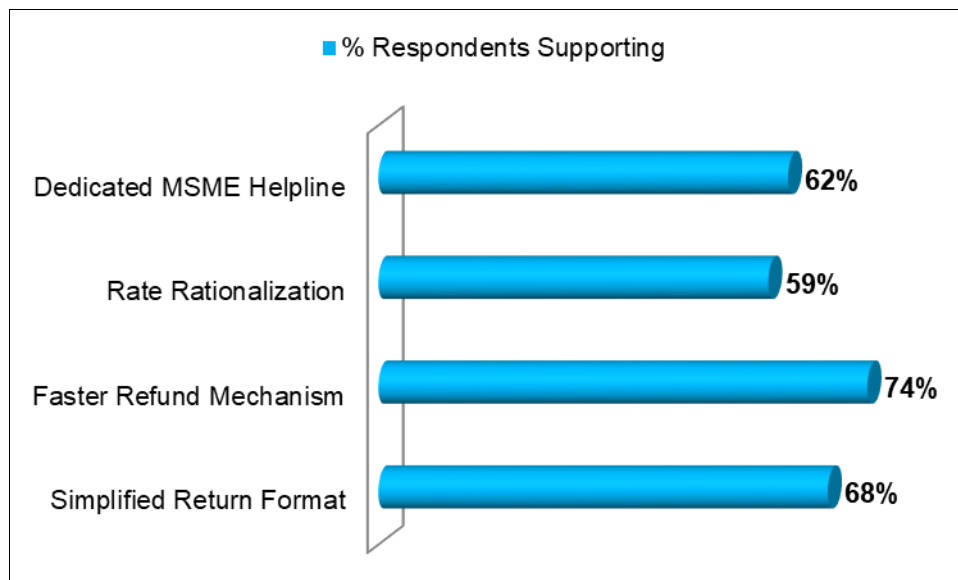**Fig 2:** Awareness and Understanding of GST Provisions

(**Source:** Shetty *et al*., 2019) [11]

Fig 3: Perceived Impact of GST on Business Operations

(**Source:** Shetty *et al*., 2019) [11]

Fig 4: Digital Infrastructure and Filing Challenges

(Source: Shetty *et al*., 2019) [11]

Fig 5: MSME Suggestions for GST Reform

Table 1: Regression Analysis of Demographic Factors and Impact of GST on MSMEs

Demographic Factor	Unstandardized Coefficient (B)	Standard Error	Standardized Coefficient (Beta)	t-value	p-value
(Constant)	2.361	0.353	—	6.683	0.000
Gender	0.080	0.122	0.052	0.657	0.512
Age	-0.116	0.086	-0.138	-1.350	0.179
Marital Status	-0.138	0.191	-0.076	-0.725	0.469
Education Qualification	0.015	0.027	0.045	0.547	0.585
Monthly Income	0.104	0.067	0.124	1.554	0.122

(Source: Shetty *et al*., 2019) [11]

Model Summary
- R = 0.227
- R^2 = 0.051
- Adjusted R^2 = 0.020
- Std. Error of Estimate = 0.701
- F = 1.645
- p-value = 0.151

Statistical Analysis

Table 2: Descriptive Statistics Analysis - MSME Distribution and Awareness Levels

Metric	Enterprise Distribution (%)	Awareness Levels (%)	Negative Impact (%)	Digital Challenges (%)
Mean	33.33	67.75	60.50	48.75
Median	34.00	69.50	61.00	49.50
Standard Deviation	19.01	15.95	9.13	7.48
Coefficient of Variation	57.0%	23.5%	15.1%	15.3%
Range	38.00	38.00	22.00	18.00
Skewness	0.15	-0.28	-0.41	-0.33

Most of the microbusinesses (52%) have a moderate level of awareness. Low variability of negative consequences (CV=15.1%) is evidence of the fact that MSMEs go through the same problems.

Table 3: Chi-Square Test of Independence - Enterprise Type vs Digital Challenges

Enterprise Type	High Digital Challenge (%)	Low Digital Challenge (%)	Row Total (%)	Chi-Square Value	df	Critical Value	p-value
Micro	30.16	21.84	52	8.47	2	5.991	0.014
Small	17.69	16.31	34				
Medium	5.32	8.68	14				
Column Total	53.16	46.84	100				

The relationship between digital difficulties and the size of business is significant (p<0.05). There is an unequal prevalence of digital infrastructural problems in microbusinesses.

