Manuscript ID:
TIJCMBLIR-2026-030244

Volume: 3

Issue: 2

Month: April

Year: 2026

E-ISSN: 3065-9191

Submitted: 18 Mar 2026

Revised: 22 Mar 2026

Accepted: 20 April 2026

Published: 30 April 2026

Address for correspondence:
Dr. Ranjana V. Bansude
Assistant Professor Department of Commerce, R. Burla Mahila Varishtha Mahavidyalya, Solapur
Email: branjana72@gmail.com

DOI: 10.5281/zenodo.21715494

DOI Link:
https://doi.org/10.5281/zenodo.21715494

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GST Compliance in the Digital Era: Issues and Solutions

Dr. Ranjana V. Bansude
Assistant Professor Department of Commerce, R. Burla Mahila Varishtha Mahavidyalya, Solapur

Abstract

The introduction of the Goods and Services Tax (GST) marked one of the most significant indirect tax reforms in India's fiscal history. Designed to unify a fragmented tax system into a comprehensive, destination-based taxation regime, GST has transformed the compliance landscape through extensive digitalization. The implementation of an online GST Network (GSTN), e-invoicing, e-way bills, and automated return filing mechanisms reflects India's transition toward a technology-driven tax administration system. However, while digitization has improved transparency and widened the tax base, it has also introduced new compliance challenges, particularly for small and medium enterprises (SMEs), rural businesses, and taxpayers with limited digital literacy.

This research paper examines GST compliance in the digital era, identifying key operational, technological, legal, and administrative challenges. It analyzes the structural transformation brought by digital platforms, the evolving compliance requirements, and the impact on businesses and tax authorities. The study further explores issues such as system glitches, cybersecurity risks, reconciliation complexities, frequent regulatory amendments, and the digital divide.

The paper proposes strategic solutions including technological capacity enhancement, regulatory simplification, stronger cybersecurity frameworks, targeted training initiatives, and policy reforms aimed at reducing compliance burdens. The findings emphasize that while digitalization enhances efficiency and accountability, balanced policy intervention is necessary to ensure inclusivity and sustainability. The study concludes that the success of GST compliance in the digital era depends on harmonizing technology, governance, and taxpayer empowerment.

Keywords: *GST Compliance, Digital Taxation, Goods and Services Tax (GST),E-Governance, Digital Accounting, Tax Compliance Challenges Portal Input Tax Credit (ITC), Tax Filing Systems, Automation in Taxation, Compliance Issues, Digital Transformation, Tax Administration Small Business Compliance, Regulatory Framework*

Introduction

Taxation forms the backbone of any nation's economic structure, enabling governments to finance public expenditure and promote socio-economic development. In India, indirect taxation prior to 2017 was characterized by multiple levies imposed by both the central and state governments. This multiplicity resulted in cascading tax effects, inefficiencies, and compliance complexities. To address these structural challenges, the Government of India introduced the Goods and Services Tax (GST) on 1 July 2017.

GST represents a comprehensive destination-based tax applied on the supply of goods and services. It replaced various central taxes such as excise duty and service tax, as well as state taxes like VAT and entry tax. Beyond tax consolidation, GST marked a paradigm shift toward digital tax governance. The creation of the GST Network (GSTN) established an online portal for registration, return filing, tax payment, refund processing, and compliance tracking.

The digitalization of GST compliance reflects broader global trends toward e-governance and technology-enabled public administration. Automation, data analytics, artificial intelligence, and system-based reconciliation are increasingly used to improve tax monitoring and reduce evasion. India's GST system incorporates e-way bills, e-invoicing mechanisms, automated return matching, and electronic ledgers, thereby creating an integrated digital compliance ecosystem.

However, digital transformation is not without complications. The transition from manual and semi-manual systems to an entirely technology-driven platform posed adaptation challenges. Frequent amendments, evolving return formats, technological disruptions, and compliance costs have impacted businesses differently. Micro and small enterprises, in particular, face significant hurdles in meeting digital compliance requirements.

How to Cite this Article:
Bansude, R. V. (2026). GST Compliance in the Digital Era: Issues and Solutions. The International Journal of Commerce Management and Business Law in International Research (TIJCMBLIR), 3(2), 234–236. https://doi.org/10.5281/zenodo.21715494

This paper critically examines GST compliance within the digital era framework. It evaluates operational realities, identifies systemic gaps, and proposes practical solutions aimed at strengthening the digital compliance architecture while maintaining equity and efficiency.

Review of Literature

The literature on GST compliance and digital taxation reveals multidimensional perspectives encompassing economic theory, administrative reform, technological integration, and taxpayer behavior. Early studies on GST in India emphasized its potential to eliminate cascading effects and create a unified market (Kelkar, 2011). Scholars argued that GST would increase transparency and broaden the tax base, thereby enhancing revenue efficiency. Subsequent empirical research focused on the structural design of GST and its macroeconomic implications. With the launch of GST, academic attention shifted toward compliance mechanisms. Studies observed that the digital GST portal represented a significant departure from traditional tax administration systems (Purohit, 2018). Researchers noted that automation improved data matching and reduced scope for tax evasion. However, initial implementation challenges such as server overload and return filing errors were widely documented.

