

Exploring Gst Efficiency In India: The Interplay Of Trust, Technology, And Compliance Dynamics

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ABSTRACT

This paper examined the effectiveness of India's GST system, focusing on the dynamics of compliance, technology, and trust since the system's introduction in 2017. This study highlights the persistent problems that impact compliance cost and taxpayer confidence, including policy changes, technical difficulties, and intergovernmental conflicts. By examining the connections between the dependent variable, the effectiveness of the GST system, and factors such as governance trust, digital literacy, adaptive compliance behaviour, and perception of decentralisation, quantitative data were collected. Key stakeholders were interviewed, and GST-registered taxpayers were surveyed. By examining the connections between the dependent variable, the effectiveness of the GST system, and factors such as governance trust, digital literacy, adaptive compliance behaviour, and perceptions of decentralisation, quantitative data were collected. Key stakeholders were interviewed, and 300 GST-registered taxpayers were surveyed. The results show that digital literacy ($r = 0.802$) and adaptive compliance behaviour ($r = 0.782$) are strongly positively correlated with the efficiency of the GST system. Governance trust exhibited a moderate correlation ($r = 0.602$), whereas decentralisation perception also demonstrated a significant positive correlation ($r = 0.610$). All predictor variables have a positive impact on the efficiency of the GST system, according to regression analysis, with digital literacy being the most important component. The conclusion highlights how crucial digital infrastructure and user expertise are to improving GST efficiency, as well as how crucial flexible compliance practices and decentralisation attitudes are to promoting efficient tax administration.

Keywords: GST, compliance efficiency, government trust, digital literacy, decentralisation.

1. INTRODUCTION

Implementing the Goods and Services Tax (GST), India's financial situation has changed significantly in 2017. It aggregates several kinds of indirect taxes into one system under a consumption-based approach. Apart from operational effectiveness, elements like stakeholder opinions, institutional trust, and adaptive compliance strategies influence operational efficiency as well. The micro-level factors influencing taxpayer evaluations of the Goods and Services Tax (GST) efficiency receive little empirical focus. These qualities consist of structural decentralisation, adaptable technological developments, and government trust.

Rather than being essentially the result of regulatory enforcement, tax compliance reflects taxpayers' improved faith in the fairness, openness, and predictability of the system. Under India's Goods and Services Tax (GST) system, ongoing issues including regular policy changes, technical flaws in the GST Network (GSTN), and intergovernmental disputes over revenue allocation have resulted in rising compliance costs and falling confidence. Tax administration is fast turning digital in several ways: e-invoicing, automated reconciliations, and real-time reporting. While lowering human error is the aim of digitisation, it is still important to raise digital literacy and infrastructure readiness, especially in small and medium-sized companies (SMES).

Representing the Centre as well as the States, the Goods and Services Tax Council has to find a difficult balance between national consistency and regional economic autonomy. Arguments over compensation schemes, decentralisation of rate-setting authority, and interstate conflicts challenging the clarity of jurisdictional borders all help to explain the mounting strain in fiscal federalism. Compliance technologies are difficult for companies, especially micro, small, and medium-sized businesses (MSMES), to use, maintain with policy changes, and grasp regulatory changes. These issues affect the degree of stress generated as well as the success of compliance.

This paper aims to investigate the relationship between governance trust, digital literacy, adaptive compliance behaviour, and decentralisation views to develop and empirically validate a structural equation model (SEM) that clarifies the perceived efficiency of India's Goods and Services Tax (GST) system. Compliance cost will act as a midway in this research.

2. REVIEW OF LITERATURE

The unification of various federal and state taxes into a single framework aims to create a cohesive national market through the Goods and Services Tax (GST). Nayyar and Singh (2018) provide a comprehensive analysis of the changes brought about by the GST, highlighting its objectives to eliminate the cascading tax effect, enhance transparency, and reduce tax evasion. It is anticipated that revenue generated from the destination-based GST will lead to improved compliance and an expanded income base, potentially resulting in a 1%–2% increase in India's GDP. Understanding the theoretical foundations and initial policy goals of the GST is of significant importance.

To achieve effective tax administration and compliance, the Goods and Services Tax (GST) has adopted a technology-focused approach that emphasises digital operations. In the *International Journal of Financial Management and Research (IJFMR)*, Harikrishnan et al. (2024) highlight the significant role that technological advancements play in facilitating GST compliance. Their research underscores the potential for integrating IT systems to streamline processes related to file management, invoicing, and reconciliation. Additionally, the authors argue that the considerable disparities in digital readiness across India could make a standardised approach ineffective, despite the potential for technology to enhance accuracy and administrative efficiency. To address the challenges faced by small and semi-urban enterprises, they propose adaptable and contextually relevant technical solutions.

