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Impact of GSTN Portal Issues on GST Compliance and Business Operations: An Empirical Study of MSMEs in Satna District, Madhya Pradesh

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Abstract - This study evaluates how Goods and Services Tax Network (GSTN) portal issues affect GST compliance and business operations among Micro, Small, and Medium Enterprises (MSMEs) in Satna District, Madhya Pradesh. Taking a sample of 150 respondents (MSME owners, accountants, and tax practitioners) with secondary government reports, this paper finds that frequent downtime, return errors, delayed Input Tax Credit (ITC) reflection, and login issuesetc, lead tovery high compliance costs, loss of many working hours, and tied-up working capital and many other things . Upgrading infrastructure, simplifying filing procedures, and improving helpdesk services and many other things are recommended.

Keywords: GSTN Portal, GST Compliance, MSMEs, Technical Issues, GST Returns, Input Tax Credit, Digital Taxation, Satna District, Business Operations, GST Administration.

Introduction - The Goods and Services Tax (GST), was introduced on 1 July 2017. GST brought together indirect taxation in India to improve transparency and ease of doing business. The GSTN portal provides the digital infrastructure for registrations, return filing, tax payments, ITC reconciliation, and e-way bill generation and many other things. Despite its success, manytechnical issues such as portal downtime, slow response times, login failures, and delayed ITC reflections burden taxpayers etc still exist. Especially MSMEs with limited technological and financial resources are affected the most.

Background of the Study: GSTN has grown into a comprehensive digital compliance system. For MSMEs in industrial districts like Satna, MP, portal access without much issue is very important for business continuity. System slowdowns during peak filing periods create many compliance hurdles that need to be addressed.

Statement of the Problem: Continuous portal glitches cause delayed GST return filings, higher reliance on tax consultants, financial penalties, and many times create a working capital constraints. There is a need to analyse and evaluate how these technical shortcomings are impacting compliance efficiency and operational continuity in small businesses in INDIA.

Research Gap: Existing literature on GST in India has mainly focusedon many things like GST implementation, tax reforms, GST compliance, revenue generation, and the overall impact of GST on the economy. So Many studies researches havetold the benefits and challenges of GST from a large perspective. However, limited empirical research has specifically examined the impact of GSTN portal-related technical issues on GST compliance and business activities and operations.

Most of previous studies place high reliance on secondary data and focus on national-level analysis. There is a lack of district-level empirical studies that investigate the practical difficulties faced by MSMEs while using the GSTN portal. Actually, only few studies have examined the relationship between GSTN portal issues, compliance efficiency, compliance costs, working capital management, and business performance in the context of MSMEs.

In addition to this no significant empirical study has been found by us that specifically focuses on MSMEs operating in Satna District, Madhya Pradesh. This study of ustry to bridge this gap by providing primary data-based evidence regarding GSTN portal challenges and their impact on GST compliance and business operations among MSMEs in the study area.

Objectives of the Study:

1. To evaluate the frequency and major types of technical issues (such as downtime, return filing errors, ITC reconciliation, and login/OTP problems) faced by MSMEs on the GSTN portal in Satna District.
2. To analyse impact of GSTN portal issues/glitches on GST compliance efficiency, including delay in filing of GST returns, difficulty in claiming Input Tax Credit (ITC), and penalty risks.
3. To know the effect of GSTN portal issues on business

activities and operations and performance, specifically regarding in Satna compliance costs, working capital availability, and productivity loss.

4. To know the level of satisfaction among owners of MSMEs, accountants, and tax professionals regarding the functionand user experience of the GSTN portal.
5. Torecommend or suggest policy recommendations if found and technological measures for improving GSTN portal performance,and enhancing helpdesk support, and streamlining filing procedures.

Review of Literature

Garg (2017) : Garg hasexamined the concept and implications of the Goods and Services Tax in India. His study highlighted that GST has simplified the Indianindirect tax structure and improved transparency in taxation. Although, he observed that successful implementation of GST largely depends upon a robust technological infrastructure and effective taxpayer support systems.

