A COMPREHENSIVE STUDY OF GOODS AND SERVICES TAX (GST) REVENUE TRENDS IN INDIA

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ABSTRACT

The study investigates India's Goods and Services Tax (GST) revenue collection from 2018-19 to 2024-25, using secondary data from government sources. Through a quantitative research, secondary data, the study employs descriptive statistics, correlation analysis, and techniques to carry out the study The Goods and Services Tax (GST) in India is a significant tax reform aimed at simplifying the indirect tax structure and enhancing economic efficiency. As the GST system matures, it is crucial to analyze its contribution and collection trends for FY 2024-25. This analysis provides insights into the effectiveness of GST implementation, its impact on revenue generation, and the overall development of the Indian economy.

Key Words: SGST, CGST, IGST, policymakers, Goods and Services Tax, GST revenue collection, fiscal year, economic growth, India.

I. INTRODUCTION

The Goods and Services Tax (GST) is a single tax system that combines indirect taxes like SVAT, service tax, and excise duty, simplifying the tax structure, reducing compliance burdens, improving transparency, fostering economic efficiency, reducing transaction costs, and promoting economic development and expansion . GST is a global consumption tax aimed at streamlining the tax system by consolidating indirect taxes like sales tax and excise duties It aims to create a unified domestic market by removing barriers between states and encouraging economic efficiency. GST allows businesses to claim tax credits paid on inputs, reducing potential accumulation. The GST distributes the tax burden fairly among supply chain participants but requires significant modifications for tax administration, compliance, and reporting. It simplifies tax structures, increases business entry, reduces tax evasion, and enhances business efficiency. It also fosters a competitive market by reducing transaction costs and barriers between states. Effective collaboration between businesses, tax authorities, consumers, and governments is crucial for successful implementation. Policymakers must continuously evaluate and refine the GST framework based on economic conditions and stakeholder feedback

GST consists of three components: Central Goods and Services Tax (CGST), State Goods and Services Tax (SGST) or Union Territory Goods and Services Tax (UTGST), and Integrated Goods and Services Tax (IGST). CGST is imposed by the federal government on items and services supplied within states, replacing levies like service tax and central excise duty. SGST is imposed by state governments on intrastate supplies of goods and services, replacing state-imposed taxes like VAT, Sales Tax, and Entertainment Tax. UTGST is modelled after SGST and applies to imports, exports, and interstate sales, facilitating a uniform indirect tax structure throughout India (Lourdunathan, F., & Xavier, P. 2017).

GST has significant economic implications, promoting economic integration, a single national market, increased government revenue, broadening the tax base, improving compliance, lowering business transaction costs, promoting economic formalization, and enhancing overall growth and efficiency (Sharma, Y., & Arora, B. 2024). Implementing GST signifies a landmark reform in India's taxation system, aligning with global best practices.

The Goods and Services Tax (GST) aims to simplify the indirect tax structure by consolidating central and state taxes into a single tax (Bansal, R., Shrivastava, P., & Kumar, A. 2024). It aims to create a unified national market by reducing trade barriers, eliminating tax on tax cascades, expanding the tax base, encouraging economic efficiency, and promoting transparency through technology like GSTN. The GST also standardizes indirect taxes nationwide, reducing compliance burdens and promoting economic formalization. This approach aims to improve efficiency, reduce costs, and increase government revenue.

II. LITERATURE REVIEW

R. Rupa. (2017). explores the benefits, drawbacks, and global context of the Goods and Services Tax (GST), highlighting its potential to simplify tax collection in India, improve compliance, and streamline revenue collection.

Navneet Kaur (2018) provides a detailed analysis of the government's monthly tax revenues since the implementation of the GST in India, highlighting the challenges individuals face and the impact on the tax system. They acknowledge the limitations of the GST rollout, including confusion and chaos among the general public.

Natika Poddar, Reema Mishra. (2018) provides an overview of the Goods and Services Tax (GST), a significant tax reform in India aimed at simplifying taxation and boosting the economy. It compares tax rates between VAT and GST, finding that GST has led to cheaper and more expensive consumption of certain products and services compared to VAT. However, political issues and conflicting stakeholder interests delayed its implementation from 2010 to 2017.

Udai Lal Paliwal, Nitin Kishore Saxena, Ashutosh Pandey. (2019). examines the impact of GST on India's tax income using a semi-logarithmic ANCOVA regression model, revealing that post-GST implementation, India's tax income has decreased GDP responsiveness, resulting in a lower tax burden on consumers and corporations, aligning with GST objectives.

