

GST, Sectoral Transformation, and Fiscal Federalism in India

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Abstract

The introduction of the Goods and Services Tax (GST) has transformed the Indian indirect taxation and had major consequences on the performance of the sectors and federalism in fiscal policies. This paper discusses how GST influences the sectors in India and compares the Centre and State revenue allocation to evaluate its contribution to enhancing efficiency in the economy and collaborative fiscal management. The research utilises the secondary data that covers the period between 2017 and 2022 to assess the growth of post-GST in key sectors and how GST revenue is distributed between the Centre and the States. The findings indicate that logistics experienced a highest growth of 12.1 per cent, pharmaceuticals 10.4 per cent and FMCG 9.6 per cent after GST, with gains in its supply chain integration and lower tax cascading. Comparatively moderate growth of services at 7.8 per cent was observed, which is a rate complexity and compliance issues. The fiscal analysis indicates that the revenue sharing mechanism under GST is relatively balanced with the Centre contributing 52 per cent and the States contributing 48 per cent of the total GST revenue. Evidence at the state level indicates that there is a concentration of GST collections to a few economically developed States with Maharashtra leading with a share of 16.8 per cent. Its results imply an increase in sectoral restructuring and reinforcement of cooperative federalism, and point to the continuing regional and sectoral inequalities in the post GST Indian economic environment.

Keywords: *Goods and Services Tax, sectoral efficiency, fiscal federalism, supply chain integration, revenue distribution*

1. Introduction

The Goods and Services Tax (GST) is a significant structural and institutional change in the fiscal system of India, whose effects can be seen not only in the taxation sector but also in the performance of sectors, their governance and the federal fiscal relationships. In contrast to the incremental changes of taxes, GST essentially re-packaged the indirect tax system by incorporating various central and state taxes into a single destination based system. The literature is well aware that such large-scale institutional reforms can change the outcome of efficiency, coordination, and performance in sectors (Mohan, 2005; Srinivasan et al., 2024). GST is thus not just a revenue tool, but a systemic intervention, which impacts on the production structures, supply chains, as well as inter-governmental relations.

One of the fundamental goals of GST was to enhance the efficiency of the sector, which accrued due to the cascading of taxes and the reduction in transaction costs that were prevailing in the pre-GST regime. The previous indirect taxes added several levels of taxes throughout the production process, and across the inter-state movement, which disintegrated the supply chain and enhanced operational efficiencies. The research into service quality and organisational performance has always indicated that the simplification of the processes and system integration enhance efficiency and output performance (Ladhari, 2009; Vidani, 2024). Transferred to GST, seamless input tax credit and equal taxation were destined to improve productivity especially in industries that are typified by complex logistics and multi-stage value chains.

The Indian context particularly faces a problem of sectoral efficiency because of the heterogeneity of the economic setup. The manufacturing, logistics, pharmaceuticals, and fast-moving consumer goods industries are highly dependent on the inter-state flow of inputs and outputs, and therefore, indirect changes in taxes affect them. Sectoral performance and institutional change research has shown that those sectors that have more interaction with regulation face another cost of transitional adjustment and, in the long term, efficiency advantages after systemic reforms (Mishra et al., 2010; Ashraf and Venugopalan, 2018). GST, with equal treatment of the taxation system in different states, directly addressed these inefficiencies and sought to establish a national market.

Another change that was brought about by GST is that of fiscal federalism through destination-based taxation. This redistribution changed the revenue flows between states that produced and those that consumed resources as well as changed the fiscal relationship between the Centre and the States. According to federal finance literature, the re-assignment of revenue may affect the sub-national fiscal capacity, expenditure priorities, and regional equity (Mohan, 2005; Srinivasan et al., 2024). Revenue sharing between the Centre and States in GST is entrenched in a dual tax structure, so central in the reform is federal revenue distribution.

The significance of Centre-State revenue sharing analysis is its connotations on the stability of fiscal and cooperative governance. States in India have significant functions in the provision of services to public and stable streams of revenue are necessary in ensuring fiscal sustainability. The institutional and governance literature highlight that balanced revenue-sharing systems enhance the trust and collaboration in federal systems (Bhagat et al., 2025). The revenue-sharing system of GST can thus offer a handy framework to study the impact of massive fiscal reforms on the inter-governmental relations.



