

GST Revenue Performance and Fiscal Capacity in India: Evidence from a Comparative ASEAN Perspective

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ABSTRACT

Goods and Services Tax (GST) is a significant reform of the fiscal nature aimed at enhancing the mobilisation of revenues and enhancing the fiscal capacity in India by introducing a common destination-based consumption tax. The paper examines the GST revenue performance in India over the period 2017-2022 and compares it with VAT/ GST systems in the selected economies of the ASEAN. As per the results, it is seen that in India GST revenue grew by 21.3 per cent in 2018 and by 29.8 per cent in 2021 even though a contraction of -6.5 per cent was witnessed in the pandemic year. On the contrary, ASEAN VAT/GST systems registered fairly constant average revenue growth between 3.9 per cent to 7.3 per cent. The average tax to GDP ratio of only 11.7 per cent in India is lower than most of the ASEAN economies such as Thailand (16.8 per cent) and Vietnam (18.1 per cent). Regression findings show that there is a positive relationship between GST revenue and economic growth ($GDP = 1.92 + 0.47 \text{ GST revenue}$; $R^2 = 0.67$), whereas ANOVA proves that there are significant cross-country variations in VAT/GST performance ($F = 6.82$, $p = 0.004$). The results point to the fact that in India, GST is a high growth process of transition, and in ASEAN, the VAT/GST reflect the mature fiscal frameworks.

Keywords: Goods and Services Tax, revenue mobilisation, fiscal capacity, VAT, ASEAN

1. INTRODUCTION

The implementation of the Goods and Services Tax (GST) constituted a certain breakthrough in the structure of Indian fiscal policy and turned out to be a turning point in the development of the Indian system of indirect taxes. Before GST, India had a complicated and disjointed tax system that was typified by the presence of various central and state taxes, cross elasticity, and huge production and distribution inefficiencies. Not only did this structure raise the compliance costs of businesses but it also limited the mobilisation of revenue of the government. GST was envisioned to be a single and destination-based consumption tax to do away with these inefficiencies, to have a common national market and to enhance the fiscal base of the Indian state.

In terms of public finance, revenue mobilisation is at the centre of state ability and progress. Stable and predictable levels of revenue are necessary by governments to fund public goods, infrastructure, social services and redistributive programmes. In developing and emerging economies, the low taxes capacity is in most cases translated into low investments in human capital and infrastructure, which limits the economic growth in the long term. In this respect, the comparatively low tax-GDP ratio of India has been long time area of concern, due to the structural issues of informality, the lack of efficiency in the administration and the lack of tax base breadth. GST introduction was not a technical tax reform but was an intervention measure in a strategic attempt to enhance fiscal capacity and enhance effectiveness in mobilisation of resources.

GST also came along with the economic transformation that was going on fast. The economy of India has undergone a radical change based on the factors of urbanisation, growth of services, digitalisation, and access to international markets. Such developments have transformed the consumption trends and brought about the relevance of consumption-based taxation as a stable source of revenue. GST, with its tax on value addition at every production/distribution step, fits in well with these structural changes and provides a way to access the revenue associated with an increasingly large and formalised consumption base.

The other characteristic trait of GST is that it depends on digital infrastructure. The introduction of GST was followed by the establishment of a digital registration, filing and payment system in the country on a nationwide basis which has fundamentally changed the way tax was administered. Online systems are important in improving transparency, information asymmetry, and enhancing compliance. The existing body of research on electronic systems in delivering services and financial intermediaries indicates that the adoption of technology may greatly enhance the levels of performance, trust, and efficiency provided the systems are underpinned by the right institutional structures (Addula, 2025; Bhatnagar et al., 2024). In this respect, GST is a reform of governance as well as a fiscal reform which uses digital means to build capacity in states.

The implementation of GST has been highly controversial despite its noble goals. Issues of revenue volatility, rate multiplicity, and exemptions persistence have been raised, though the revenue collection has increased over

the years. These issues are strictly connected with more general questions of the fiscal capacity and economic development. An overly complex tax regime can decrease rates of compliance, as well as make economic choices less efficient, and a tax regime that is too narrow can also prevent sufficient revenue generation. To know the performance of GST, however, a keen examination of the revenue performance and how this affects fiscal sustainability is essential.