Purohit and Purohit (2018) : The researchers analysed the challenges faced by businesses after the implementation of GST. In theirstudy , they found that technologicaldifficulties and complexities, return filing procedures, and other many compliance requirements created difficulties for small businesses during the beginning years of GST implementation. Hetold the importance of strengthening digital tax infrastructure.

Kumar and Sharma (2019) : Kumar and Sharma studied GST compliance among small and medium enterprises. His study told that frequent procedural changes, technological issues, and lack of awareness increased the compliance burden on MSMEs. The researchers arrived at conclusion that technological stability is essential for improving voluntary tax compliance.

CBIC Annual Report (2021) : As per our to the Central Board of Indirect Taxes and Customs (CBIC), report the digitalization through GSTN has improved transparency a lot and tax administration in India. The report highlighted improvements in return filing, tax monitoring, and data integration, butit also acknowledged the need for continuous technological upgrades and better taxpayer facilitation mechanisms.

Singh and Verma (2021) :Singh and Verma study explained the role of technology in GST andthey found that GSTN has contributed a lot to digital governance, but taxpayers frequently experienced portal downtime, login issues, and delays in processing GST-related transactions. This study of themsuggested tostrengthen server capacity and improving system reliability.

Gupta (2022) : Gupta analysed in detail the impact of GST requirements regarding compliance on MSMEs. His findingstold that there are many technical challenges which are linked with return filing and ITC reconciliation increased compliance costs and other things . The study also revealed that smaller businesses were more vulnerable to technology-related compliance difficulties.

GST Council Report (2023) :The GST Council has told and emphasized importance of continuous but slow improvement in GSTN infrastructure.As per them It is necessary to support growing transaction volumes. The report of the council also highlighted efforts to improve portal performance, reduce filing errors, and to enhance taxpayer services. The report of this GST council alsoduly acknowledged the need for better user experience and faster grievance redressal mechanisms.

Mishra and Tiwari (2024) :Mishra and Tiwari studied compliance related to digital tax among MSMEs in India. His study found that there are many technical issues in online tax platforms adversely affected compliance efficiency, business productivity, and working capital management. They recommendedthe simplified digital processes and stronger technological support for all the small businesses.

Summary of Literature Review

The review of literature highlights and gives an indication that GST has now improved transparency and efficiency a lot in India. So many Old studies have highlighted the benefits of digital tax administration through GSTN and also identified many challenges such as portal downtime, return filing errors, ITC reconciliation issues, and increased compliance burden on MSMEs. Most existing studies focus on GST implementation and compliance at the national level and rely mainly on secondary data. Very very Limited research has specifically examined the impact of GSTN portal-related issues on GST compliance and business operations usingprimary data from MSMEs. Furthermore, very few studies have focused on district-level analysis, particularly in Satna District, Madhya Pradesh. The present study attempts to fill this gap by providing empirical evidence based on primary data collected from MSMEs and tax professionals regarding the impact of GSTN portal issues on GST compliance and so many other business operations.

Conceptual Framework of the Study: The conceptual framework of the present study presented here explains the relationship between GSTN portal issues, GST compliance, and business operations among MSMEs. GSTN portal-related technical problems such as portal downtime, slow server response, return filing errors, ITC reconciliation issues, login failures, and payment-related glitches act as the main factors affecting taxpayers.

These technical issues are affecting GST compliance by causing delays in return filing, difficulties in claiming Input Tax Credit (ITC), increased dependence on tax professionals, and a higher risk of penalties. So, compliance-related challenges adversely affect business operations through increased compliance costs, working capital constraints, productivity loss, and delays in business decision-making.