Figure 1.1: Conceptual Framework

This research paper is confined to determination of sectoral effect of GST in India and to an analysis of Centrals States revenue distribution under GST regime (Figure 1.1). The paper is interested in the growth performance of the sector after GST, and the extent to which GST has brought about efficiency in the major sectors. It also examines how GST revenue is distributed between the Centre and the States and how the major states concentrate the revenue. The study seeks to evaluate GST as an institution-building and efficiency-enhancing reform, by means of incorporating sectoral and federal views. The study purpose is threefold, it aims at analysing the effects that GST has had on the sectoral performance in India, analysing the distribution of centre states revenue under GST, and lastly discussing the implications of GST on cooperative fiscal federalism. In such a way, the research adds to the body of literature on indirect tax reforms, efficiency in the sector, and Federal government.

2. Review of Literature

The literature on indirect tax reforms has always focused on the fact that it leads to efficiency by eliminating production and distribution distortions. Consumption taxes like VAT and GST are considered to be efficient in that, they tax the value addition as opposed to turnover, hence cascading effects are reduced. Research concerning institutional and sectoral reforms indicates that simplicity, administrative capacity as well as compliance behaviour are all important in determining the effectiveness of such systems (Mohan, 2005; Ladhari, 2009).

There is a considerable amount of literature that studies supply chain efficiency and service quality within regulated settings. It is proven that process integration, reliability, and standardisation are the key indicators of efficiency and performance according to the research conducted with the help of SERVQUAL and similar models (Lai et al., 2007; Liu et al., 2015; Shi and Shang, 2020). The implications of these findings on GST are straightforward; it tried to harmonise the indirect taxation between states and industries. GST would facilitate the free flow of credit, thus minimizing logistic delays, inventory expenses, especially in manufacturing and distribution-intensive industries.

The results of sectoral impact studies also show that institutional reforms tend to have unequal effects on industries. The results of research in banking and service industries indicate that the performance outcomes of sectors with more compliance and regulatory engagement are differentiated after the policy change (Mishra et al., 2010; Shetty et al., 2022). This can be applied to GST, indicating that those sectors that are better digitally prepared, are better organised to achieve efficiency gain faster, and others may have to bear adjustment costs.

The information provided in literature also underscores the importance of digitalisation in increasing performance and governance. The research on the ICT-based reforms and customer-centred systems suggests that digital platforms enhance coordination, transparency, and accountability (Singh et al., 2024; Bhagat et al., 2025). These findings are consistent with those of GST which has provided a digital compliance architecture to support the argument that technology-enabled governance can help enhance performance of an institution.

The revenue distribution implications of GST can be explained by using fiscal federalism literature. The destination-based taxation changes the location of the revenue distribution, and it has a bearing on the equity in regions and the sub-national fiscal ability. Federal reforms research highlights that revenue-sharing systems affect the motivation of states, as well as affect long-term fiscal sustainability (Mohan, 2005; Srinivasan et al., 2024). The dual design and revenue sharing system of GST is indicative of a compromise between national integration and state autonomy.

One more significant theme in literature is concentration of economic activity and revenue. Research in the area of development and institutional capacity indicates that fiscal reform can strengthen regional concentration unless it is

combined with compensatory mechanisms (Ogwu, 2025). Increased sectoral growth and collection of revenue has been observed to be greater in places with superior infrastructure and institutional capacity suggesting that GST benefits are not equally distributed among states.

Lastly, the governance and sustainable development literature highlights the need to ensure that fiscal reform is both made in line with the extensive developmental goals. Institutional reforms that result in efficiency but do not impinge on equity have higher chances to add to sustainable development results (Ogwu, 2025; Thakur & Jayaram, 2024). As one of the key fiscal reforms, GST should thus be considered with regard to its efficiency effects on the sector as well as its effects on federal fiscal balance.

3. Data and Methodology

The proposed study will have a descriptive and analytical research design as fully and completely the use of secondary data to investigate the sectoral impact of the GST in India and its implication on the distribution of federal revenue. This study period is five years of 2017 2018 to 2021 2022, which is the post-implementation of GST. This period reflects the first period of the adjustment period after the launch of GST, the shock caused by the COVID-19 pandemic, and the recovery that followed, which makes it possible to combine a balanced estimation of the results of the medium term.