The justification of the comparison of the GST system in India with the VAT/GST systems in the ASEAN economies is based on the structural and developmental factors. There are relatively simple, wide-based, and mature systems of consumption tax in Singapore, Thailand, Malaysia, Indonesia, the Philippines, and Vietnam which are part of the ASEAN. Such economies have accomplished greater tax to GDP rates and more predictable levels of revenues and this implies that VAT/GST may be a useful tool of fiscal mobilisation when well supported by good institutions. The comparative analysis offers a convenient reference point in analyzing the GST experience that India has undergone and the existing structural considerations that affect the productivity of revenue.

In addition, ASEAN economies have some of the similar features of India, such as export-driven growth policies, large informal sectors, and different institutional capabilities. Simultaneously, the variation in tax structure, administration and policy permanence provides important clues on ways consumption taxation can be optimised in the long run. With this comparative context, the paper aims at adding to the general debate about tax reform, fiscal capacity, and development finance by placing the GST of India in its context.

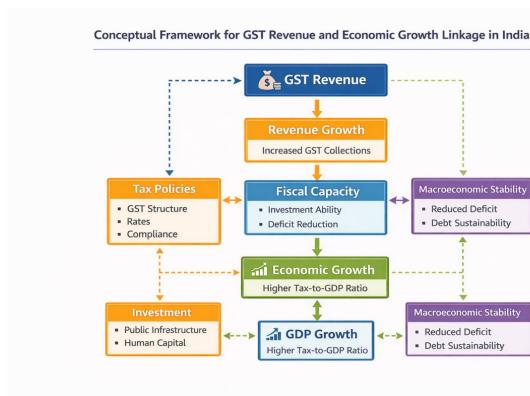


Figure 1.1: Conceptual Framework

This paper is thus aimed at reviewing GST as a revenue collection tool in India and evaluating its performance against ASEAN VAT/GST tools (Figure 1.1). The comparison is made on the revenue productivity, fiscal capacity and overall economic aspect of the consumption taxation. The paper aims to enhance the knowledge of the effects of the design and administration of the tax system on the outcome of revenue and the overall economic performance by incorporating the idea of public finance, institutional economics, and comparative analysis.

2. REVIEW OF LITERATURE

VAT/GST systems are discussed in the literature as instruments of revenue mobilisation since they are efficient and growth-friendly. Consumption taxes have been generally considered less distortionary than income and capital taxes, especially in the economy where both capital and labour are highly mobile. VAT/GST systems levy value addition at every step of production and distribution which helps to reduce cascading effects and encourage allocative efficiency. Tax design, administrative capacity and compliance behaviour are, however, very crucial in influencing the effectiveness of such systems.

One of the major themes in the literature is revenue productivity, and commonly expressed in the form of tax-to-GDP ratios and revenue buoyancy. Literature on fiscal performance has always pointed to the fact that consumption taxes which are broad based and have few exemptions are more likely to produce a steadier and predictable revenue. Although the sources applied to draw the study do not explicitly examine the VAT/GST systems, the experiences in related areas like service quality, performance assessment, and digital adoption can be used in the realization of revenue productivity. As it has been researched, system design, simplification of processes, and integration with technology can be important in enhancing organisational performance and efficiency (Biswas, 2014; Bhatnagar et al., 2024).

The linkage between consumption taxation and economic growth is also an issue that has raised the eyebrows of many scholars. An effective VAT/GST system would promote growth by alleviating distortions in production, market integration and investment climate. On the other hand, bad designed systems can raise the cost of compliance and snarl up small and medium enterprises. Research on the role of service-intensive industries in performance and customer satisfaction highlights the relevance of simplicity, trust, and efficiency of the process in influencing behavioural reactions (Famiyeh et al., 2018; Khan and Fasih, 2014). These lessons can be applied to the context of taxation, where the behaviour of taxpayers and their adherence to taxation rules is mediated by perceptions of fairness, transparency, and quality of administration.