Figure 1: Conceptual Framework of the Study

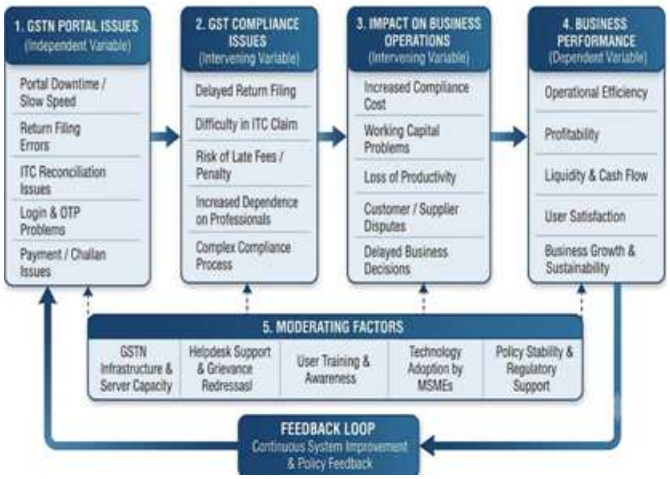


Figure 1: Conceptual Framework of the Study

Research Methodology

1. Research Design: Nature: Descriptive and Exploratory , Analytical dimension of this study is limited to percentage distribution, and cross tabulation and graphical presentation of survey data.

Approach: Quantitative Survey

Area of Study: Satna District, Madhya Pradesh

2. Sample Size: 150 convenience sampled respondents : Manufacturing (42), Trading (54), Service (36) and Tax Professionals (18)

3. Sources of Data: Primary: Questionnaires distributed among the respondents including owners of MSMEs, accountants and GST practitioners.

Secondary: Report of CBIC, GST council, Ministry of finance, RBI and academic journals.

4. Data Collection Method: Conducted field survey with help of structured questionnaire and discussion with respondents.

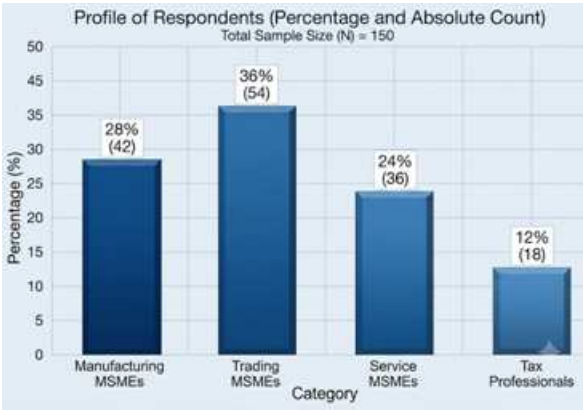
5. Data Analysis Method: Data analysed with the help of percentage analysis method and presented in the form of Bar Charts & Pie Charts.

6. Limitations of the Study:

1. This study is limited to Satna district of MP.
2. Sample size is limited to only 150 respondents.
3. Method of convenience sampling has been used.
4. Results obtained on the basis of the response of respondents and there may be biasness in it.
5. Time and resource limitation for conducting survey.
6. Study is focused on only GSTN portal related issues.4. Data Analysis and Interpretation

Table 1: Profile of Respondents

Category	Respondents	Percentage (%)
Manufacturing MSMEs	42	28
Trading MSMEs	54	36
Service MSMEs	36	24
Tax Professionals	18	12
Total	**150**	**100**

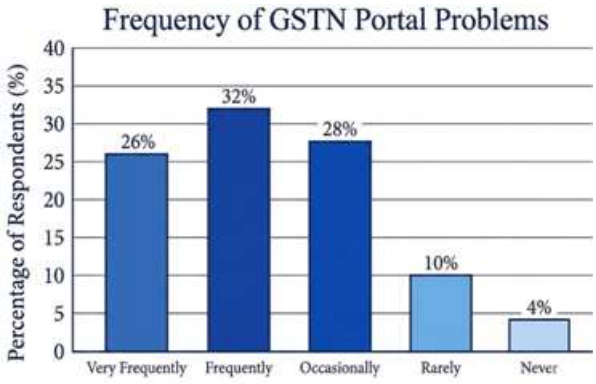


Interpretation of Table 1: Profile of Respondents

IT shows the demographic profiledetails of the 150 respondents who were surveyed in which Trading MSMEs was found to be the biggest group, accounting for 36% (54 respondents), then Manufacturing MSMEs at 28% (42 respondents) was the second bigger group . Service MSMEs represent 24% (36 respondents) of the sample, here Tax Professionals was the smallest group at 12% (18 respondents). Overall, the sample gives a well-rounded representation across various business sectors and tax practitioners.

