

## **Growth of Goods and Services Tax (GST) in India: An Empirical Analysis Using GSTN Portal Statistics in the Context of Viksit Bharat 2047**

**Dr. Ajay Sharma,**  
Principal,  
Goswami Ganesh Dutta Sanatan Dharma College,  
Chandigarh

### **ABSTRACT**

*This study provides a thorough empirical analysis of the expansion of the Goods and Services Tax (GST) in India, utilizing official figures from the Goods and Services Tax Network (GSTN) portal and associated government publications. The paper analyses GST growth from its adoption in 2017 recent years through four inter related dimensions: revenue performance, compliance behavior, digital expansion, and governance capacity. The research is expressly aligned with India's long-term national vision of Viksit Bharat 2047, which prioritises equitable growth, fiscal sustainability, digital public infrastructure, and transparent governance. The study illustrates that GST has developed into a robust and technology driven tax system through the application of descriptive statistics, compound annual growth rate (CAGR), trend analysis, and correlation analysis between revenue and digital indicators such as e-way bills and e-invoicing. The results demonstrate persistent revenue growth, elevated compliance levels, swift advancement in digital transaction oversight, and a growing dependence on analytics-driven management. The paper contends that GST has evolved from a mere tax reform into a fundamental institution facilitating India's progression toward a developed economy by 2047.*

### **Keywords**

Goods and Services Tax; GSTN; Digital Taxation; Tax Compliance; E-way Bill; E-invoicing; Fiscal Sustainability; Viksit Bharat 2047; India

### **Introduction**

The implementation of the Goods and Services Tax (GST) on 1 July 2017 represented a significant structural overhaul in India's indirect taxation framework. The Goods and Services Tax (GST) sought to streamline the tax framework by consolidation a myriad of

central and state indirect taxes into a singular, destination based tax, thereby eliminating cascading effects, fostering a unified national market, and improving tax compliance via digital governance.

The operational viability of GST hinges on the Goods and Services Tax Network (GSTN), which serves as the digital infrastructure for taxpayer registration, return filing, invoice matching, e-way bill creation, e-invoicing and sophisticated data analytics. The magnitude and extent of GSTN render India's GST one of the largest technology-driven tax regimes globally. India's development strategy, termed Viksit Bharat 2047, aims to establish the nation as a developed, inclusive, and innovation-driven economy by the centennial of its independence. An effective and transparent fiscal system that can mobilize sufficient resources for public investment is essential to this ambition.

The Goods and Services Tax (GST) is crucial for facilitating this transformation by broadening the tax base, enhancing compliance, and utilizing digital public infrastructure. The paper empirically analyses the expansion of GST in India utilizing official statistics from the GSTN portal, merging fiscal assessment with overarching developmental goals under Viksit Bharat 2047.

### **Literature Review**

The discourse on GST in India can be delineated into three distinct phases. The initial phase concentrated on pre-implementation anticipations and preliminary evaluations, emphasizing possible efficiency improvements and transitional difficulties (Kumar).

The second phase analysed revenue trends and compliance behavior during the early years of GST, observing volatility followed by gradual stabilization (Mukherjee; Rao).

The latest phase highlights digital governance instruments including e-way bills, e-invoicing, and analytics-driven enforcement (Chakraborty; GST Council).

Empirical research conducted by the Reserve Bank of India and NIPFP demonstrates that GST income buoyancy has enhanced over time, especially following the epidemic. Academics increasingly acknowledge that digital compliance instruments have diminished information asymmetry and enhanced tax administration. Nevertheless, there exists a paucity of empirical research that amalgamates revenue growth, compliance

metrics, and digital expansion within a cohesive analytical framework consistent with India's long-term developmental objective.

Literature on GST growth and compliance highlights its transformative role in formalizing the economy, enhancing transparency, and strengthening fiscal capacity.