Digital governance literature suggests that technology enhances administrative efficiency but requires strong infrastructure and capacity building (Bhatnagar, 2014). In the context of GST, scholars have highlighted the importance of digital literacy among taxpayers, especially small businesses operating in semi-urban and rural regions. Research on compliance behavior indicates that complex regulations increase the cost of compliance and may discourage voluntary compliance (Allingham & Sandmo, 1972). Applied to GST, frequent changes in return formats and reconciliation requirements increase procedural burdens. Studies further show that the introduction of e-invoicing and data analytics strengthens audit trails but demands technological readiness. Recent analyses examine cybersecurity concerns within digital taxation systems. As GST compliance relies on online data exchange, risks related to data breaches, phishing attacks, and unauthorized access have become critical policy concerns.

Overall, existing literature recognizes GST as a transformative reform but identifies implementation and compliance challenges arising from digital integration. There remains scope for comprehensive analysis linking digital governance theory with practical compliance issues and solutions — a gap this study aims to address.

Objectives of the Study

The study is guided by the following objectives:

1. To examine the evolution of GST compliance mechanisms in the digital era.
2. To identify operational, technological, and administrative challenges faced by taxpayers.
3. To analyze the impact of digitalization on compliance costs and business efficiency.
4. To evaluate the effectiveness of technological tools such as e-invoicing and e-way bills.
5. To propose practical and policy-level solutions to enhance GST compliance efficiency.

Scope of the Study

This study focuses on GST compliance in India within the framework of digital transformation. It covers:

a) Registration and return filing systems
b) E-invoicing and e-way bill mechanisms
c) Reconciliation and input tax credit matching
d) Technological challenges
e) Compliance burden on SMEs
f) Cybersecurity concerns
g) Policy and administrative reforms

The study is conceptual and analytical in nature, relying on secondary data sources including government reports, research articles, policy papers, and expert commentary.

GST Compliance

Digital Architecture of GST Compliance

The GST compliance framework is built upon the GSTN portal, which integrates taxpayers, banks, and tax authorities. Key components include:

i. Online registration system
ii. Electronic cash ledger, credit ledger, and liability ledger
iii. Return filing forms (GSTR-1, GSTR-3B, etc.)
iv. E-way bill portal
v. E-invoice system

Automation ensures real-time data reporting and cross-verification of transactions. The integration of APIs allows businesses to link accounting software directly with GSTN, enhancing efficiency.

Key Issues in GST Compliance in the Digital Era

(a) Technological Infrastructure Challenges

Initial years witnessed server crashes and system slowdowns during peak filing periods. Although infrastructure has improved, technical glitches continue to affect compliance timelines.

(b) Frequent Regulatory Changes

GST laws undergo frequent amendments through notifications and circulars. Constant updates create uncertainty and increase professional dependency.

(c) Reconciliation Complexities

Matching input tax credit with supplier data requires constant monitoring. Mismatches lead to denial of credits, increasing working capital pressure.

(d) Compliance Cost for SMEs

Small businesses incur costs related to software, professional consultancy, and staff training. Digital transition increases indirect compliance expenditure.

(e) Digital Literacy Gap

Many small traders lack technical skills to operate digital platforms efficiently, leading to filing errors and penalties.

(f) Cyber security Risks

Data security concerns have grown due to online filing. Risks include phishing scams, unauthorized access, and data breaches.

Impact of E-Invoicing and E-Way Bills

E-invoicing enhances transparency by generating invoice reference numbers (IRN) through centralized systems. It reduces fake invoicing and improves tax tracking. However, integration costs and system readiness remain concerns. E-way bills improve movement tracking of goods but impose compliance responsibilities on transporters and suppliers.

Administrative Perspective

From a governance standpoint, digital GST compliance enables:

- Real-time analytics
- Fraud detection using AI
- Increased revenue collection
- Reduced human interface

However, effective grievance redressal and technical support systems are essential for taxpayer satisfaction.

International Comparison

Globally, countries adopting digital VAT systems emphasize phased implementation and stakeholder training. India's rapid digital rollout provides valuable lessons in scale and adaptability.

Findings, Conclusion and Suggestions Findings

- Digitalization has enhanced transparency and revenue tracking.
- Compliance complexity remains high due to frequent regulatory updates.
- SMEs face disproportionate compliance burdens.
- Technological tools improve monitoring but require infrastructure strengthening.
- Cyber security and data protection need continuous attention.

Conclusion

GST compliance in the digital era represents a transformative governance model that integrates technology with fiscal administration. While digital tools enhance efficiency and reduce evasion, equitable implementation remains critical. Sustainable compliance requires balancing automation with taxpayer support.

Suggestions

1. Simplify return filing formats and reduce frequency of changes.
2. Provide subsidized compliance software for SMEs.
3. Conduct nationwide digital literacy programs.
4. Strengthen cybersecurity infrastructure.
5. Establish robust grievance redressal mechanisms.
6. Introduce stability periods before implementing major compliance changes.

Acknowledgment

I would like to express my sincere gratitude to all those who have supported me in the successful completion of this study on *"GST Compliance in the Digital Era: Issues and Solutions."*

First and foremost, I am deeply thankful to my guide/mentor for their invaluable guidance, constant encouragement, and insightful suggestions throughout the course of this research. Their support has played a vital role in shaping this study.

I would also like to extend my thanks to my professors and the department for providing the necessary academic support and resources required for this work.

I am grateful to the Government authorities and GST-related institutions for providing access to relevant data, reports, and online resources that were essential for this analysis.

I would like to acknowledge the contributions of researchers, authors, and professionals in the field of taxation and accounting whose work has been helpful in completing this study.

I am also thankful to my friends and classmates for their encouragement and support during the preparation of this project.

Financial support and sponsorship

Nil.

Conflicts of interest

The authors declare that there are no conflicts of interest regarding the publication of this paper

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