Table 2: Frequency of GSTN Portal Problems

Frequency	Respondents	Percentage (%)
Very Frequently	39	26
Frequently	48	32
Occasionally	42	28
Rarely	15	10
Never	6	4
Total	**150**	**100**

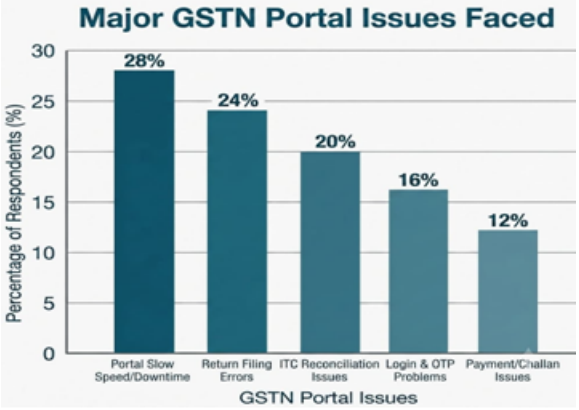


Interpretation ofTable 2: Frequency of GSTN Portal Problems

Interpretation of Table 2 : It highlights how frequently the respondents experience technical problems on the GSTN portal. 58% face technical glitches regularly, with 32% encountering them frequently and 26% very frequently. 28% experience issues occasionally, 10% report rare disruptions, and only 4% state they never experience portal issues. This indicates that GSTN technical disruptions are a widespread concern for most users.

Table 3: Major GSTN Portal Issues Faced

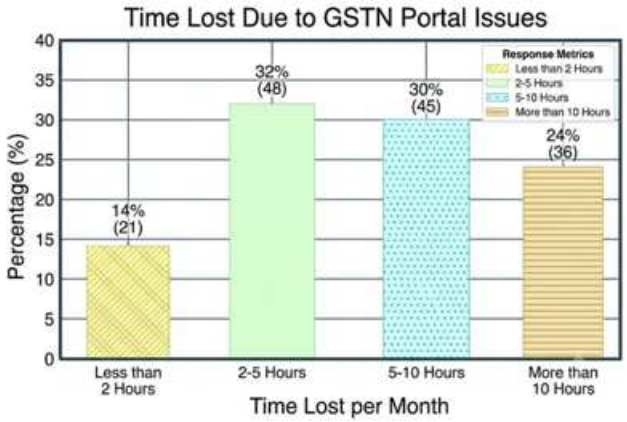
Issue	Respondents	Percentage (%)
Portal Slow Speed/ Downtime	42	28
Return Filing Errors	36	24
ITC Reconciliation Issues	30	20
Login & OTP Problems	24	16
Payment/Challan Issues	18	12
Total	**150**	**100**



Interpretation of Table 3: Major GSTN Portal Issues Faced
Interpretation of Table 3 : The details the specific operational problems encountered by the respondents while using the portal. The most critical issue is portal downtime and slow server speed, reported by 28% (42 respondents). Return filing errors are the second most common problem at 24%, ITC reconciliation issues at 20%. Additionally, login/OTP glitches and payment/challan errors account for 16% and 12% of the total issues, respectively.