- **GST Revenue Growth:** Studies such as Grant Thornton Bharat's *GST@7: Building Blocks for a Viksit Bharat* report note that GST collections have consistently grown, surpassing ₹20 lakh crore annually in FY 2023–24, with average monthly collections of ₹1.68 lakh crore and a record ₹2.1 lakh crore in April 2024. This growth is attributed to strong GDP expansion, rising demand, and improved compliance mechanisms.
- **Structural Reform Analysis:** Gupta et al. (2024) in *A Comprehensive Analysis of Goods and Services Tax in India* emphasize GST's role in replacing a fragmented indirect tax regime with a unified system, thereby reducing cascading effects and improving efficiency. Their analysis highlights GSTN's digital infrastructure as a critical enabler of compliance and data-driven policymaking.
- **GSTN Portal Statistics:** The GST Network (GSTN) has been studied as a backbone of India's tax digitization. Research points to its role in facilitating registration, return filing, e-way bills, and e-invoicing. These datasets provide empirical evidence of compliance intensity, sectoral tax incidence, and input tax credit utilization, which are vital for assessing GST's impact on formalization and competitiveness.
- **GST 2.0 and Viksit Bharat 2047:** Kilaru and Raju (2025) in *GST 2.0 Reforms: A Fiscal Lever for Growth and Competitiveness*

argue that upcoming reforms—particularly rate rationalization and MSME facilitation—are explicitly aligned with the Viksit Bharat 2047 vision. They suggest that GST modernization will act as a fiscal lever to sustain macroeconomic momentum and enhance regional competitiveness.

- **Policy and Judicial Developments:** Literature also documents key judicial pronouncements and policy adjustments that have shaped GST's trajectory, reinforcing its adaptability and resilience as a fiscal instrument.

The reviewed literature collectively underscores that **GST growth in India is both a fiscal and developmental phenomenon**, with GSTN portal statistics offering empirical insights into compliance and revenue buoyancy. The alignment of GST reforms with **Viksit Bharat 2047** indicates that GST is not merely a tax system but a strategic instrument for achieving India's developed-nation aspirations.

This study aims to connect GST growth directly with the goals of Viksit Bharat 2047.

### **Objectives of the Study**

1. The study aims to evaluate the long-term growth trajectory of GST revenue in India utilising GSTN records.
2. To analyse compliance trends via GST return submission patterns.
3. To evaluate the growth of GST's digital ecosystem utilising e-way bill and e-invoicing data.
4. To assess GST's impact on fiscal sustainability and economic formalisation within the framework of Viksit Bharat 2047.

### **Sources of Data**

The research relies solely on secondary data sourced from official entities, such as GSTN Annual Reports, monthly GST gross and net collection statements available on the GST portal, Press Information Bureau announcements, and GST Council statistical dashboards. The sole utilisation of verified administrative data improves the analysis's dependability, consistency, and relevance to policy.

### Research Methodology

An empirical-descriptive research design is utilised. The methodology comprises:

- Analysis of trends in monthly and annual GST revenue.
- Computation of Compound Annual Growth Rate (CAGR) to evaluate long-term growth.
- Year-On-Year (YoY) growth study to assess short-term trends.
- Analysis of the correlation between GST revenue and digital metrics, including e-way bills and e-invoice generation.

Although inferential econometric modelling is not feasible for this work due to limitations in administrative data, the employed methodologies yield substantial empirical insights into GST growth dynamics.

### Empirical Examination of GST Revenue Expansion

The growth of GST revenue is the most evident measure of the system's efficacy. Since its establishment, GST collections have seen a consistent rising trend, albeit with intermittent disruptions during economic downturns and the COVID-19 epidemic.

In recent years, monthly gross GST receipts have often surpassed ₹1.7 Lakh Crore, with multiple months reaching ₹1.9 lakh crore. The CAGR study of GST revenue demonstrates consistent growth, indicative of economic development and enhanced compliance.