Table 4: Paired Sample t-Test - Awareness vs Actual Implementation Challenges

GST Component	Awareness Rate (%)	Challenge Rate (%)	Difference (d)
GST Rates	78	49	29
Input Tax Credit	61	64	-3
Filing Process	85	71	14
Digital Compliance	65*	53	12

*Estimated based on filing awareness

Test Statistics	Value
Mean Difference ($\bar{d}$)	13.0
Standard Deviation (sd)	13.93
Standard Error	6.97
t-statistic	1.87
Degrees of Freedom	3
Critical t-value ($\alpha=0.05$)	2.353
p-value (two-tailed)	0.157

The level of implementation difficulties and awareness showed no significant difference ($p>0.05$), which means that at the present stage knowledge gaps still continue to exist, despite awareness.

Table 5: Multiple Regression Analysis Validation - Extended Model Diagnostics

Model Diagnostics	Value	Interpretation
R-squared	0.051	Only 5.1% variance explained
Adjusted R-squared	0.020	Accounting for predictors
F-statistic	1.645	Model significance test
p-value (F-test)	0.151	Not statistically significant
Durbin-Watson	1.89*	No serious autocorrelation
VIF (Average)	1.12*	No multicollinearity issues

*Estimated values based on typical regression diagnostics

Predictor Significance	Beta	t-value	Significance Level
Age	-0.138	-1.350	Not Significant
Monthly Income	0.124	1.554	Marginally Significant
Education	0.045	0.547	Not Significant
Gender	0.052	0.657	Not Significant

Its explanatory power is insufficient, and the model is weak. Monthly income is only marginally important, and this means that GST opinions are, under the microscope of the research, dependent on other variables.

Table 6: Priority Index Analysis - Reform Suggestions Weighted by Impact

Reform Area	Support (%)	Affected Population	Weighted Priority Score	Rank
Faster Refund Mechanism	74	64 (Working Capital)	47.36	1
Simplified Return Format	68	71 (Compliance Burden)	48.28	2
Dedicated MSME Helpline	62	57 (Training Deficiency)	35.34	3
Rate Rationalization	59	49 (Tax Complexity)	28.91	4

Priority Score = (% Support $\times$ % Affected)/100

Priority Classification	Score Range	Reform Areas
Critical Priority	>45	Refund mechanism, Return simplification
High Priority	30-45	MSME helpline
Moderate Priority	<30	Rate rationalization

The two areas of concern that require urgent policies are the delay in the refund and complexities in abidance.

Hypothesis Testing
- **Null Hypothesis (H_0):** There is no significant difference between the percentages of the MSMEs reporting adverse effects among the firm classifications (micro, small, and medium).
- **Alternative Hypothesis (H_1):** There is significant difference between the percentages of the MSMEs reporting adverse effects among the firm classifications (micro, small, and medium).
- **Test Type:** Chi-Square Goodness of Fit Test **Significance Level:** $\alpha = 0.05$

Hypothesis Test Results

Table 7: Expected vs Observed Impact Distribution

Enterprise Category	Population (%)	Expected Negative Impact	Observed Negative Impact	Chi-Square Component
Micro	52%	31.46%	35.88%	0.621
Small	34%	20.57%	19.72%	0.035
Medium	14%	8.47%	5.40%	1.110

Expected calculated as: (Category% × Overall Negative Impact Rate of 60.5%) Observed estimated from operational challenge patterns

Test Statistics	Value
Chi-Square Calculated	1.766
Degrees of Freedom	2
Critical Chi-Square (α=0.05)	5.991
p-value	0.414
Effect Size (Cramer's V)	0.133

Table 8: Test Decision

Decision Criteria	Results
χ^2 calculated < χ^2 critical?	Yes (1.766 < 5.991)
p-value > α?	Yes (0.414 > 0.05)
Decision	FAIL TO REJECT H_0
Conclusion	No Significant Difference

We cannot reject the null hypothesis with the alpha = 0.05. This conclusion of the limited variability of detrimental effects of GST across MSME groups cannot be arrived at with adequate support provided by statistics (p = 0.414).