Table 4: Time Lost Due to GSTN Portal Issues

Time Lost per Month	Respondents	Percentage (%)
Less than 2 Hours	21	14
2–5 Hours	48	32
5–10 Hours	45	30
More than 10 Hours	36	24
Total	**150**	**100**

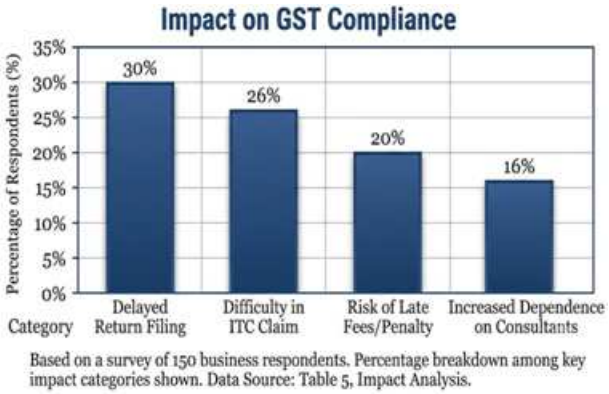


Interpretation of Table 4: Time Lost Due to GSTN Portal Issues

Table 4 measures the monthly working hours lost by businesses as a result of GSTN portal glitches. The biggest respondents, 32%, loses 2 to 5 hours each month, then 30% are the respondents who lose 5 to 10 hours. 24% of respondents experience severe productivity losses exceeding 10 hours per month. 14% report losing less than 2 hours monthly, significant time drain due to system failures.

Table 5: Impact on GST Compliance

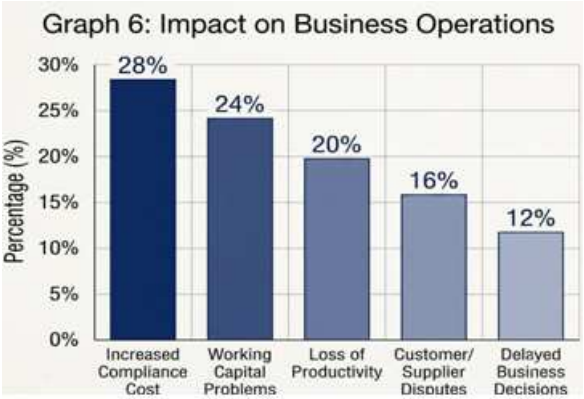
Impact Area	Respondents	Percentage (%)
Delayed Return Filing	45	30
Difficulty in ITC Claim	39	26
Risk of Late Fees/Penalty	30	20
Increased Dependence on Consultants	24	16
No Significant Impact	12	8
Total	**150**	**100**



Interpretation of Table 5:Impact on GST Compliance
Table 5 shows how GSTN technical difficultiesare troubling taxpayers' statutory compliance activities. Late return filing emerges as the biggestcompliance hurdle, affecting 30% of respondents. Difficulties in claiming Input Tax Credit (ITC) impact 26%, whereas 20% report being exposed to risks of late fees and penalties. 16% face increased reliance on tax consultants, with only 8% stating that portal issues have no significant impact on compliance.

Table 6: Impact on Business Operations

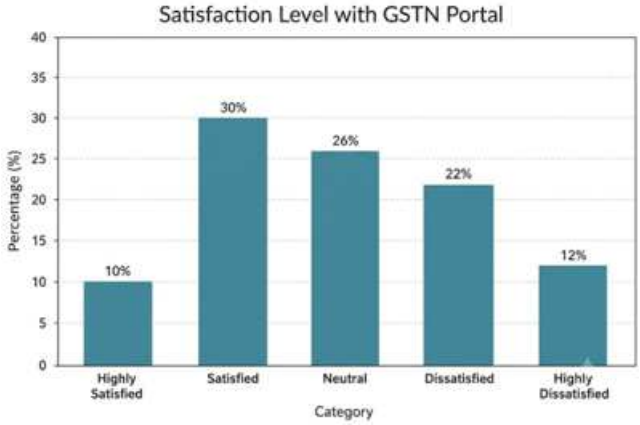
Impact Area	Respondents	Percentage (%)
Increased Compliance Cost	42	28
Working Capital Problems	36	24
Loss of Productivity	30	20
Customer/Supplier Disputes	24	16
Delayed Business Decisions	18	12
Total	**150**	**100**



Interpretation of Table 6: Impact on Business Operations
Table 6 shows consequences of GSTN portal failures, on core business operations and avtivities. Increased compliance costs affect 28% of the sample, while 24% suffer from working capital bottlenecks due to blocked credits. Productivity losses are experienced by 20% of businesses, 16% face customer or supplier disputes, and 12% suffer from delayed business decision-making.