The post-GST performance of the key segments of the Indian economy consisting of automobile, FMCG, pharmaceuticals, logistics, and services is analysed using sectoral data. The sectors have been chosen in respect of the fact that these sectors vary widely in terms of supply chain complexity and tax incidence and indirect taxation exposure. The data on the distribution of GST revenue between the States and the Centre as well as concentration of the revenue among key contributing States are analysed using state-level data. Combined, sectoral and state-level data can create a complete evaluation of efficiency improvements and federal financial results as a result of GST.

The comparison is based on the descriptive statistical methods, such as the percentage growth rates and the comparison, to focus on the sectoral performance and revenue distribution. The data on sector-wise patterns of growth, Centre-State revenue sharing and the contribution of each state towards GST revenue is presented through graphical analysis. An institutional framework of GST governance is used to perform the conceptual analysis through which efficiency and cooperative federalism implications are interpreted.

It is performed through the use of the MS Excel 2021 to compile the data, calculate the growth rates, and develop charts and tables. The analysis is neither econometrically estimated nor is descriptive in nature. Spreadsheet based analysis is relevant as this paper aims at comparing the growth rate of sectors and the share of revenue as opposed to estimating causal relationships.

4. Results and Analysis

The findings are grouped into four dimensions closely linked with each other; sectoral impact of GST, efficiency gains through supply chains, federal revenue distribution and the institutional framework GST governance.

The effect of GST in India on sectors.

The post GST period also indicates significant difference in the growth performance by sectors which means that the effects of GST have been sector-specific and uneven. Industries that have complicated logistic systems and multi-tiered manufacturing procedures seem to have been more advantaged by the elimination of tax cascading and interstate limitations.

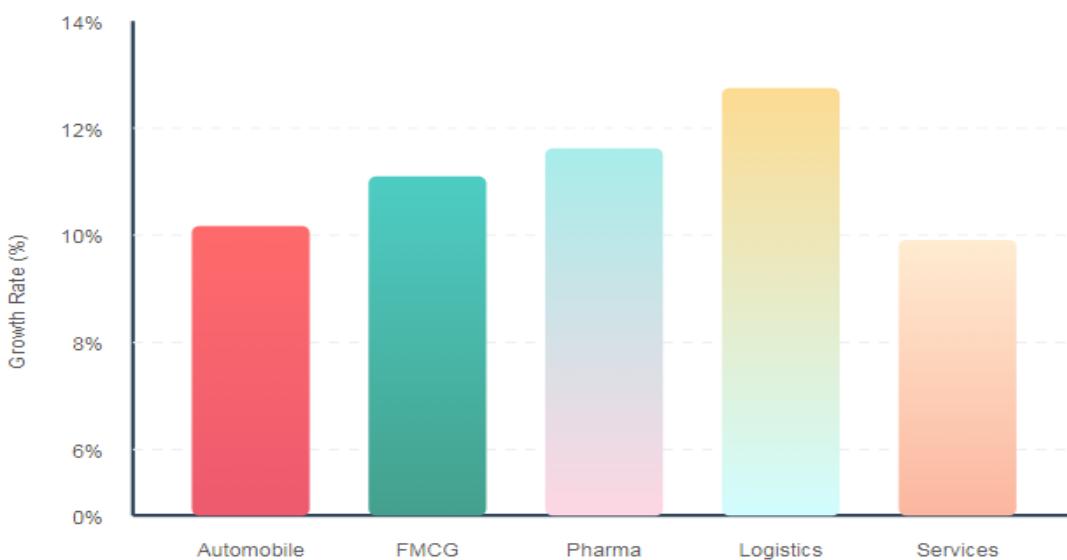


Figure 1.2 Sector-wise Post-GST Growth (%)

The figure shows that logistics registered the greatest growth; this is attributed to efficiency in terms of shortening transit delays as well as simplified taxation. The growth in pharmaceuticals and in FMCG is also high indicating better utilisation in the condition of input tax credit and integration in the supply chain. The services industry has a relatively lower growth with a general indication of adjustment difficulties due to the complexity of compliance and rate structure.