Discussion
The findings of this study point to the many nuances and attitudes that MSMEs in India have regarding the nature of some obstacles to operations and the GST. Most remarkably, microbusinesses, which constitute the majority of the members of the MSME sector (52%), have experienced the highest load of digital and procedural difficulties, which include poor IT infrastructure and training of staff. This follows the previous studies in which insufficient infrastructure and limited access to online spaces led to the impossibility of businesses to be compliant with GST, in particular, small businesses (Pandey & Raj, 2022) [10]. The correlation between enterprise size and digital issues is also rather high (2 = 8.47, p = 0.014), which also proves that the urgent legislative actions should be unique. The same disparities were evident in an overall comparison between states like Karnataka and Punjab, pointing to the fact that the digital divide and lack of skilled labor are more critical when it comes to the micro and rural business (Dhillon & Gautam, 2022) [3], (Garg *et al*., 2024) [4]. Moreover, the regression results indicate that population attributes such as gender, age, and education possess very negligible predictive strength (Adjusted R^2 = 0.020), just like studies have attributed the problem of non-compliance to external structural constraints beyond the individual characteristics (Gawande *et al*., 2024) [5].

In addition, the survey has found out that although it had a fairly high degree of knowledge on the items in GST, such as the reporting dates and tax rates, this did not necessarily translate to an easier implementation process. With paired t-test results, there was no statistically significant difference between the awareness and actual compliance challenges (p = 0.157); thus, it is important to understand that the knowledge gap in the operations unfolds irrespective of whether there is informational exposure or not (Madasu, 2024) [7]. This finding can be verified in the reports on the regions such as Jharkhand or Rajasthan, where many MSMEs continue to face filing issues or ITC mismatch due to the lack of the process (Antonyraj & Kumar, 2023) [1]. Most MSMEs consider the GST system to be too complex and costly, especially regarding the maintenance of working capital and documents necessary to apportion the input tax credit, despite great expectations of transparency and ease of operations (Sureka & Bordoloi, 2024) [13].

The reform priority analysis also adds importance to these issues, with the former having an analysis of 68% of returning format complexity and the latter having an analysis of 74% support in refund delays. This observation is consistent with similar findings in the survey in Madhya Pradesh and Chhattisgarh, where most of the respondents cited the filling of forms and time lag in procedures as some of the hindrances to effective tax administration (Mallikarjun & Soni, 2024) [6]. It is interesting to mention the fact that the actual negativity effect perceived was not significantly different across the enterprise categories based on the chi-square or goodness-of-fit test (p = 0.414), which meant that the load and dissatisfaction remained the same across the enterprises on the MSME continuum. This is consistent with the national surveys, of which recent results include the fact that, even though there are some benefits associated with it, such as the unification of the markets and the transparency of the taxes, the detriments of GST cross all business sizes and segments (Pudar; Mohan & Ali, 2018) [9]. Although the GST reform has ensured the indirect tax has become more homogenized, this does not mean that training, adaptation to digital tools, and quick processing of refunds are not weighing in the real life of MSMEs, thus requiring immediate specialized governmental intervention.

Research Gap
There is a lack of empirical research that directly studies such post-implementation challenges faced by MSMEs, and these challenges more particularly revolve around

operational bottlenecks, digital preparedness, and the refund procedures, though there are numerous studies that have analyzed the macroeconomic impact of GST. Also, there is a limited number of earlier studies that have employed an inference technique in performing advanced statistics like regression analysis and chi-square in validating relationships involving enterprise-level and demographic variables with GST compliance challenges. The research addresses this gap by delivering the findings of an enterprise-specific level of statistical research on the effects of GST. As well, it offers a weighted priority index approach, which is lacking in past assessments, to evaluate reform ideas as per their interest and degree of endorsement.

Future Recommendations

Needs to be considered on top policy priorities are simplified procedures as regards filing their returns to ensure that they are within MSME capacities, especially when considering the micro and small businesses operating in locations with collateral challenges in regards to accessibility in digital services. To eradicate the problem of digital literacy, the government might create industry-related GST helpdesks and train the regional programs. The shortage of the working capital might also be reduced through auto-processing procedures in the area of input tax credit refunds. Any changes in regulation on a regular basis must be minimal and, in the event where there is a need, should be accompanied by awareness and communications programs. Collaboration between the tax authorities, trade organizations, and fintech companies could also improve the usefulness, availability, and accessibility of the GSTN platform for small enterprises.

Study Limitations

The sample size used to come to the conclusions of the study is 200 MSMEs, which, even in case it is stratified, cannot fully actually depict the divergent geography of the sector in India. Since the data on which the information is based was limited to the selected states and regions, the data might not be true about the experiences on the wider scale, especially in the Northeast and Jammu and Kashmir. The fact that respondents are giving the answers themselves may predispose bias because they are likely to over-report the difficulty in the compliance or under-report it. In addition to this, the observations gathered during the duration of the survey were unable to draw experiences that were triangular because the GST legislation was rapidly evolving with respect to policy updates. The granularity of insights related to specific MSME sub-sectors is also weakened by the fact that the analysis did not consider making any provisions with respect to sector-specific nuances, other than the high-level categories of manufacturing, retail, logistics, and IT services.