Table 7: Satisfaction Level with GSTN Portal

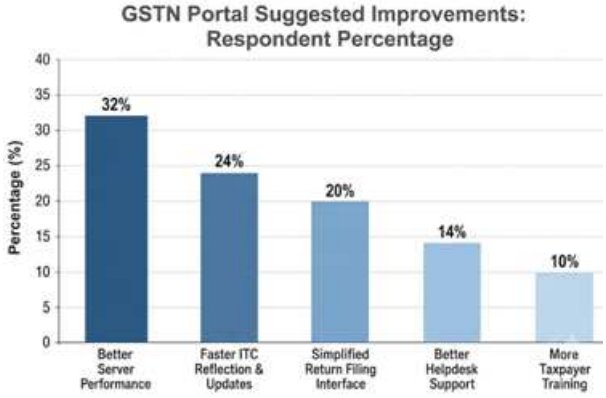
Category	Respondents	Percentage (%)
Highly Satisfied	15	10
Satisfied	45	30
Neutral	39	26
Dissatisfied	33	22
Highly Dissatisfied	18	12
Total	**150**	**100**



Interpretation of Table 7: Satisfaction Level with GSTN Portal
Table 7 shows the overall user satisfaction levels ,regarding the GSTN portal. 34% of respondents shown dissatisfaction (22% dissatisfied and 12% highly dissatisfied). Neutral responses is at 26%, 30% of users are satisfied and 10% are highly satisfied. The data shows that dissatisfied users are more than the highly satisfied ones, signalling a clear need for system enhancement.

Table 8: Suggested Improvements in GSTN Portal

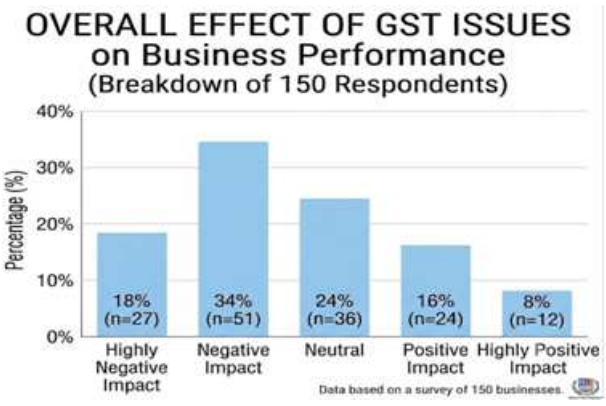
Suggestion	Respondents	Percentage (%)
Better Server Performance	48	32
Faster ITC Reflection & Updates	36	24
Simplified Return Filing Interface	30	20
Better Helpdesk Support	21	14
More Taxpayer Training	15	10
Total	**150**	**100**



Interpretation of Table 8:Suggested Improvements in GSTN Portal
Table 8 categorizes key recommendations provided by users to improve the GSTN ecosystem. Upgrading server performance to improve portal speed is suggestion from 32% of respondents. Faster ITC reflection/updates (24%) and a simplified return filing interface (20%) are also strongly recommended. Theremaining respondents call for enhanced helpdesk support (14%) and broader taxpayer training programs (10%).

Table 9: Overall Effect of GSTN Issues on Business Performance

Response	Respondents	Percentage (%)
Highly Negative Impact	27	18
Negative Impact	51	34
Neutral	36	24
Positive Impact	24	16
Highly Positive Impact	12	8
Total	**150**	**100**



Interpretation of Table 9:Overall Effect of GSTN Issues on Business Performance

Table 9 highlights the broad impact of GSTN portal issues on overall business performance. A 52% report a negative effect, consisting of 34% reporting a negative impact and 18% experiencing a highly negative impact. Neutral views account for 24%, whereas 16% report a positive impact and 8% see a highly positive impact. This demonstrates that unresolved system issues continue to impose a burden on business operations.