Sacchidananda Mukherjee. (2020). assesses states' GST revenue and compliance, calculates compliance gaps, and identifies obstacles to Indian GST. State-level analysis is crucial to understand and address budgetary targets and compliance gaps. Mukherjee, S. (2023) assesses the revenue performance of GST in India from 2012-13 to 2022-23, focusing on the sustainability of revenue streams for the Union and State governments. Post-GST tax buoyancy has improved for all governments, but the GST-to-GDP ratio has not improved. The average collection efficiency is 0.54, and the average Effective Tax Rate (ETR) has increased from 10.91% in 2020-21 to 12.21% in 2021-22 and 12.56% in 2022-23.

Abhilasha A C (2024) examines GST collection in FY 2022-23, evaluating business contributions and GST components. The Indian government's GST implementation aimed to simplify the tax system, curb black money, and bring livery taxation to the economy.

III. RESEARCH METHODOLOGY

The study's includes a detailed analysis of India's Goods and Services Tax (GST) revenue collection from the 2018–19 fiscal year to the 2024–25 financial year. This includes looking for trends, patterns, and implications for fiscal policy and economic growth in the data on CGST, SGST, IGST, and Compensation Cess. The study looks at sectoral contributions, regional differences in revenue collection, and the overall importance of GST revenue in India's budgetary system. It also provides insights for economists, businesses, and policymakers looking to improve fiscal management and boost economic growth.

Research objectives

1. To assess the Goods and Services Tax (GST) revenue generated during the fiscal year 2023-24 from various perspectives.
2. To analyse the GST revenue collected in FY 2024-25compared to previous financial years to identify trends and patterns.
3. To investigate whether there are significant differences in the mean amounts of Central Goods and Services Tax (CGST), State Goods and Services Tax (SGST), Integrated Goods and Services Tax (IGST), and Compensation cess across multiple financial years (hypothesis tested in an ANOVA (Analysis of Variance)).

Problem statement

The Goods and Services Tax (GST) in India is effective, but its efficiency and obstacles are not fully understood. The fiscal year 2024-2025 presents an opportunity to examine GST revenue, trends, and sectoral contributions, providing valuable insights for policymakers and stakeholders.

Research design

This study uses a quantitative research approach to analyse GST revenue collection and its contribution in FY 2024-25. Data is collected from secondary sources, including GST Council records and relevant literature. Descriptive analysis summarizes tax data, inferential statistical analysis using ANOVA detects significant differences, and post-hoc tests identify specific differences between pairs. This methodological framework allows a systematic examination of GST revenue dynamics and their underlying determinants.

Limitations of the study

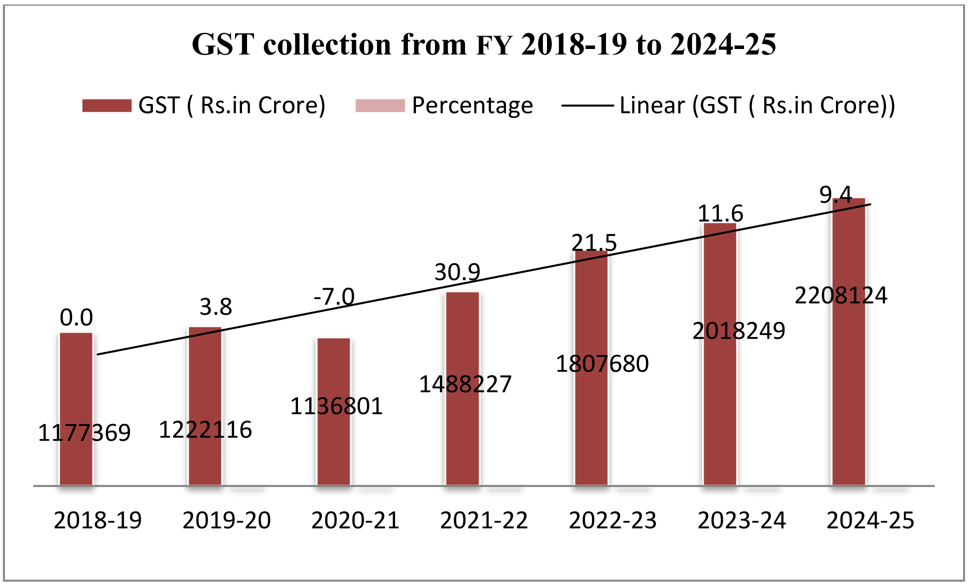
The study on GST revenue collection in 2024-25 has limitations, including reliance on data availability, scope limitations, and assumptions of causality. It may not capture long-term trends or account for external factors. The study may also not fully analyze certain aspects due to resource constraints or data limitations. Acknowledging these limitations can provide a more nuanced interpretation and identify areas for improvement.