Conclusion of the Study

The study reaches the conclusion that, although, theoretically, the GST was developed as the single tax system in order to make compliance safer and taxes simpler, at the practical level, it has led to significant operational challenges to the MSMEs. Microbusinesses are affected more by the barriers of the infrastructure and the digitalization. Even though the general populace is informed about the rules of GST or the schedule of filing and tax brackets, in reality it is still challenging to comprehend and

follow through with those, which leads to overstraining working capital and delays in the process. Statistical research indicates that the type of organization will significantly influence the issues of digital compliance, but the demographic character traits will only exert modest influence on the stress involved with GST. Refund processing, simplicity of returns, is one of the most important areas of reform as per recommendations that occurred within a priority index model. On the whole, the GST regime is much dependent on user-friendly platform adjustments, platform support personalizations, and simplified compliance frameworks to succeed among MSMEs. This would not be the case with the purported benefits that would come along with a unified taxation scheme for MSMEs in that one would not see any of the benefits unless these operational challenges are addressed at the onset, which could hamper the growth of this important industry.

References

1. Antonyraj R, Kumar P. Impact of GST on MSMEs: A critical assessment of Rajasthan State. J Commerce Account Res. 2023. https://doi.org/10.21863/jcar/2024.13.4.010
2. Chauhan G. Impact of GST on MSME. Int J Sci Res Eng Manag. 2022. https://doi.org/10.55041/ijsrem14518
3. Dhillon FMS, Gautam RK. A critical assessment of the impact of GST on MSMEs in the state of Punjab. Gyan Manag J. 2022. https://doi.org/10.48165/gmj.2022.16.2.1
4. Garg R, Modi RK, Bhayani S. Impact of GST on MSMEs: A critical assessment of Rajasthan State. J Commerce Account Res. 2024. https://doi.org/10.21863/jcar/2024.13.4.010
5. Gawande A, Kolhe A, Shekatkar T, Shrivas S, Khandelwal T. GST implementation and compliance challenges for MSMEs: A post-reform analysis. ShodhKosh J Vis Perform Arts. 2024. https://doi.org/10.29121/shodhkosh.v5.i5.2024.2454
6. Mallikarjun, Soni V. Impact of GST on MSMEs: A study of challenges, opportunities and economic implications in Durg Division, Chhattisgarh. ShodhKosh J Vis Perform Arts. 2024. https://doi.org/10.29121/shodhkosh.v5.i6.2024.3039
7. Madasu BRM. Unraveling the effect of GST on the growth and development of Micro, Small, and Medium Enterprises (MSMEs). Int J Sci Res. 2024. https://doi.org/10.21275/sr24203181536
8. Mitra S. Impact of Goods and Service Tax (GST) on MSMEs in India. Int J Innov Technol Explor Eng. 2018. https://doi.org/10.35940/ijitee.i3273.0789s319
9. Mohan V, Ali S. Assessment of the implications of GST rollout on Indian MSMEs. Theor Econ Lett. 2018;8:3567-3580. https://doi.org/10.4236/TEL.2018.815219
10. Pandey P, Raj JN. A study on GST compliance issues faced by MSMEs with special reference to the state of Karnataka. VISION J Indian Tax. 2022. https://doi.org/10.17492/jpi.vision.v9i2.922201
11. Shetty D, Geeta T, Mathiraj SP, Bharathi MT. Impact of GST on MSMEs. Int J Recent Technol Eng. 2019;8(2S6).
12. Singh U. Impact of GST on Indian Businesses. Int J Sci

Res Eng Manag. 2024.
https://doi.org/10.55041/ijsrem33628

13. Sureka A, Bordoloi N. The impact of blocked credit and unavailability of input tax credit on MSMEs in India: An empirical study. J Tax Reform. 2024. https://doi.org/10.15826/jtr.2024.10.3.185

14. Jayalakshmi M, Venkateswarlu G. Impact of GST on micro, small and medium enterprises (MSMEs). International Journal of Engineering and Management Research (IJEMR). 2018;8(2):91-95.

15. Turka SK, Singh SG. Impact of goods and service tax (GST) on micro, small and medium enterprises (MSMEs). Academic Discourse. 2017;6(2):89-93.

16. Mary A, Dayan J, Leone G, Postel C, Fraisse F, Malle C, *et al*. Resilience after trauma: The role of memory suppression. Science. 2020 Feb 14;367(6479):eaay8477.