



ANALYSING THE IMPACT OF GST ON GOVERNMENT REVENUE COLLECTION OF INDIA

Dr. Parveen Kumar¹, Mr. Rohit Sinha², Mr. Sunil Bhatia³

¹Assistant Professor, Department of Commerce, IIMT College of Management, Greater Noida

²Assistant Professor, Department of Commerce, IIMT College of Management, Greater Noida

³Assistant Professor, Department of Commerce, IIMT College of Management, Greater Noida

ABSTRACT

This study examines the contribution of the Goods and Services Tax (GST) to India's overall tax revenue by comparing government collections in the pre- and post-GST periods. Using a descriptive and analytical research design, the study relies entirely on secondary data sourced from government budget documents, GST Council and CBIC reports, Ministry of Finance and RBI publications, and relevant scholarly work. Tools such as MS Excel were used to conduct trend analysis, comparative analysis, and percentage calculations to assess revenue patterns and identify changes following the introduction of GST. The findings reveal a substantial rise in total indirect tax revenue after GST implementation, with collections increasing from ₹7.40 lakh crore in 2017–18 to over ₹22 lakh crore in 2024–25. Major GST components – including CGST, SGST, IGST, and Cess – showed significant growth, reflecting an expanded tax base, improved compliance, and more efficient administration. Statistical evidence from the t-test confirms that the increase in revenue is highly significant and not due to random variation. Overall, the study concludes that GST has strengthened India's tax system and enhanced revenue performance while highlighting areas for further policy improvement.

KEYWORDS: GST, CGST & SGST/UTGST, Input Tax Credit, Revenue

INTRODUCTION

The Goods and Services Tax (GST) in India is a comprehensive, destination-based indirect tax that is levied on the supply of goods and services. Introduced on 1 July 2017, GST replaced multiple central and state-level indirect taxes such as VAT, excise duty, service tax, and entry tax, bringing them under one unified tax system. It follows the principle of “one nation, one tax”, simplifying the tax structure and reducing the cascading effect of taxes (tax on tax). GST is collected at each stage of the supply chain—manufacturing, sale, and consumption—but the final tax burden falls on the end consumer. It is multi-stage, value-added, and credit-based, meaning businesses can claim Input Tax Credit (ITC) for the taxes they have already paid, ensuring transparency and efficiency in tax administration.

The implementation of the Goods and Services Tax (GST) in India marked one of the most significant tax reforms in the country's fiscal history. GST replaced a complex web of indirect taxes with a unified taxation system aimed at simplifying compliance, reducing cascading effects, and improving tax transparency. As a destination-based tax, GST was expected to broaden the tax base, enhance efficiency in revenue collection, and strengthen the financial capacity of both the central and state governments. Since its introduction, GST has become a major component of India's indirect tax structure, contributing substantially to government revenue.

Understanding the impact of GST on revenue collection is crucial for assessing its effectiveness as a fiscal reform. Revenue trends not only reflect the success of the tax system but also influence government decisions related to budgeting, public expenditure, and economic planning. While GST was designed to increase revenue stability and reduce tax evasion,

its actual impact has varied across states and sectors, influenced by compliance levels, administrative changes, and economic conditions. This study seeks to analyze how GST has contributed to government revenue over time and to identify areas where policy improvements can further enhance revenue performance.

LITERATURE REVIEW

Abhilasha, A. C. (2023), The paper examines GST revenue trends for FY 2022–23 using secondary data from government and official sources. Through descriptive analysis, it evaluates annual, quarterly, and monthly GST collections and the contribution of different business entities. The study finds consistent growth in GST revenue, with public limited companies contributing the most. It concludes that GST has strengthened India's tax system and enhanced overall revenue performance.

Mukherjee, S. (2022), The paper evaluates the revenue impact of GST using secondary data and comparative analysis of pre- and post-GST tax collections. The study finds that GST has not yet boosted Union government revenues, while states show mixed performance with higher dependence on compensation in some cases. Overall, GST's expected revenue gains have not fully materialised in the initial years.

Dash, S. K., & Kakarlapudi, K. K. (2021), The paper analyses Kerala's GST revenue performance compared to other Indian states using panel data and regression methods. It identifies key determinants such as compliance levels, urbanisation, service-sector share, and governance quality. The study finds Kerala's GST revenue growth to be relatively low and shows that structural and institutional factors strongly influence revenue



outcomes. Overall, it concludes that improving compliance and reducing informalisation can enhance GST revenue performance.