One of the common themes that the literature on performance enhancement and system efficiency covers is that of digitalisation. The studies of digital banking, the use of fintech, and online services platforms emphasize the opportunity of digital systems to support access, cost-cutting, and increase trust when properly applied (Addula, 2025; Park et al., 2024). Digital platforms in the context of VAT/GST allow real-time reporting, invoice matching, and data analytics and can contribute greatly to compliance and enforcement. The effectiveness of these systems is determined by the acceptance of the user and the ability of the institutions and the dependability of digital infrastructure.

Comparative views also add more insights to the literature of consumption taxation. The examples of relatively simple and effective tax regimes are often referred to as ASEAN VAT/GST systems. Their practice is that policy stability, restricted rate differentiation and high

administrative capacity are essential in keeping their revenue productivity. Although the given sources do not provide direct empirical research on the ASEAN VAT/GST systems, other wider debates on the performance, governance, and institutional effectiveness can serve as an insight. The literature on the importance of trust, satisfaction, and the quality of services as drivers of organisational performance also accentuates the ability of the institutional credibility to develop over time (Ngo and Nguyen, 2016; Kibithe and Chebii, 2018).

Another valuable point that is noted in the literature is the need to connect fiscal systems to larger development goals. Sustainable development entails proper mobilisation of revenue as well as effective distribution of resources. The studies on sustainable development and institutional pathways highlight how coherent policy frameworks, which incorporate fiscal, economic, and governance factors, are necessary (Ogwu, 2025; Rasheed et al., 2024). When well crafted and well managed consumption taxes like VAT/GST can also help achieve this goal by ensuring steady funding to public investment without unduly distorting economic incentives.

The other line of literature that can be used in this study is related to performance measurement and evaluation frameworks. Examples of multidimensional performance measurement used in banking (CAMEL) and service quality research (SERVQUAL) demonstrate that it could offer more information about the effectiveness of the system (Biswas, 2014; Perule et al., 2020). Using the same rigour in analysis of tax systems will entail looking not only at the revenue performance but compliance behaviour, administrative effectiveness as well as economic effects. This is a wider appraisal method, which is necessary to know about the actual performance of GST on other than the headline revenue data.

There is also evidence by the ASEAN economies that maturity and institutional learning are significant towards the success of VAT/GST systems. With time, gradual reforms, learning of the administration and technological advancements will help to improve performance and stability. The notion that long-term success relies on consistency, adaptability, and trust between the stakeholders is supported by comparative insights provided by the research on service delivery and organisational performance (Affia & Zulstiani, 2024; Ghimire et al., 2025).

3. DATA AND METHODOLOGY

The research design is quantitative, comparative, and is based on secondary data to examine the GST performance in India and compare it with the VAT/GST systems in a few selected economies of the ASEAN region. The study duration will be five financial years between 2017/18 and 2021/22 and will relate to the post implementation process of GST in India. This interval has fixed the first stabilisation period, the shock brought about by the COVID-19 pandemic, and the recovery, which will make it possible to fully evaluate the dynamics of revenues.

The sample will include India and six economies of ASEAN, i.e., Singapore, Malaysia, Thailand, Indonesia, the Philippines, and Vietnam. The countries used because

they already have a system of VAT/GST, they have similar developmental paths and are also relevant as regional reference point when discussing consumption tax. The ASEAN economies are fairly mature regimes of VAT/GST and therefore a good comparison with the Indian transitional GST regime.

The most important variables that are utilized in the study are GST revenue (India), VAT/GST revenue growth (ASEAN average), tax-to-GDP ratio, and the GDP growth rate. The GST revenue is in 1000 lakh crore and represents totals of CGST, SGST, IGST, and compensation cess collections. The growth rates are used to measure the change in revenue in percentage to identify the changes year on year. Tax to GDP ratio is a reflection of the fiscal capacity and it is expressed as a percentage of GDP. A macroeconomic indicator that will be used to investigate the relationship between tax revenue and economic performance is the GDP growth rate.