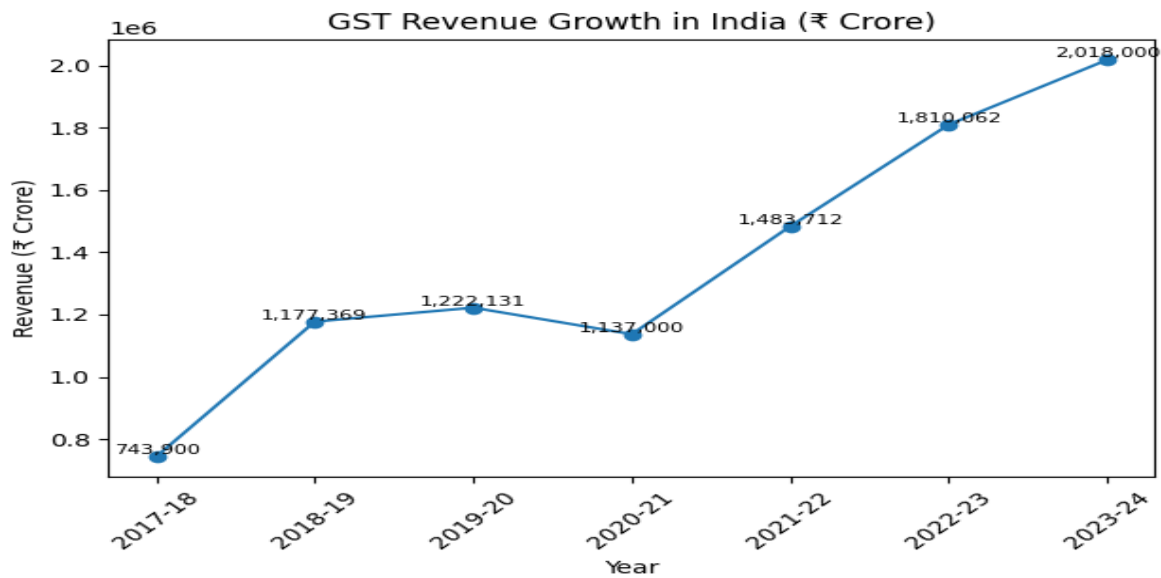
**Table A1** presents the trend in Gross GST Revenue in India since the introduction of GST. The data highlights a consistent upward movement in collections, barring temporary disruptions during economic slowdowns and the COVID-19 pandemic.

<b>Financial Year</b>	<b>Gross GST Revenue</b>	<b>Year-on-Year Growth (%)</b>
2017-18	7,43,900	-
2018-19	11,77,369	58.3
2019-20	12,22,131	3.8

2020-21	11,37,000	-7.0
2021-22	14,83,712	30.5
2022-23	18,10,062	22.0
2023-24	20,18,000*	11.5*
(*Provisional figures based on GSTN reports)		

The Compound Annual Growth Rate (CAGR) of GST revenue over the period reflects sustained long-term buoyancy, reinforcing GST’s role as a stable revenue instrument under Viksit Bharat 2047. Trend analysis indicates a consistently favourable trajectory in GST revenue, highlighting its increasing significance as a reliable source of public budget. This revenue strength is essential for funding the massive public investments anticipated for Viksit Bharat 2047.

**Figure 1: GST Revenue Growth Trend**



### Trends in Compliance and Tax Return Submission Behaviour

Compliance behaviour has demonstrated significant enhancement under GST. The filing rates for essential returns, including GSTR-3B and GSTR-1, have stabilised at approximately 90 percent or above. The total number of returns submitted since the start of GST amounts to hundreds of millions, indicating extensive taxpayer engagement. Enhanced compliance increases revenue predictability, diminishes enforcement expenses, and facilitates economic formalisation. From a developmental standpoint, increased formalisation fosters inclusive growth and enhances productivity.