Sharma, N. S., & Dayama, V. (2020), The study aims to understand the evolution, features, and functioning of the GST system while comparing GST revenue collections across different years. Using an exploratory research design, the paper relies entirely on secondary data from government websites, reports, and published articles to analyze yearly, monthly, and quarterly GST revenue trends. The findings show a consistent rise in GST collections, with 2019 performing better than 2017 and 2018 across most indicators. Overall, the study concludes that GST has strengthened India's indirect tax system and improved revenue generation, though more analytical work is needed as GST continues to evolve.

Maruthi, M. V. (2020), The paper examines the evolution, features, and impact of GST in India, aiming to explain how it differs from the earlier indirect tax system and what advantages and challenges it brings. Using an exploratory research method based on secondary data from government reports, journals, and online sources, the study analyzes GST's structure and its effects on various sectors. The paper concludes that GST is a major reform that unifies the tax system, increases transparency, and is expected to boost economic growth, though some implementation challenges—such as rate complexity and technological issues—still need to be addressed for its long-term success.

Garg, N. (2019), The paper aims to explain GST and assess its impact on different sectors of the Indian economy using a descriptive method based on secondary data. The findings show that GST brought major tax reforms by simplifying the indirect tax system and reducing cascading effects, positively impacting sectors like pharmaceuticals, automobiles, logistics, FMCG, and real estate, while sectors such as textiles, agriculture, and banking experienced some challenges in the transition. Overall, the study concludes that despite mixed short-term effects, GST is expected to strengthen tax administration, improve ease of doing business, and support long-term economic growth.

Paliwal, U. L. & Saxena, N. K. et al. (2019), The study examines how GST has affected India's tax revenue by analysing changes in tax buoyancy. Using a semi-logarithmic ANCOVA regression model with GDP as the key explanatory variable, the authors find that tax revenue has become less responsive to economic growth after GST. This indicates a reduced tax burden on consumers and businesses. The study concludes that while GST simplifies taxation, it also poses challenges for long-term revenue mobilisation.

OBJECTIVE OF THE STUDY

- To analyze the contribution of GST to the overall tax revenue of the central and state governments.

- To analyse the government revenue to Pre-and Post GST Collection
- To provide policy suggestions for enhancing revenue performance under the GST framework.

HYPOTHESIS OF THE STUDY

- **Null Hypothesis (H₀):** There is no significant difference in average tax revenue before and after GST.
- **Alternative Hypothesis (H₁):** There is a significant difference in average tax revenue after GST.

RESEARCH METHODOLOGY

This study uses a descriptive and analytical research design based on secondary data to analyze the contribution of GST to central and state government revenue and to suggest policies for improving revenue performance. Data will be collected from government budget documents, GST Council and CBIC reports, Ministry of Finance and RBI publications, and relevant research papers. The analysis will include trend analysis, comparative analysis, and percentage calculations to understand revenue patterns before and after GST. Policy gaps will also be examined to propose improvements. Tools like MS Excel will be used for data analysis. The study is limited to secondary data availability but ensures ethical use of reliable and publicly accessible sources.

Tax System in India Before GST Introduction

India had multiple indirect taxes imposed separately by Central Government and State Governments. These taxes were applicable on production, sale, or provision of services, and the burden was ultimately passed on to the final consumer. Indirect tax is a tax levied on goods and services, where the tax burden can be shifted from the seller to the final consumer through prices. The person who pays the tax to the government is not necessarily the one who ultimately bears it. In simple words Indirect tax is collected by the government from manufacturers or sellers, but it is paid by consumers while purchasing goods or services.

India's indirect tax structure was divided between the Central Government and State Governments, each imposing their own taxes on goods and services. At the central level, the major taxes included Central Excise Duty, which was charged on the manufacturing of goods within the country, and Service Tax, levied on various services provided by service providers. Additionally, the Centre collected Central Sales Tax (CST) on inter-state sales of goods, and Additional Duties of Excise and Customs Duty on goods imported from other countries. On the other hand, State Governments imposed taxes such as Value Added Tax (VAT) on the sale of goods within the state, Entry Tax or Octroi on the entry of goods into a local area, and Purchase Tax on the purchase of specific commodities. States also independently collected taxes like Entertainment Tax, Luxury Tax, and Betting Tax, leading to a highly fragmented and complex tax system with multiple layers of taxation.