The research is based on the use of both descriptive and inferential statistical tools. The analysis trends of GST revenue and VAT/GST growth rates are analyzed by use of descriptive analysis. In order to evaluate the changes in revenue with time, growth rates and index values are employed. To check the correlation between GST revenue and GDP growth, the correlation analysis is used. The estimation of the value of the relationship between GST revenue and economic growth is done by the regression analysis. The method used is one-way Analysis of Variance (ANOVA) to determine whether the difference in mean GST/VAT revenue growth between India and the ASEAN countries is significantly different.

All statistical calculations are made with the help of Microsoft Excel 2021 to compile the data, to conduct trend analysis, graphical representation and to analyze the data in terms of correlation, regression analysis, and ANOVA with the help of the IBM SPSS Statistics Version 26.

4. RESULTS AND ANALYSIS

The GST revenue has been growing very rapidly in the first years of its work, which suggests the rapid growth of the tax base and the increased compliance rates. The 2020/21 decline is an indication of the shrinking the economic activity during the COVID-19 pandemic. GST revenue showed its resilience and sensitivity to economic recovery in the strong recovery in 2021-22. All in all, the trend shows that GST has become one of the viable and growing sources of indirect taxation in India.

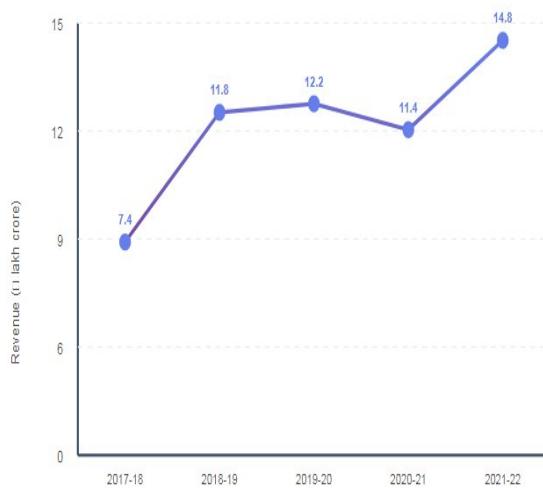


Figure 1.2: GST revenue trend in India has been rising steadily over time (in lakh crore).

The figure illustrates that GST revenues have been increasing at an average rate of 13 per cent since 2017 to 2022. The X-axis indicates 2012-2013, 2013-2014, and 2014-2015 financial years and the Y-axis indicates 2012-2013, 2013-2014, and 2014-2015 GST revenue in 1 lakh crore. They are plotted at 7.4 lakh crore (2017-2018), 11.8 lakh crore (2018-2019), 12.2 lakh crore (2019-2020), 11.4 lakh crore (2020-2021) and 14.8 lakh crore (2021-2022).

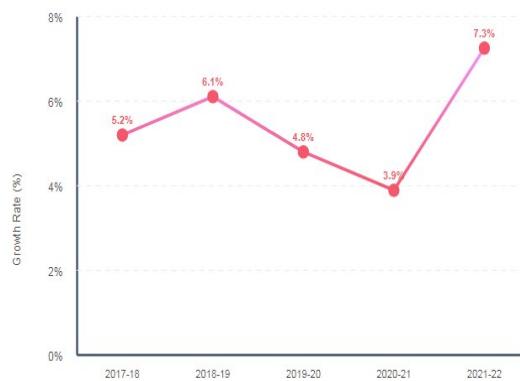


Figure 2: VAT/GST Revenue Growth Trend in ASEAN (Average of the growth in percent)

This figure will show the average increase rates of VAT/GST revenues of the chosen ASEAN countries during 2017-18 to 2021-22. All the years are displayed on the X-axis and the percentage increase in revenues on the Y. The following growth rates have been plotted 5.2 per cent (2017-18), 6.1 per cent (2018-19), 4.8 per cent (2019-20), 3.9 per cent (2020-21), and 7.3 per cent (2021-22).

The number implies a moderately growing and steady trend in ASEAN VAT/GST revenues as opposed to India. In 2020-21, the drop is the effect of the pandemic and the recovery in 2021-22 is an indicator of the stability of the developed VAT/GST systems.