Discussion and Analysis: We analysed the primary data from 150 respondents they told that GSTN portal-related issues continue to affectGST theircompliance and business operations among MSMEs in Satna District. The findings of this research tells that although the GSTN portal has improved the digitization of tax administration, so many technical and operational challenges remain a graveconcern for taxpayers.

Theprofile of respondents exhibit that the study covers a different type of group of many stakeholders, including manufacturing, trading, and service-sector MSMEs and many tax professionals. This diversity givesus a comprehensive understanding of GSTN-related challenges across different business categories.

The findings of our survey show that a majority of respondentshave experiencemany GSTN portal issues on a random or regular basis. More than half of the respondents has complained or reported aboutfacing technical difficulties either frequently or very frequently. This thinggives indication and also suggests that GSTN portal problems are not isolated incidents but these are like recurring challenges that directly affect business compliance activities for sure.

Among the many technical issues which exist now a days, downtime of the GST portal , showing website is under maintenance and slow server response emerged as the most common problems. So many Respondents also reported return filing errors, ITC reconciliation difficulties,sudden login failures, OTP verification issues like even after putting right otpsystem doesn't proceed, and payment-related glitches like even after payment the window of portal shows "payment initiated" but does not show payment successful at that very time of payment .All These findings indicate that performance of the system and reliability remain critical thing for taxpayers, especially during peak time of return-filing like 10th or 20th day of each month.

The study also reveals that GSTN portal issues alsoresult in a significant loss of productive time. A big proportion of respondents said that they had spent more than five hours per month resolving portal-related problems. This extra time burden increases administrative workload and diverts attention from core business activities , because if they will focus on such issue of portal , they will surely loose some focus from their core business.

The impact on GST compliance is very important. late return filingeg after 20th of the each month was identified as the most common consequence of GSTN portal issues, followed by difficulties in claiming Input Tax Credit (ITC) and increased risk of penalties due to late compliance. Many respondents said that there is a big dependence on tax consultants and accountants is necessary for them , which further increases their compliance costs.

This analysis also tell usthe manyadverse impact of GSTN portal issues on business operations of the tax payers . Increased compliance costs has now emerged as the most significant business consequence, followed by working capital constraints resulting from delayed ITC reflection and reconciliation due to portal down time , late response and many other issues.Many persons reported Productivity losses, customer-supplier disputes, and delays in business decision-making . These findings suggest that GSTN-related issues affect not only tax compliance but also the overall operational efficiency of businesses of tax payers.

The satisfaction analysis as shown in this research shows us that a large proportion of respondents are eithernot satisfied or highly dissatisfied with the current performance of the GSTN portal as if one issue is resolved another different issue comes. Although some persons expressed satisfaction, the overall results indicate that there is a big scope for improvement in portal functionality, system stability, and user experience.

Respondents also suggested manytools and measures for improving the effectiveness of the GSTN portal. The most recommended improvements include better server performancebecause server works really very slow many times, faster ITC updates, simplification of the return-filing process, improved GST helpdesk support, and enhanced taxpayer awareness and training programs. These suggestions show the practical expectations of taxpayers and indicate areas where policy intervention can improve compliance efficiency.

The overall assessment if we do of respondentswe find that GSTN portal issues have a very negative impact on business performance. More than half of the respondents believe that technical problems in the GSTN portal affect their business operations in negative way , compliance efficiency, and financial management are also negatively affected by portal issues. This finding add support to the view that the effectiveness of GST compliance is closely linked to the reliability and performance of the GSTN portal. Hence, the study concludes that although GSTN has played a vital and important role in promoting digital tax administration in India, constant and continuous technological upgrades, stronger server infrastructure, better refresh rate of server ,faster grievance redressal mechanisms, and simplified compliance procedures are necessary to enhance taxpayer satisfaction and improve the overall effectiveness of the GST system that will

ultimately improve performance of business in India too.