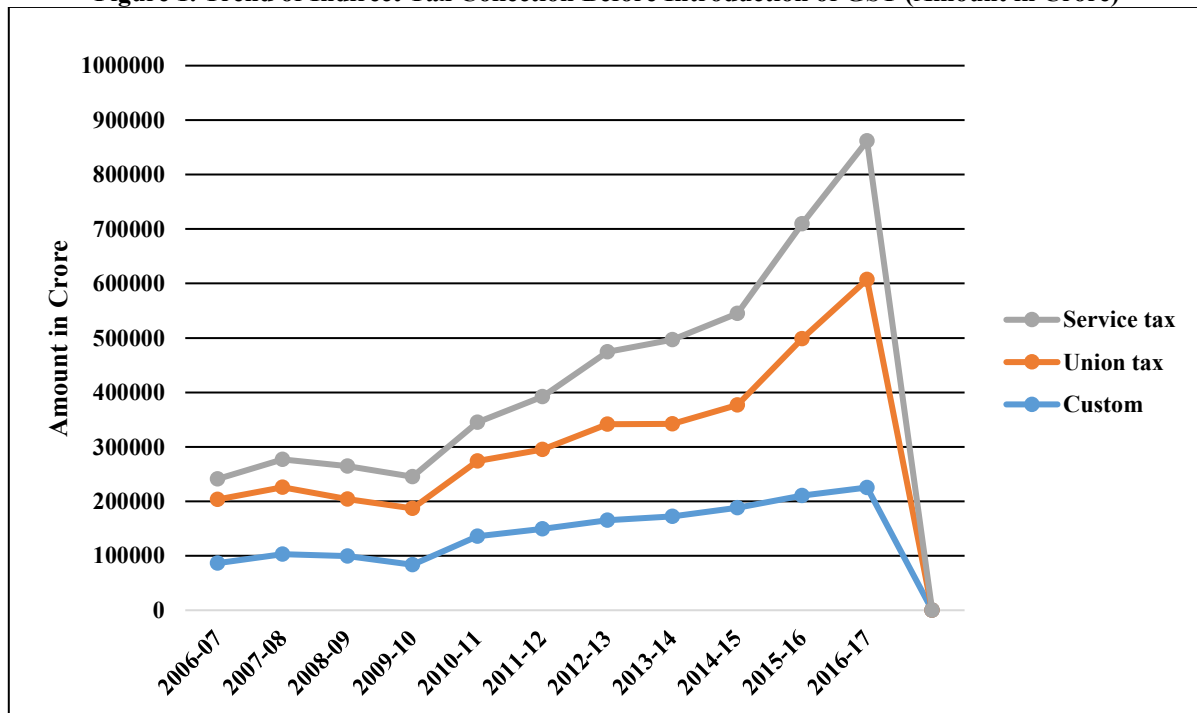


Table 1. Indirect Tax Collection Before Introduction of GST (Amount in Crore)

YEAR	CUSTOM	UNION TAX	SERVICE TAX	TOTAL
2009-10	83324	103621	58422	245367
2010-11	135813	138299	71016	345127
2011-12	149328	145607	97509	392444
2012-13	165346	176535	132601	474482
2013-14	172085	170197	154778	497060
2014-15	188016	188787	167996	544772
2015-16	210338	288073	211414	709825
2016-17	225370	381756	254499	861625

Source: GST Report

Figure 1. Trend of Indirect Tax Collection Before Introduction of GST (Amount in Crore)



Source: Author Composition

The figure 1 shows how India's major indirect taxes—Customs Duty, Union Excise Duty, and Service Tax—grew steadily from 2006–07 to 2016–17, before the introduction of GST. During this period, total indirect tax revenue increased from ₹2,40,876 crore to ₹8,61,625 crore, indicating a significant expansion in economic activity and tax collection capacity. Customs duty collections generally increased over the years, rising from ₹86,304 crore to ₹2,25,370 crore, with a small dip during the 2009–10 global recession. Union excise duty showed even stronger growth, especially after 2014–15, increasing from ₹1,17,088 crore to ₹3,81,756 crore, mainly due to higher excise rates on petroleum products and increased domestic manufacturing. Service tax displayed the fastest growth among the three, rising sharply from ₹37,484 crore in 2006–07 to ₹2,54,499 crore in 2016–17, reflecting the rapid expansion of India's service sector and broader tax coverage after reforms like the Negative List in 2012. Overall, the data indicates that

although the pre-GST indirect tax system was fragmented, India's indirect tax revenue was consistently rising, showing strong economic activity and an expanding tax base leading up to GST implementation.