Bhasin (2018) discusses the development and implementation of the Goods and Services Tax Network (GSTN), which functions as the digital backbone of the GST framework. The study highlights the vital role of the GSTN in providing a uniform platform for taxpayers, enhancing the online tax filing process, and increasing overall transparency. The findings indicate that the GSTN marks a significant advancement in the delivery of government services, greatly improving efficiency, accountability, and a user-centric approach within tax administration.

Mukherjee (2020) analyses the effectiveness of GST income distribution. The empirical studies suggest that the efficacy of the GST law is significantly influenced by the structural and financial composition of governments. A paradox arises in which more affluent states demonstrate lower GST efficiency, indicating that their potential for income generation is not being fully maximised. The study's findings reveal that by implementing enhanced tax regulations, such as closing loopholes and strengthening compliance measures, larger states could potentially boost their Goods and Services Tax (GST) revenue by approximately 0.52% of their Gross State Value Added (GSVA).

Published by Emerald, the research paper "Navigating GST Revenue Efficiency Challenges" (2024) provides a comprehensive analysis of the factors influencing the effectiveness of GST collection. The study identifies several key challenges, including infrastructure limitations, administrative delays, and issues related to collaboration with government entities. The findings emphasise the crucial need for targeted financial strategies and reforms within state tax departments to better align with the goals of the GST. This research has the potential to significantly aid decision-makers in addressing efficiency disparities and ensuring that the benefits of the Goods and Services Tax (GST) are equitably distributed across various states.

The 2024 study project "Investigating the Compliance Behaviour of GST Taxpayers," published in the Wiley Online Library, explores the various structural, behavioural, and psychological factors affecting GST compliance. The research is based on primary data collected through surveys and reveals that, although awareness of GST has improved since its introduction, many small and medium-sized enterprises (SMES) still struggle with issues like technological adaptation, the complexity of compliance, and a sense of inequity in the tax administration process. The authors argue that a comprehensive approach—focused on education, transparency, and building trust—is crucial for encouraging voluntary compliance. This research is vital for developing policies that address the needs of taxpayers, rather than relying solely on enforcement tactics.

2.2 Research objective:

- To examine the association between government trust, digital literacy, decentralisation perception, adaptive compliance behaviour and GST system efficiency.
- To explore the impact of influential predictors of GST system efficiency using the regression model.

3. METHODOLOGY OF THE STUDY

This research aims to find out taxpayers' perceptions and attitudes regarding the efficacy of the GST system, their trust in the government, their technological literacy, their adaptability to legislation, and their views on decentralisation. To collect both qualitative and quantitative data of relevance, the survey questionnaires were sent via email to 300 GST-registered taxpayers across various industries and regions, with data collection conducted through Google Forms. A comprehensive investigation will involve interviews with fifteen key stakeholders, including tax consultants, small business owners, and GST officials, utilising a semi-structured format. This approach aims to gather in-depth insights into their experiences and concerns regarding the GST system. The study seeks to provide valuable knowledge on several critical areas, including policy structuring, the use of technology, adherence to regulations, public trust in government, and potential future changes.

The research will use SPSS for data analysis, focusing on descriptive statistics, correlation analysis, and multiple regression. It aims to examine the influence of factors like trust in governance, digital literacy, compliance behaviour, and views on decentralisation on GST system effectiveness. Validation and significance tests will have a p-value threshold of 0.05.

3.1 Variable classification:

Table 1 – variable classification

Variable type	Construct	Abbreviation	Measurement scale
Dependent variable	Perceived GST System Efficiency	GST_EFF	Likert Scale (1–5)
Independent variable	Governance Trust	GOV_TRUST	Likert Scale (1–5)
Independent variable	Digital Literacy	DIG_LIT	Likert Scale (1–5)
Independent variable	Adaptive Compliance Behaviour	ACB	Likert Scale (1–5)
Independent variable	Decentralisation Perception	DECENT	Likert Scale (1–5)

4. RESULT AND DISCUSSION

4.1 Sample description:

The data indicates that the majority of respondents belong to the age group of 20 to 40 years, accounting for 73%, followed by those in the 40 to 60 age brackets at 27%, with a smaller representation from the older age group. In terms of gender, males constitute the majority of individuals involved in GST compliance, at 58%, while females represent 42%. Educational qualifications significantly influence tax compliance behaviours, with most respondents holding an undergraduate degree at 38%. Regarding business types, the largest segments are the service sector at 28% and manufacturing at 54%. In terms of annual turnover, the majority of businesses report a turnover of less than 40 lakhs (52%), highlighting the prominence of small and medium-sized enterprises (SMEs) in the GST filing process. The data further reveals that 80% of businesses depend on tax consultants or accountants, while only 20% choose to file their taxes independently.