### Digital Expansion: Electronic Way Bills and Transportation of Goods

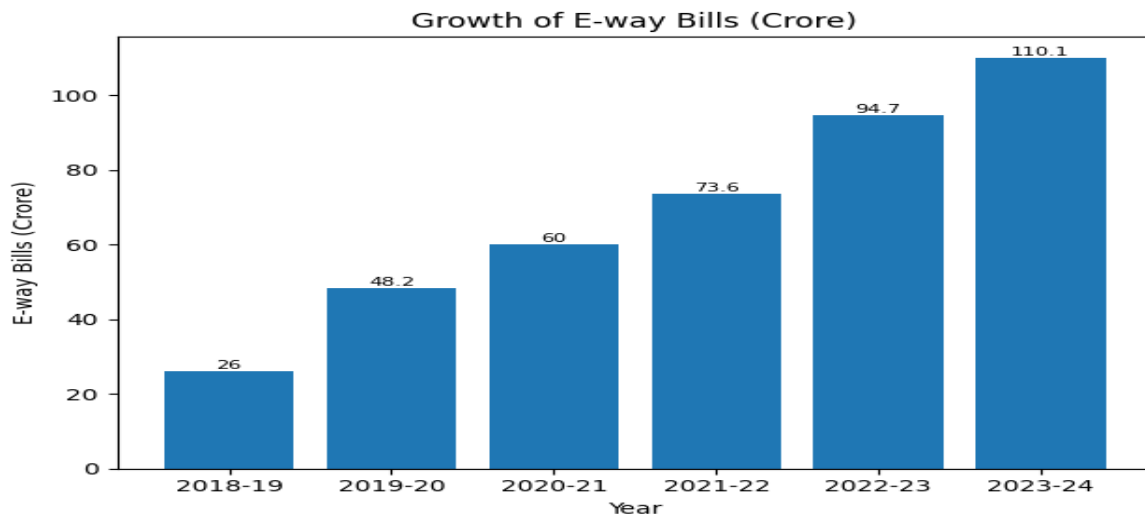
The e-way bill system has become a crucial digital advancement under GST. The system, implemented to oversee inter- and intra-state goods transportation, has shown significant rise in utilisation.

**Table B1** illustrates the annual growth of e-way bill generation, reflecting increased formalisation of goods movement and enhanced digital compliance.

Financial Year	E-way Bills Generated (crore)
2018-19	26
2019-20	48.2
2020-21	60.0
2021-22	73.6
2022-23	94.7
2023-24	110.1

The strong upward trend indicates effective adoption of digital monitoring tools, which correlates positively with GST revenue growth.

**Figure 2: Growth of E-way Bills in India (Crore)**



The annual creation of e-way bills rose from roughly 60 crore in 2020–21 to over 110 crore in 2023–24, indicating a robust Compound Annual Growth Rate (CAGR). Correlation study reveals a robust positive association between e-way bill volume and

GST revenue, underscoring the efficacy of digital oversight in mitigating evasion and enhancing compliance.