Tax System in India After GST Introduction

After the implementation of GST, India's indirect tax system became more simplified and unified. GST replaced multiple central and state indirect taxes with a single tax structure, reducing the cascading effect of taxes and creating a common national market. Under this system, GST is levied as CGST and SGST on intra-state supplies and IGST on inter-state supplies. The post-GST tax system has improved transparency, enhanced tax compliance through input tax credit, and strengthened revenue collection, though challenges such as compliance burden and multiple tax rates still remain.

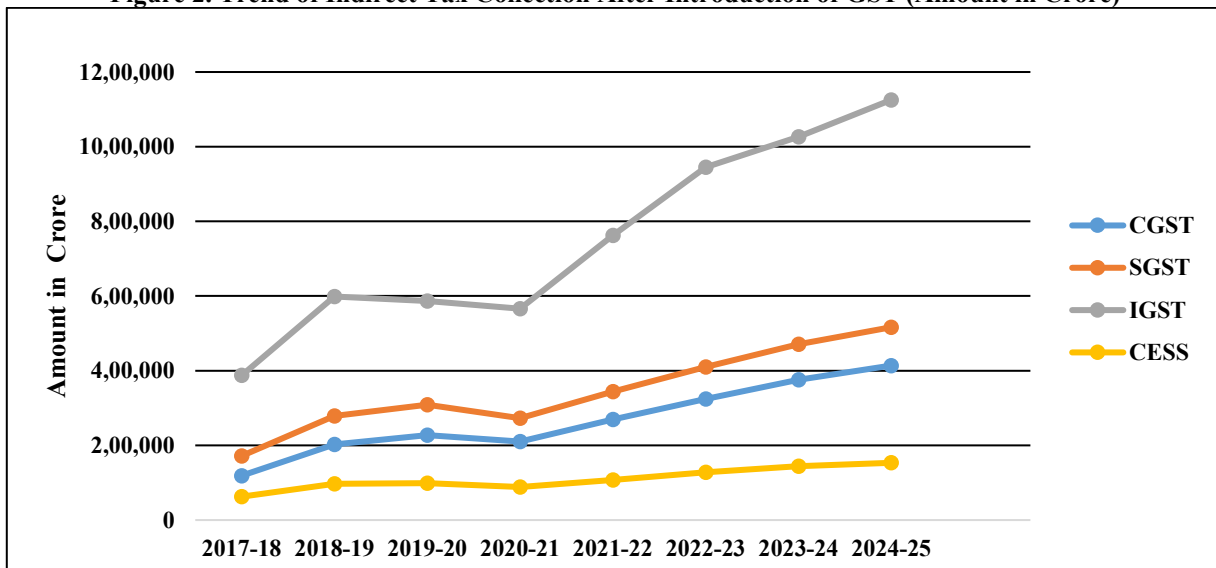


Table 2. Indirect Tax Collection After Introduction of GST (Amount in Crore)

Year	CGST	SGST	IGST	CESS	TOTAL
2017-18	1,18,857	1,71,782	3,87,354	62,614	7,40,607
2018-19	2,02,434	2,78,806	5,98,737	97,369	11,77,345
2019-20	2,27,443	3,09,232	5,86,699	98,749	12,22,122
2020-21	2,09,916	2,72,828	5,65,719	88,342	11,36,805
2021-22	2,69,137	3,44,216	7,62,270	1,07,667	14,83,291
2022-23	3,23,923	4,10,251	9,45,220	1,28,286	18,07,680
2023-24	3,75,710	4,71,195	10,26,790	1,44,554	20,18,249
2024-25	4,13,776	5,16,448	11,25,335	1,53,303	22,08,861

Source: GST Report

Figure 2. Trend of Indirect Tax Collection After Introduction of GST (Amount in Crore)



Source: Author Composition

The figure 2 on GST revenue collection from 2017–18 to 2024–25 shows a clear and consistent upward trend in India’s tax revenues after the introduction of the Goods and Services Tax. Total GST collections increased from ₹7,40,607 crore in 2017–18 to ₹22,08,861 crore in 2024–25, indicating that GST has steadily strengthened as a major source of government revenue. Collections under CGST, SGST, IGST, and Cess have all grown over the years, reflecting rising economic activity, improved compliance, and the widening tax base.