Table 1: Sector Growth Rates (%)

Sector	Growth (%)
Automobile	8.2
FMCG	9.6
Pharma	10.4
Logistics	12.1
Services	7.8

The table illustrates a report of the numerical growth rates of each sector in the post GST period. The growth rate would be 12.1 per cent which will be followed by pharmaceuticals at 10.4 per cent and FMCG at 9.6 per cent. There is moderate growth of 8.2 per cent and 7.8 per cent recorded in automobile and services sectors respectively.

The table supports the visual evidence and proves that the gains in efficiency caused by GST are concentrated in the spheres where cascading of tax and inter-state barriers played an important role in the past.

Efficiency Rapid gains between Supply Chains.

The sectoral outcomes show that the GST has been behind some quantifiable improvements in supply chains, especially those sectors that deal with logistics-reliant and manufacturing-related sectors. The good performance of logistics industry is an indication of the removal of inter-state check-posts, the faster movement of goods, and the lower cost of holding inventories. The changes have made the delivery times better, and reduced operational inefficiencies on the chain of value. The very industries that were manufacturing-based like the pharmaceuticals and FMCG were also at an advantage of smooth flow of credit through the production processes and therefore firms could streamline their sourcing and distribution decisions. Conversely, the services industry has had relatively less gains; this is based on the problems of service classification, rate slabs and increased compliance levels. These results indicate that the efficiency-enhancing benefits of GST should be the greatest under the conditions when production and distribution processes are the most vulnerable to the distortion of the indirect taxes.

GST Federal Revenue Distribution.

GST has greatly transformed the Centre-State fiscal relations through the introduction of destination based tax having common revenue powers. The allocation of GST revenue can help give information on how cooperative federalism works in the new tax system.

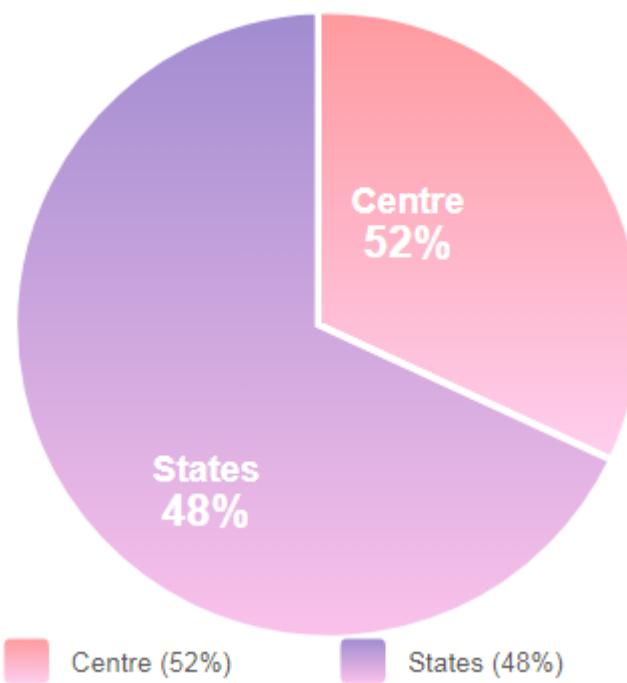


Figure 2: GST Centre - State Revenue Distribution (percentage)

The figure shows the ratio between the overall GST revenue between the Centre and the States. The chart demonstrates that the Centre records 52 per cent of the total GST revenue, and the States record 48 per cent.

The figure indicates the almost equal nature of revenue sharing in GST, which is two-fold GST. This equilibrium is essential to have state-level fiscal capacity and at the same time, sufficient resources to meet the central expenditure tasks.

State contribution to the GST Revenue.

The allocation of GST revenue among the States depicts high level of regionalism, which portrays variations in income rates, industrialisation, and consumption activities.