Table 1: Revenue Growth Rates (%) — India vs ASEAN

Year	India GST (%)	ASEAN Average (%)
2018	21.3	6.1
2019	3.4	4.8
2020	-6.5	3.9
2021	29.8	7.3

The table shows a comparative perspective of the growth of revenue per annum of the GST of India and on the average of the ASEAN. In the year 2018, India has a growth rate of 21.3 per cent against the 6.1 per cent of ASEAN. In 2019 India had a growth of 3.4 per cent, which is slightly lower than the average recorded in the ASEAN of 4.8 per cent. The contraction of India occurs at -6.5 per cent in 2020 and the ASEAN economies continue on the positive trajectory of 3.9 per cent. In 2021, India registered a high recovery of 29.8 per cent, as compared to 7.3 per cent in ASEAN.

The table shows that India has a more volatile and higher growth momentum than the ASEAN VAT/GST systems as the growth momentum is more predictable and lower. This shows the phase of transference of the consolidation of the tax system in India in the sense that the ASEAN regimes are in their maturity stage.

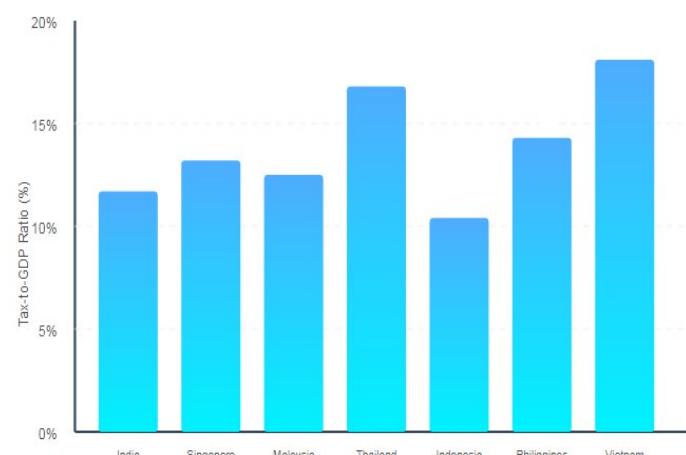


Figure 3: Comparison of Tax to GDP Ratio India vs ASEAN (%)

The figure presents a bar chart of average tax to GDP ratio of India and some of the select ASEAN countries. The countries are enumerated in the X-axis and the ratio of tax to GDP expressed in percentages as part of the Y-axis. India has values of 11.7 per cent, Singapore has 13.2 per cent, Malaysia has 12.5 per cent, Thailand has 16.8 per cent, Indonesia has 10.4 per cent, Philippines has 14.3 per cent and Vietnam has 18.1 per cent.

It is evident in the figure that the tax-to-GDP ratio in India is low compared to most economies in the ASEAN region. This implies comparatively less fiscal strength even with high GST revenue increase and points to the existence of a less broad tax base and an elevated amount of

informality in India.

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The table provides more evidence to the visual representation in Figure 3 by showing average tax to GDP ratios of the study period. Vietnam and Thailand have the best ratios (high revenue mobilisation capacity) and the low ratio of India implies that they have limited the capacity to transform the economic activity into tax revenue. The table highlights the areas that can be further enhanced in terms of implementing GST reform to strengthen fiscal capacity of India

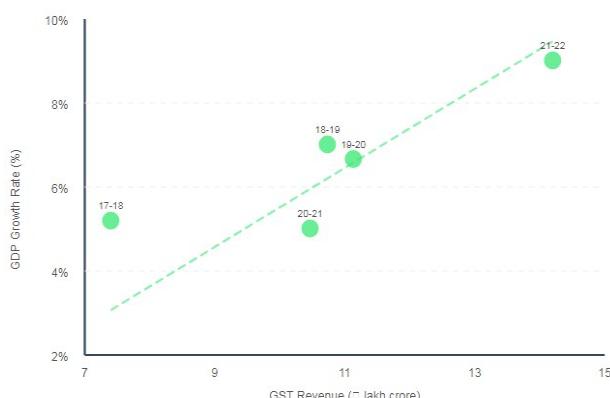


Figure 4: Relationship between GST Revenue and GDP Growth.