The Study's major findings or Key Results :

1. MSMEs often experience GSTN portal downtime and slow server response.
2. Issues with GSTN cause substantial delays in the filing of GST returns and ITC claims.
3. The inefficiencies of the portal lead to an increase in compliance costs and working capital issues.
4. The GSTN portal continues to receive moderate to low satisfaction from taxpayers. Both GST compliance and company efficiency can be greatly enhanced with better infrastructure and quicker ITC processing**.**

Conclusion: This present study which is done by us analysed and examined the impact of GSTN portal issues on GST compliance and business operations among MSMEs in Satna District, Madhya Pradesh. The study was based on primary data collected from 150 respondents, including manufacturing, trading, and service-sector MSMEs and tax professionals too. The findings of our study provide very valuable knowledge / insights into the practical challenges which are being faced by taxpayers while using the GSTN portal and their implications for business performance and compliance efficiency.

Our study show that GSTN portal-related issues continue to be a very mainand big concern for MSMEs. Technical problems such as portal downtime, slow server response, return filing errors, login and OTP verification issues, and delays in Input Tax Credit (ITC) reconciliation are commonly experienced by taxpayers. These issues not only create problemin smooth GST compliance but also such issues increase the time and effort required to fulfil statutory obligations thus so many precious working hours are lost.

The analysis furthershow that GSTN portal inefficiencies have a directvery impact on GST compliance. Delay in GST return filing, difficulties in claiming ITC, increased dependence on tax professionals, and the risk of penalties due to late compliance were identified as major result or outcome of portal-related problems. These findings of our study suggest that effective GST compliance is highly dependent on the reliability and performance of the GSTN system.

Our study also brings into lime light the so many adverse or negative impact of GSTN portal issues on business operations. Increased compliance costs, working capital constraints arising from delayed ITC reflection, loss of productivity, and operational inefficiencies were reported by a substantial number of respondents. Theseexisting challenges are really very very significant for MSMEs, which often operate with limited financial and technological resources.

The findings of this researchalsoshow that although our GSTN portal has mainly contributed to the digitization in India and modernization of tax administration in India, taxpayer satisfaction remains moderate and not at high level due to recurring technical difficulties. Respondent person strongly emphasized the need for better server performance, faster ITC processing, simplified return filing procedures, improved helpdesk support, and regular taxpayer awareness programs.

Overall in nut shell, this study provides district level empirical evidence from SATNA district and concludes that GSTN has become an indispensable and really very important component of India's GST framework and has significantly improved transparency and digital tax administration but the persistence of technical and operational issues continues to affect GST compliance and business efficiency, particularly among MSMEs , so, continuous technological upgrades, stronger digital infrastructure, efficient grievance redressal mechanisms, and taxpayer-centric reforms are essential to enhance the effectiveness of the GSTN portal and ensure a smoother compliance environment.

In the conclusion we can say, addressing GSTN portal-related challenges will not only improve taxpayer satisfaction and compliance efficiency and their reliance but it will also contribute to the broader objective of creating a more transparent, efficient, and business-friendly GST ecosystem in India.

Recommendations / Suggestions: Inour study, we suggest the following things as they will improve the efficiency and ease ofcompliance.

1. Strengthen Infrastructure: We suggest to Upgrade server capacity to eliminate downtime during peak filing deadlines.
2. Optimize ITC Systems: We strongly recommend Govt. to Enable real time ITC updates so as to prevent working capital blockages.
3. Simplify UI: Concerned persons should work more Simplify form filling and reduce navigation complexity.
4. Dedicated Helpdesk: We recommend to Set up grievance redressal services that works in a quick and fast manner these should be specifically designed for MSMEs.
5. Real time Error Validation: It is very important to Add automated checks to catch entry errors prior to final submission, more the automated checks better will be filing.
6. Policy Stability: We suggest Limit or keep it minimum the frequent changes in portal interface and filing steps to foster a predictable environment.

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