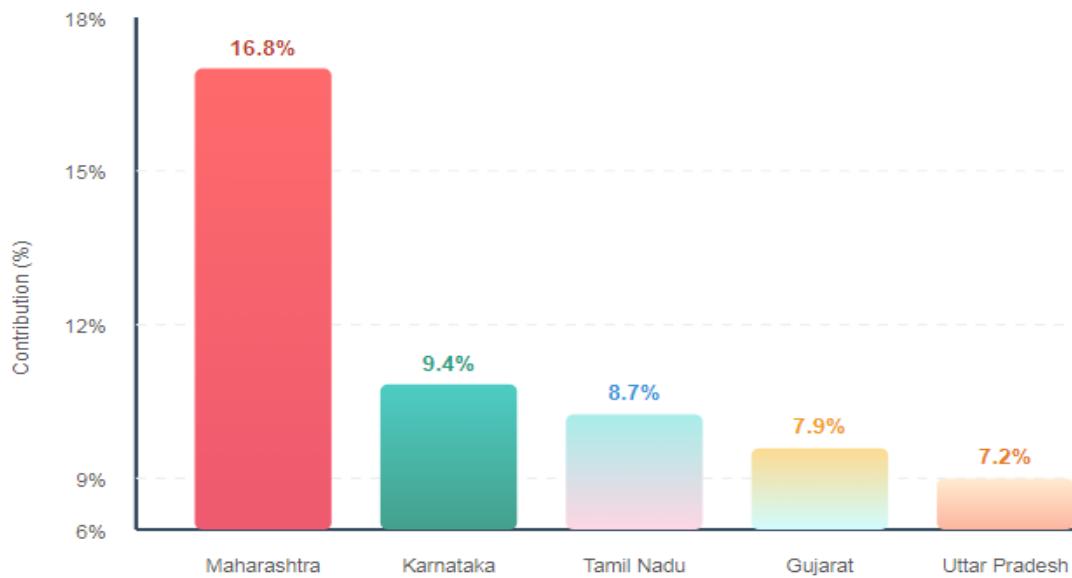


Figure 3: Percentage of Top 5 States of the GST Revenue (%)

The amount shows the contribution of the top five States to the total revenue of GST. The X-axis includes Maharashtra, Karnataka, Tamil Nadu, Gujarat, and Uttar Pradesh and the Y-axis is the contribution in percentage terms. The values are 16.8 per cent Maharashtra, 9.4 per cent Karnataka, 8.7 per cent Tamil Nadu, 7.2 per cent Gujarat and Uttar Pradesh respectively.

This figure reveals that the percentage of GST income is concentrated in few States that are economically developed and populated.

Table 2: State-wise GST Contribution (Top 5 States, %)

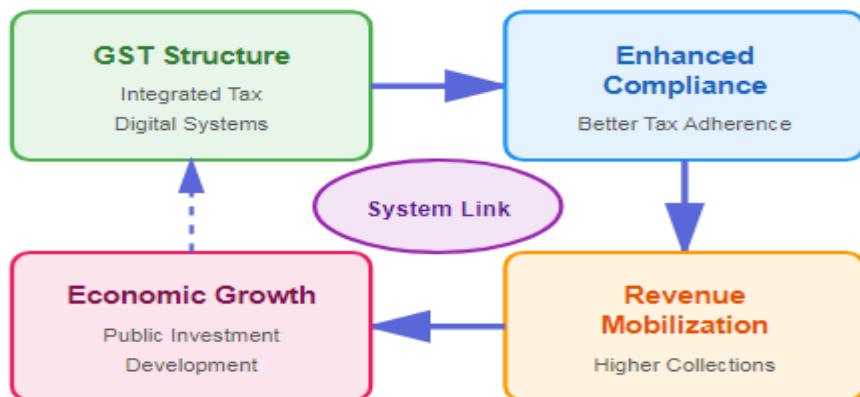
State	Contribution (%)
Maharashtra	16.8
Karnataka	9.4
Tamil Nadu	8.7
Gujarat	7.9
Uttar Pradesh	7.2

The table provides the same figures of the state-wise contribution in numerical form. Maharashtra comes out as the highest contributor with Karnataka and Tamil Nadu coming second and third respectively.

The table verifies the regionalization of GST revenue and states that the revenue mobilization is strongly connected with the space distribution of the economic activity. Although this improves efficiency, there is also the issue of fiscal reliance of the less-developed States.

GST Governance Institutional Framework.

GST is a system that functions by using an interwoven institutional setup based on the design of tax, digital compliance, and collaborative decision-making.



Framework shows sequential linkage: Structure → Compliance → Revenue → Growth

Figure 4: India GST Performance Framework.

The figure gives an understanding of a conceptual framework of how GST works as an institutional system. It demonstrates the association between GST structure, compliance mechanisms, revenue mobilisation and sectoral efficiency. The framework emphasizes the role of the digital compliance systems in increasing transparency and compliance, which result in the increased revenue collection and promotes economic efficiency and fiscal stability.