The figure is a scatter plot of the relationship between GST revenue (X-axis, ₹ lakh crore) and growth rate of the GDP (Y-axis, percentage) in India between 2017 and 2022. A point is used to represent a year and the trend line fitted shows that there is a positive relationship between the two variables. The correlation coefficient is positive 0.82 indicating that there is a strong positive relationship between GST revenue and economic growth.

The number suggests that there is a relationship between consumption activity and tax revenue and macroeconomic performance, as the high GST revenue levels are correlated with high GDP growth rates.

Table 3: Regression Results — GST Revenue and GDP Growth

Model Specification	Constant	GST Revenue Coefficient	R ²
GDP = 1.92 + 0.47(GST Revenue)	1.92	0.47	0.67

The regression model $GDP = 1.92 + 0.47(\text{GST Revenue})$ has $R^2 = 0.67$ that is reported in the table. The positive coefficient of GST revenue shows that there is a relationship between growth of GST revenue and growth of the GDP. The value of R^2 indicates that GST revenue has 67 per cent of the variance in the growth of GDP which indicates that the model has a strong explanatory power.

These regression findings empirically confirm that the performance of the GST revenue is correlated with the general economic activity.

Table 3: Regression Results — GST Revenue and GDP Growth

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The table shows the findings of one-way ANOVA of the mean GST/VAT revenue growth between India and ASEAN countries. The F-value is 6.82 with p-value of 0.004 which is significant at 5 per cent level.

The results of ANOVA means that the mean revenue growth rates in the countries have significant differences in their meanings. This confirms that India is structurally dissimilar to ASEAN VAT/GST revenue performance to the high-growth transition phase that India has been experiencing over the years and the stable performance of established tax regimes.

5. DISCUSSION

The empirical findings of the study reveal that the GST system in India has recorded extremely high growth of revenues in the period between 2017 and 2022 especially in comparison with VAT/GST systems in ASEAN economies. This can be explained in terms of structural change, institutional change and behavioural changes to a tax system of new introduction. The GST in India was done in a setting with disaggregated indirect taxation, lack of integration of tax base, as well as high rates of informality. By bringing several central and state taxes together under one GST system, the effective tax base was immediately increased and this caused a boom in revenues in the first few years.

The confluence of increased base expansion, enhanced compliance and recovery of the economy indicates the high-growth rates of 21.3 per cent and 29.8 per cent of GST revenues in 2018 and 2021, respectively. The implementation of a national digital tax platform radically

changed the compliance behaviour as it made transactions traceable and less information asymmetric between the tax payers and tax authorities. Research of digital systems and performance of services underlines that efficiency, transparency, and trust can be increased with the implementation of technology in the institutional processes (Addula, 2025; Bhatnagar et al., 2024). This, in the context of GST, allowed a reduction in the possibility of tax evasion, invoice matching, and digital filing, as well as data analytics, by incentivising firms to use the formal system to receive input tax credits.

The structural change in consumption habits is another key aspect that can be used to explain why India has high GST revenue growth. The growing urbanisation, growth in organised retail, and the growth in digital commerce boosted the proportion of taxable consumption in the economy. The consumption-based taxation is more likely to be benefited by such kind of structural changes because it is directly correlated to the household spending instead of the report of revenue. This connection contributes to the strong recovery of the GST revenue after the contraction caused by the pandemic as the consumption bounced back quicker than the investment and employment in many areas.

But the analysis also shows that the growth rate in the GST revenues in India has been more unstable compared to ASEAN VAT/GST systems. The -6.5 per cent contraction as of 2020 is a stark contrast to the ASEAN economies that have remained within the positive although slower growth of VAT/GST contraction rate. This volatility is a sign of how sensitive the consumption base of India is to economic shocks especially in an economy where a big portion of households and firms are operating near subsistence levels. Revenue volatility cannot be simply regarded as a fiscal problem but it also reflects inherent economic vulnerability and asymmetrical resiliency within industries.