IV. DATA ANALYSIS AND INTERPRETATION

Table 1: GST collection from FY 2018-19 to 2024-25

Financial Year	GST (Rs.in Crore)
2018-19	1177369
2019-20	1222116
2020-21	1136801
2021-22	1488227
2022-23	1807680
2023-24	2018249
2024-25	2208124

Source: Secondary data collected from GST.gov.in



Source: Excel output on secondary data collected from GST.gov.in

From 2018-19 revenue increased by 4% revenue increased , indicating improved compliance with GST regulations. From 2019-20 to 2020-21, revenue declined slightly due to economic conditions and the COVID-19 pandemic. From 2021-22 to 2022-23, revenue continued to grow at an 18% rate.

Table 2: GST collection from FY 2018-19 to 2023-24

GST	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24
CGST	2,02,444	2,27,442	2,09,916	2,70,701	3,23,923	3,75,710
SGST	2,78,817	3,09,231	2,72,827	3,46,186	4,10,251	4,71,195
IGST*	5,98,739	5,86,698	5,65,720	7,63,632	9,45,220	10,26,790
Domestic	3,08,244	3,19,422	3,03,947	3,86,676	4,73,421	5,43,704
Imports	2,90,496	2,67,277	2,61,773	3,76,956	4,71,799	4,83,086
Comp cess*	97,369	98,745	88,338	1,07,708	1,28,286	1,44,554
Domestic	87,289	88,304	79,153	98,918	1,17,390	1,32,639
Imports	10,079	10,443	9,185	8,790	10,896	11,915
Total	11,77,369	12,22,119	11,36,801	14,88,227	18,07,680	20,18,249

Source: Excel output on secondary data collected from GST.gov.in
*Note -IGST/ Cess includes payments on both domestic supplies and imports

The data shows consistent growth in GST collections, indicating overall tax revenue growth from intra-state and inter-state transactions. IGST collections, especially from imports, show significant growth, indicating cross-border trade activities. Domestic transactions contribute higher revenue than imports. GST revenue collection shows positive growth, indicating improved tax compliance and economic activity.

Table 3: monthly GST collection for FY 2022-23 to FY 2024-25

Month	FY 2022-23(Rupees in crore)	FY 2023-24 Rupees in crore)	Absolute increase or decrease in revenue	FY 2023-24 Rupees in crore)	Absolute increase or decrease in revenue
April	167540	187035	10.42%	210267	12.42%
May	140885	157090	10.32%	172139	9.58%
June	144616	161497	10.45%	165793	2.66%
July	148995	165105	9.76%	174962	5.97%
August	143612	159069	9.72%	173240	8.91%
September	1,47,686	1,62,712	9.23%	187346	15.14%
October	1,51,718	1,72,003	11.79%	182269	5.97%
November	1,45,867	1,67,929	13.14%	176857	5.32%
December	1,49,507	1,64,882	9.32%	178462	8.24%
January	1,57,554	1,72,129	8.47%	195506	13.58%
February	1,49,577	1,68,337	11.14%	183652	910%
March	1,60,122	1,78,484	10.29%	198360	11.14%

Source: Excel output on secondary data collected from GST.gov.in

The data shows a steady upward trend in GST collections from FY 2022-23 to FY 2023-24, with each month showing a significant increase in revenue. October and February saw the highest percentage increases, while November saw a 13.14% increase, indicating strong economic activity and a stable fiscal environment.

Table 5: average monthly gross GST collection

Financial year	GST (Rupees in crore)
2021-22	1,24,019
2022-23	1,50,640
2023-24	1,68,187
2024-25	1,86,025

Source: Excel output on secondary data collected from GST.gov.in

The data shows GST collections in crore rupees for 2021-22, 2022-23, and 2023-24, with an increase of 17.67% from 2021-22 to 2022-23 and 10.43% in 2023-24 and 10.61% in 2024-25. This growth reflects robust economic activity, improved compliance, and effective tax administration measures, underscoring the resilience of the tax system in India's fiscal landscape.