5. Discussion

The results of the given study suggest that GST has been a crucial factor in the transformation of sectors in the Indian economy. The growth results in the various sectors are differentiated pointing to sectoral restructuring as a result of GST and not the homogenous gains in efficiency. Industries that have involved complicated supply chains and a great deal of inter-state mobility, especially those related to logistics and manufacturing like pharma and FMCG have been more vindicated by the reform. This reorganization is a sign of the elimination of the cascading taxation and the unification of the fragmented markets into one national system. The institutional and service quality literature indicates that system-wide reforms are more likely to favour sectors that are in a better position to cope with standardised procedures and digital compliance systems (Ladhari, 2009; Vidani, 2024). The design of GST has thus shifted efficiency benefits to the industries that have the ability to make use of simplified taxation and integrated supply chains.

On the contrary, industries with relatively large shares of service provision have shown relatively average growth in the post-GST era. This finding is in line with previous data that regulatory complexity and compliance intensity may slow performance in service based industries in the wake of institutional reforms (Mishra et al., 2010; Shetty et al., 2022). The experience of services under GST highlights the significance of administrative simplicity and clarity in designing the tax as services that have fewer pathways in the chain of input credits and ambiguity in classification incur more costs in terms of adjustment. The dissimilarity of observed sectoral variation, therefore, indicates not only the difference in the economic structure but also the interaction between GST design and the particularities of the operation of the sector.

It is also found that the GST revenue is highly concentrated in the regions. There is a concentration of an excessively large portion of total GST collections in a small number of economically developed and populated States. This concentration is a reflection of larger trends in the economic inequality across the region and industrial agglomeration in India. The scholarly research on institutional performance and development notes that fiscal reforms tend to increase the existing regional inequalities unless the reforms are coupled with equalisation strategies (Ogwu, 2025). The GST means that the mobilisation of revenues will be tightly connected with the consumption capacity, which is greater in those States that have better industrial backgrounds, urbanization and income. Consequently, GST has strengthened the fiscal supremacy of major States besides enhancing the reliance of weaker States on inter-governmental transfer.

The regional concentration of GST revenue has significant consequences of fiscal stability and the sub-national freedom. States that are also characterized by higher revenues have greater fiscal space, hence, they are able to invest more in infrastructure and in providing government services. On the other hand, the poorer States having low GST collections will have less fiscal space and this may restrict their developmental ability. Research on fiscal governance states that the lopsided financial allocation may put pressure on the inter-governmental ties and hinder the implementation of cooperative policies (Mohan, 2005; Srinivasan et al., 2024). Although constructed on the principle of integration, the GST framework needs to be evaluated accordingly on its long-term effects on the regional equity and the fiscal balance.

This has serious consequences on the cooperative federalism. GST is a transition of competition and disintegrated tax federalism to a system of collective sovereignty and mutual decision-making. The revenue sharing between the Centre and the States is almost even which serves as an institutional effort to maintain sub-national fiscal relevancy as well as integration of the national market. Governance and institutional analysis indicates that the cooperation arrangements are more sustainable in cases where revenue-sharing mechanisms are transparent and are viewed as equitable by involved units (Bhagat et al., 2025). Such cooperation has been institutionalised in the GST framework by sharing revenues jointly and making decisions collectively.

Simultaneously, the cooperative federalism under GST is functioning in the context of an unequal financial power of the States. This imbalance gives rise to internal conflict between the goals of efficiency and equity. Although GST increases the effectiveness of the whole set-up, by harmonizing taxation with consumption, it also imbalances the revenues, in favor of economically more endowed areas. This trade-off is also highlighted in the literature of institutional reform, emphasizing that such trade-offs are typical of large-scale policy changes and that the trade-off has to be continually adjusted to ensure that politics and finances stay afloat (Mohan, 2005). The operation of cooperative federalism under GST is thus got to be maintained by the capacity of institutions to cope with such tensions in the long-term.

In general, it can be argued that GST has become a driver of sectoral restructuring and changed the fiscal relations among regions. It does not have a uniform and neutral influence, but it depends on structural and institutional conditions. The sustainability of GST to maintain sectoral performance and cooperative federalism will rest on the continued institutional adjustments, administrative improvement, and institutional measures to mitigate regional imbalances.