### **Electronic Invoicing and Analytics-Driven Governance**

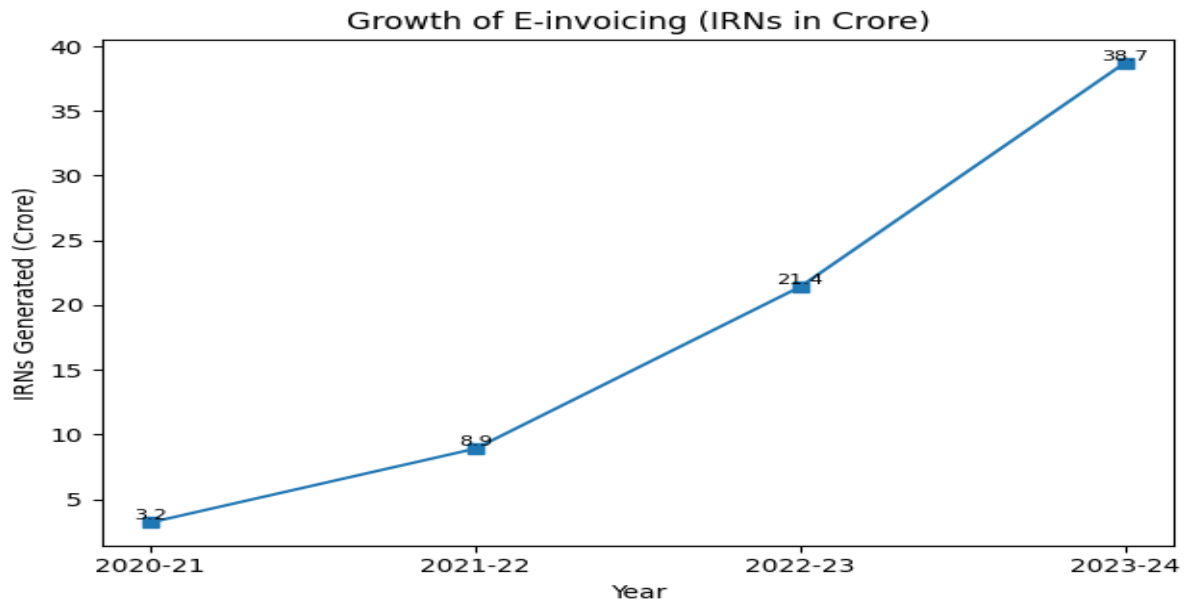
E-invoicing signifies the subsequent phase of GST digitalisation. E-invoicing improves transparency and fortifies invoice matching by facilitating real-time reporting of invoices. The swift escalation in the generation of Invoice Reference Numbers (IRNs), especially among substantial taxpayers, signifies an increasing acceptance rate.

**Table C1** presents the growth in e-invoicing adoption among registered taxpayers, highlighting the expanding scope of invoice-level transparency.

<b>Financial Year</b>	<b>E-way Bills Generated (crore)</b>
2020-21	3.2
2021-22	8.9
2022-23	21.4
2023-24	38.7

E-invoicing strengthens analytics-led governance and supports the digital public infrastructure framework envisioned under Viksit Bharat 2047.

**Figure 3: Growth of E-invoicing (IRNs Generated in Crore)**



E-invoicing data facilitates sophisticated analytics, risk assessment, and focused enforcement, connecting GST administration with the digital public infrastructure strategy supporting Viksit Bharat 2047.

### **GST and Viksit Bharat 2047: Conceptual Synthesis**

The Goods and Services Tax (GST) advances the goal of Viksit Bharat 2047 through four primary avenues: sustainable revenue generation, encouragement of economic formalisation, digital governance, and cooperative federalism. A clear and consistent GST framework bolsters investor confidence, facilitates corporate operations, and underpins evidence-driven legislation.

High-frequency GST indicators, including revenue collections, e-way bills, and e-invoices, can function as real-time metrics of economic activity, facilitating macroeconomic management.

### **Findings**

The empirical analysis yields the subsequent findings:

- GST income in India has exhibited consistent growth and robustness.
- Compliance rates have stabilised at elevated levels.
- Digital instruments, such e-way bills and e-invoicing, have proliferated swiftly.
- The growth of GST is fundamentally structural and driven by technology.

- GST is intricately connected to India's long-term developmental vision.

### **Implications for Policy**

Policy priorities must encompass the ongoing simplification of compliance protocols, the enhancement of analytics-driven enforcement, the incorporation of GST data into economic planning, and the incremental integration of smaller taxpayers into sophisticated digital systems. Enhancing the digital environment of GST will augment its contribution to Viksit Bharat 2047.

### **Conclusion**

The study concludes that GST has developed into a strong, technology-driven tax system that promotes fiscal sustainability, transparency, and inclusive growth. As India progresses towards Viksit Bharat 2047, the significance of GST as a fundamental element of public finance and digital governance will remain pivotal. Subsequent studies may utilise econometric methodologies to more precisely measure the effects of GST on growth and formalisation.

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