Table 7: Descriptive statistics of components of GST from FY2018-19 to FY24-25

GROUPS	CGST	SGST	IGST	Compensation cess
Mean	247001.71	322901.41	696307.71	103944.86
SD	32072.79	37042.95	85877.45	10092.25
Median	227442	309231	598739	98745
Sample Variance	7200647390.24	9605261762	51624550143	712974852.8
Kurtosis	-0.13	0.03	-0.95	0.15
Skewness	0.13	0.07	0.36	0.08
Range	256834	299391.89	639435	81940
Minimum	118876	171803	387355	62614
Maximum	375710	471194.89	1026790	144554
Sum	1729012	2260309.89	4874154	727614

Source: Excel output on secondary data collected from GST.gov.in

The data shows GST revenue collection across components like CGST, SGST, IGST, and Compensation Cess. IGST contributes the most to total revenue, followed by SGST and CGST. The compensation Cess has the lowest contribution. IGST has the highest variability, with a nearly normal distribution for most components. The data emphasizes the importance of managing variability and ensuring balanced contributions for long-term revenue generation.

Table 8: correlation matrix between components of GST

	CGST	SGST	IGST	Compensation cess
CGST	1			
SGST	0.998132674	1		
IGST	0.987165348	0.98301707	1	
Compensation cess	0.989884249	0.99502125	0.98217	1

Source: Excel output on secondary data collected from GST.gov.in

The correlation matrix reveals significant positive correlations between GST revenue collection components (CGST, SGST, IGST, and Compensation Cess), indicating a harmonious association between them. This understanding can help policymakers develop balanced revenue collection and fiscal management strategies.

Hypothesis testing

Null Hypothesis (H_0): There is no significant difference in the mean amounts of CGST, SGST, IGST, and Compensation cess across the financial years.

GROUPS	CGST	SGST	IGST	Compensation cess

CGST	7	1729022	247001.7143	7200647380
SGST	7	2260320	322901.4129	9605261767
IGST	7	4874164	696307.7143	51624550139
Compensation cess	7	727626	103944.8571	712974852.9

Source of Variation	SS	def.	MS	F	P-value	F critical
Between Groups	1.34115	3	4.47049	25.86212942	.012	3.00879
Within Groups	4.14861	24	1.72859			
Total	1.75601	27				

Source: Excel output on secondary data collected from GST.gov.in

This indicates strong evidence to reject the null hypothesis because the calculated F-statistic is much larger than the critical F-value and the p-value is significantly smaller than 0.05. Thus, we conclude that the mean tax amounts for at least one of the financial years differ significantly from one another.

V. FINDINGS

GST collections have consistently increased from FY 2021-22 to FY 2024-25, indicating economic growth and improved tax compliance. The highest collection months varied, with March 2023 being the second-highest collection ever. The growth momentum continued into FY 2023-24, with a 10.43% increase compared to the previous fiscal year. Component-wise analysis showed consistent revenue growth, with IGST collections experiencing substantial growth, particularly in FY 2022-23. The highest GST revenue collection was recorded in FY 2024-2025, indicating a positive trajectory. Regional disparities in GST revenue collection can inform targeted policy interventions. Analysing business segment contributions can reveal sector health and general economic trends. Monthly and quarterly trends can help businesses, economists, and policymakers make informed decisions for fiscal management and economic expansion.

The test revealed significant differences in the mean amounts of various taxes across financial years, indicating the importance of GST revenue for the economy. However, challenges like administrative complexity and compliance issues need to be addressed. Enhancing GST revenue mobilization and sustainable growth requires improving taxpayer education, automating data-driven decision-making, and optimizing compliance procedures. Cooperation between stakeholders and tax authorities is crucial for overcoming obstacles and promoting sustainable growth.

VI. RECOMMENDATIONS

Regular GST collection monitoring is crucial for identifying trends, assessing compliance, and making informed policy decisions. Prioritizing economic growth, enhancing compliance measures, implementing trade facilitation, maintaining policy stability, and promoting public awareness can contribute to sustainable revenue growth.

VII. CONCLUSION

The analysis of GST collections from 2021-22 to 2024-25 shows a steady upward trend in revenue generation, indicating positive economic growth and improved tax compliance measures. The robust performance across CGST, SGST, IGST, and Compensation Cess demonstrates the effectiveness of tax administration policies and the resilience of the Indian economy. The ANOVA test shows significant variations in the mean amounts of taxes (CGST, SGST, IGST, Compensation cess) across different financial years, indicating inconsistent tax amounts over time. Policymakers should prioritize measures to sustain economic growth, enhance compliance, and foster trade facilitation for continued revenue growth and fiscal stability.

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