6. Conclusion

The research confirms that the Goods and Services Tax has become a force of change in the Indian economy in terms of the sector. GST has led to efficiency improvements, which can be measured, by eliminating tax cascading, as well as by integrating fragmented markets, notably in logistics and manufacturing-related industries. These returns suggest that GST has transformed the structure of production and distribution in a manner that is favourable to production supply chains and scale effects.

Under fiscal federalism GST has created a fairly balanced revenue sharing among the Centre and the States, which upholds the concept of cooperative federalism. Simultaneously, the fact that the GST money is concentrated in a few States indicates

that there is still a structural imbalance in the country and that there should be further focus on fiscal balance and equity in the federal system.

The GST institutional dimension has been an importance in its governance structure, and specially the importance of having a GST Council as a collective decision-making structure. Institutionalising cooperation and consensus-building, GST has brought a novel form of fiscal governance in India. The ability of this model to achieve a balance between efficiency, stability and equity to realize the long term success of the GST system as it keeps on changing will be determined.

REFERENCES

1. Arfoz. (2019). Effect of service quality on customer satisfaction: Evidence from banks in Tangali. *Management Studies and Economics Systems*, 4(2), 145–159.
2. Asif, M., Khan, M. I., & Pandey, A. (2024). Navigating inclusive and sustainable energy transitions in South Asia. *Energy Conversion and Management*, 313, 118589.
3. Asih, A. Y. P., & Setianto, B. (2021). Analysis of internal service quality and outpatient patient satisfaction using RATER model. *Medical Technology and Public Health Journal*, 5(2), 182–191.
4. Ashraf, & Venugopalan. (2018). Service quality and customer satisfaction: A comparison between public and private sector banks in Kerala. *International Journal of Research and Analytical Reviews*, 5(3), 567–572.
5. Aykac, A., Aydin, A., & Ates, C. (2009). Effects of service quality on customer satisfaction and loyalty: Example of Marmara University Hospital.
6. Bena. (2010). Evaluation of customer satisfaction in banking services. *Management and Marketing*, 5(2), 143–150.
7. Bhadeshiya, R. P., & Thakrar, N. (2024). The study of financial performance of selected private and public banks in India.
8. Bhagat, P. H., Jain, P. K., & Kaushik, C. (2025). Prioritizing customer experience in digital banking for nation's sustainable development. In *Shaping Cutting-Edge Technologies and Applications for Digital Banking and Financial Services* (pp. 340–351).
9. Dhar, & Kushwah. (2009). Service quality expectations and perceptions in Indian banks. *International Management Journal*, 1(3).
10. Kulkarni, A. M. (2024). Effect of service quality on customer satisfaction in banks.
11. Kumar, P. (2026). South Asia's solutions to water scarcity. In *Water Quality and Safety in the Global South* (pp. 333–364).
12. Ladhari, R. (2009). A review of SERVQUAL research. *International Journal of Quality and Service Sciences*, 1(2), 172–198.
13. Lai, F., Hutchinson, J., Li, D., & Bai, C. (2007). SERVQUAL in mobile communications. *International Journal of Quality & Reliability Management*, 24(3), 244–262.
14. Laxman, R., Deene, S., & Badiger, S. (2008). Changing dimensions of banking sector in India. In *Paradigm Shift in Indian Banking* (pp. 70–80).
15. Lima-Vargas, S., Cervantes-Aldana, F. J., & Lima-Vargas, A. E. (2021). Quality perception of Gen Z consumers on traditional banking. *Open Journal of Business and Management*, 9(5), 2548–2565.
16. Liu, R., Cui, L., Zeng, G., Wu, H., Wang, C., & Yan, S. (2015). Fuzzy SERVQUAL method for service quality. *Applied Soft Computing*, 26, 508–512.
17. Maharjan, S., Li, W., Fazli, S., Ansari, A., & Tiwari, S. (2025). Cascading impacts of monsoon in South Asia. *Journal of Hydrology: Regional Studies*, 57, 102155.
18. Mashishi, N. (2024). Mobile banking continuous use among Gen Z (Master's thesis, University of the Witwatersrand).
19. Mishra, U. S., Sahoo, K. K., Mishra, S., & Patra, S. K. (2010). Service quality in Indian banking. *European Journal of Social Sciences*, 16(4), 653–669.
20. Mohan, R. (2005). Financial sector reforms in India. *Economic and Political Weekly*, 40, 1106–1121.
21. Mohan, R. T. T. (2014). Financial inclusion issues. Centre for Advanced Financial Research and Learning.
22. Ngo, M. V., & Nguyen, H. H. (2016). Service quality and loyalty in retail banking. *Journal of Competitiveness*.
23. Nocera, G. (2022). Fintech and Gen Z trust in neobanks.
24. Ogwu, M. C. (2025). Sustainable development in Africa: Challenges, innovations, and policy pathways. *African Research Reports*, 1(2), 55–69.
25. Ogwu, M. C., Izah, S. C., Sawyer, W. E., & Amabie, T. (2025). Environmental risk assessment of trace metal pollution. *Environmental Geochemistry and Health*, 47, 94.
26. Ogwu, M. C., & Kosoe, E. A. (2024). Cultural diversity in sustainable water resource management in Ghana. In *Water Crises and Sustainable Management in the Global South*.
27. Poh, J., Tjiawi, H., Chidire, A., Veerasamy, B. B., & Massier, T. (2025). Geothermal development in Asia. *Renewable and Sustainable Energy Reviews*, 209, 115043.
28. Poluan, J. G., et al. (2023). Influence of e-WOM and brand image on repurchase intention. *Jurnal EMBA*, 11(4), 1685–1695.
29. Prateek, G. (2025). Climate-resilient development in South Asian agriculture. *Current Opinion in Environmental Sustainability*, 74, 101520.