4.2 Reliability test

The value of for all constructs is above 0.8 indicating excellent reliability for the five factors in GST_EFF (Perceived GST System Efficiency), GOV_TRUST (Governance Trust), DIG_LIT (Digital Literacy), ACB (Adaptive Compliance Behaviour), DECENT (Decentralisation Perception).

Table 2: Reliability test

variables	α Value	No of items
GST_EFF	.852	5
GOV_TRUST	.845	5
DIG_LIT	.854	5

ACB	.897	5
DECENT	.802	5

Source: Primary data

4.3 Correlation analysis:

The result found that there is a strong positive association between the GST system efficiency and Digital Literacy ($r = 0.802$, $p = 0.001$) and Adaptive Compliance Behaviour ($r = 0.782$, $p = 0.010$). These findings suggest that higher levels of taxpayer digital capability and the adoption of technology-driven compliance mechanisms (e.g., cloud-based filing, e-invoicing) are strongly associated with more favourable perceptions of GST efficiency. Decentralisation Perception also demonstrated a positive correlation and was statistically significant with GST system efficiency ($r = 0.610$, $p = 0.001$), indicating the need for federal consensus and responsiveness to state-level concerns, particularly in sectors like small enterprises. In contrast, while Governance Trust showed a moderate positive correlation ($r = 0.602$), the association was statistically significant ($p = 0.050$) at the 5% significance level. This suggests that trust in data handling, audit fairness, or policy transparency although conceptually important.

Table 3 – correlation

Variable 1	Variable 2	Correlation coefficient (r)	P-value	significance
GST System Efficiency	Governance Trust	.602	.050	Significant
GST System Efficiency	Digital Literacy	.802	.001	Significant
GST System Efficiency	Adaptive Compliance Behaviour	.782	.010	Significant
GST System Efficiency	Decentralisation Perception	.610	.001	Significant

Source: Primary data

4.4 Regression analysis:

The ANOVA results indicate that the model is statistically significant ($F = 22.971$, $p < 0.001$), confirming that the predictor variables GST system efficiency reliably predict the dependent variable. All four predictor variables show a positive and significant association, confirming their expected impact on GST System Efficiency. These findings offer strong empirical evidence supporting the idea that technology adoption and the enhancement of digital capacities among stakeholders are the most effective strategies for improving the performance of the GST system. The statistically significant impact of Decentralisation Perception and Governance Trust underscores the importance of transparent, risk-based governance mechanisms at the federal level to bolster stakeholder engagement and improve compliance effectiveness.

Table 4 – Regression

Predictor variable	Coefficient (β)	p-value	Significance
Governance Trust	0.083	.049	Significant
Digital Literacy	.257	.001	Significant
Adaptive Compliance Behaviour	.184	.001	Significant
Decentralisation Perception	.111	.011	Significant
R = 0.426, R ² = 0.181, F = 22.971, P < 0.001			

Source: Primary data

5. CONCLUSION

This paper used a multivariate analytical framework to look into what factors affect how successful people think India's Goods and Services Tax (GST) system efficiency. The framework includes four factors: Governance Trust, Digital Literacy, Adaptive Compliance Behaviour, and Decentralisation Perception. The study aimed to find out how these components affect opinions on the success of the GST system among stakeholders. Empirical data show that the most important factor predicting GST System Efficiency is digital literacy. This emphasises how important digital infrastructure and user knowledge are in enabling system use and interaction. Those who used integrated systems, e-invoicing, and automation showed adaptive compliance behaviour—behaviour that was closely linked with their perceived efficiency. This shows how people follow tax rules now that technology exists. Especially, Decentralization Perception showed a statistically significant effect. This suggests that the legitimacy and effectiveness of the tax system depend much on public's view of inclusive federal decision-making and fair centre-state relations. Though Governance Trust had a positive impact, it's extremely little influence suggests that trust in administrative equity and privacy may serve more as an enabler than a direct determinant, especially in tax systems that are already heavily computerised.

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