CGST collections rose from ₹1,18,857 crore in 2017–18 to ₹4,13,776 crore in 2024–25, while SGST collections increased significantly from ₹1,71,782 crore to ₹5,16,448 crore, showing stronger revenue performance for states. IGST, which forms a major component of GST, expanded from ₹3,87,354 crore to ₹11,25,335 crore, indicating higher inter-state trade and improved settlement efficiency. Similarly, GST Compensation Cess rose from ₹62,614 crore to ₹1,53,303 crore, reflecting increased consumption of goods such as luxury and sin products.

Statistic Summary

Statistic	Before GST	After GST
Mean	5,08,837.75	14,74,370.00
SD	1,99,008.46	5,00,095.38
t-value	-5.0738	—
df	9.16	—
p-value	< 0.001	—

Calculated p-value ≈ 0.00052, The decision rule for a t-test states that if the p-value is less than the significance level (0.05), we must reject the null hypothesis (H₀), which assumes that there is no difference between the two groups being compared. In this analysis, the calculated p-value is extremely small—much lower than 0.05—indicating very strong statistical evidence against the null hypothesis. Therefore, based on the decision rule, we reject the null hypothesis and conclude that

there is a significant difference between tax revenues before and after the implementation of GST.

Policy Suggestions for Enhancing Revenue Performance under the GST Framework

- **Strengthen GST Compliance Monitoring:** Introduce advanced data-matching tools and automated alerts to detect non-filing, under-reporting, and fake invoicing, which will increase accurate tax collection.



- **Expand the GST Tax Base:** Bring more informal and small-scale businesses into the GST system through simplified registration, incentives for voluntary compliance, and awareness campaigns.
- **Rationalize GST Rate Structure:** Reducing the number of GST slabs and simplifying tax rates can lower confusion, improve compliance, and gradually increase revenue.
- **Improve IT Infrastructure of GSTN:** Strengthen the GST portal, reduce downtime, improve return-filing experience, and integrate real-time analytics to enhance revenue tracking.
- **Enhance Capacity Building for Tax Officers:** Regular training on fraud detection, auditing techniques, and technological tools will help officers improve enforcement effectiveness.
- **Promote Digital Payments & E-invoicing:** Expand e-invoicing coverage, make digital payments more attractive, and ensure invoice traceability, reducing tax leakages.
- **Reduce Litigation and Speed Up Dispute Resolution:** Faster resolution of GST disputes will improve tax certainty and ensure timely revenue flow to the government.
- **Encourage Inter-State Coordination:** Improved coordination between central and state GST authorities will help track movement of goods and prevent revenue loss in IGST settlements.
- **Strengthen Anti-Evasion Measures:** Implement real-time invoice tracking, movement tracking systems, and stricter penalties for offenders to curb revenue leakages.
- **Frequent Review of Exemptions:** Periodically review GST exemptions and remove outdated or unnecessary exemptions to broaden the revenue base.

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CONCLUSION

Based on the comparison of indirect tax collections before and after the implementation of GST, it is clear that India's tax revenue system experienced a significant transformation. Before GST, indirect taxes such as Customs Duty, Union Excise Duty, and Service Tax showed steady growth, reflecting rising economic activity and an expanding tax base. After the introduction of GST, however, total tax revenue increased much more rapidly, with collections rising from ₹7.40 lakh crore in 2017–18 to over ₹22 lakh crore in 2024–25. All major GST components—CGST, SGST, IGST, and Cess—recorded substantial increases, indicating improved compliance, a broader tax base, and more efficient tax administration. The statistical t-test further confirms that the increase in revenue is not due to chance; the extremely small p-value provides strong evidence to reject the null hypothesis. Therefore, the data clearly shows that GST has significantly enhanced tax revenue generation in India, marking a major improvement over the pre-GST indirect tax regime.

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