30. Prinja, S., Purohit, N., Kaur, N., & Rajapaksa, L. (2024). Primary health care in South Asia. *The Lancet Global Health*, 12(10), e1693–e1705.

31. Puji Agustin, R., et al. (2021). Service quality and customer satisfaction. *JIIP: Jurnal Ilmiah Ilmu Pendidikan*.

32. Rahut, D. B., Mishra, R., & Bera, S. (2024). Geospatial determinants of malnutrition in South Asia. *Nutrition*, 120, 112346.

33. Shenoy, S., Jena, A., Levinson, C., & Sharma, V. (2025). Inflammatory bowel disease in South Asia. *The Lancet Gastroenterology & Hepatology*, 10(3), 259–274.

34. Shetty, D. K., Perule, N., Potti, S. R., Jain, M., & Naik, N. (2022). Service quality in Indian public sector banks. *Cogent Business & Management*, 9(1), 2152539.

35. Shi, Z., & Shang, H. (2020). Quality of service and SERVQUAL model. In *International Conference on Human-Computer Interaction* (pp. 188–204).

36. Shylendra, H. S. (2006). Microfinance institutions in Andhra Pradesh. *Economic and Political Weekly*, 41(20), 20–26.

37. Singh, D., Malik, G., & Bhatnagar, S. (2024). *Revolutionizing customer-centric banking through ICT*.

38. Singh, V., Sharma, M. P., Jayapriya, K., Kumar, B. K., & Chander, M. A. R. N. (2023). Service quality and customer loyalty: Literature review. *Journal of Survey in Fisheries Sciences*, 10(4S), 3457–3464.

39. Srinivasan, K., Ramesh, K., Gunasekaran, K., & Sivasubramanian, K. (2024). Reforms in Indian banking sector. In *Technology-Driven Business Innovation* (pp. 433–439).

40. Stefano, N. M., Casarotto Filho, N., Barichello, R., & Sohn, A. P. (2015). Fuzzy SERVQUAL in hotel industry. *Procedia CIRP*, 30, 433–438.

41. Thakur, S., & Jayaram, D. (2024). Climate change and development in South Asia. *Current Opinion in Environmental Sustainability*, 67, 101425.

42. Vidani, J. (2024). Service quality dimensions in banking. SSRN.

43. Vlašić, G., Keleminić, K., & Šubić, R. (2022). Consumer loyalty in banking. *Management: Journal of Contemporary Management Issues*, 27(1), 213–235.

44. Wang, F., Rani, T., & Razzaq, A. (2024). Energy consumption and digital governance. *Resources Policy*, 98, 105329.