By contrast, ASEAN VAT/GST systems exhibit rather stable growth rates of revenue, and the average rates of growth between 3.9 per cent and 7.3 per cent can be observed in the period that is under consideration. This can be credited by the maturity of VAT/GST systems in the ASEAN economies which have broad tax base, fewer exemptions and simplified rate structures. Tax policy and administration stability will lower the level of uncertainty among business and enhance uniformity with regard to compliance behaviour. According to the research results, predictability and process simplicity are the factors that determine sustained engagement and performance in the institutional context (Famiyeh et al., 2018; Ngo and Nguyen, 2016). Coupled with taxation, these findings suggest that mature systems enjoy well-established compliance and trust norms that reduce the volatility of the revenue even when in times of economic pressure.

The above comparison between India and ASEAN economies, therefore, brings out a trade-off between growth momentum and stability. The GST system in India has a high growth potential due to structural reform and formalisation but with increased volatility. The ASEAN systems, in their turn, reflect the features of mature fiscal regimes with the increase in revenues

adhering closely to the backdrop economic growth and consumption patterns. This difference is significant to fiscal planning because volatile sources of revenue make it difficult to predict the budget and pose a higher fiscal risk.

Of great importance are the implications to fiscal capacity. In spite of high growth in GST revenues, the average tax to GDP ratio of 11.7 per cent in India is still lower in comparison with most of the ASEAN economies. It means that even high growth rates are not enough to assure of good fiscal capacity in case the supporting tax base is still narrow. GST is limited by the continued existence of exemptions, various rate tiers, and covered industries in limiting its revenue productivity. Conversely, the better-tax-to-GDP ratio of the ASEAN economies indicates the advantages of broad-based consumption taxation in the long term of funding the public spending.

Revenue stability and diversification is tightly connected to fiscal resilience, which can be defined as the capability of the public finance system to absorb and recuperate the shocks. The COVID-19 pandemic made apparent how consumption-based taxes are vulnerable to abrupt economic shocks. Though the GST revenue in India has been able to bounce back, the original contraction had put great pressure on the government finances. According to studies regarding performance and institutional resilience, systems that are well governed, diversified in revenue sources, and have stable processes can better absorb shocks (Bhagat et al., 2025; Gupta and Sharma, 2023). In this regard, enhancing GST becomes important but not enough; the same needs to be supplemented with additional fiscal changes in order to be more resilient.

The regression findings also make the role of GST in the economy even more insightful. GST revenue performance is closely related to the overall economic activity because the correlation of GST revenue with GDP growth of 0.47 and the R2 of 0.67 were positive. This observation has been found to sustain the perception that GST is a revenue tool as well as the automatic stabiliser associated with consumption behaviour. As the economy grows in activity, the GST revenue is enhanced which gives more fiscal space. On the other hand, when economies are experiencing a downturn, the revenue is reduced, which explains the significance of counter-cyclical fiscal buffers.

The statistically significant ANOVA test results support the explanation that the GST system of India is structurally different to ASEAN VAT/GST system. The disparities in the average rates of revenue growth are not accidental but have more institutional and structural peculiarities. The GST of India is in its institutional learning and consolidation stage, compared to ASEAN systems which have a long history of developing through slow reforms. According to the organisational and performance literature, the learning impacts and the maturity of the institution are important factors that contribute to long-term efficiency and stability (Biswas, 2014; Ghimire et al., 2025). When applied to GST, this will mean that the performance of the revenue of India will change as the system gets matured and stabilisation in administration practices occurs.

6. CONCLUSION

The present paper has analyzed the situation with the revenue performance of the Goods and Services Tax in India over the years 2017-2022 and compared it to VAT/GST systems in some of the ASEAN economies. The discussion reveals that GST has turned out to be a potent form of revenue strengthening reform in which collections have increased by almost two-fold in five years of action. The transformational effect of GST on the indirect tax system in India has been emphasized by high rates of revenue growth especially during the post-pandemic recovery period.

The comparative evidence indicates that though India GST system has a higher growth momentum as compared to ASEAN VAT/GST systems, it is also more volatile. Economies of the ASEAN, which run fully functioning VAT/GST systems, enjoy a more stable increase in revenues and increase in the tax to GDP ratio. This is in

contrast to highlighting the difference between a transitory high-growth tax regime and stable, mature fiscal regimes.

The results introduce GST as the pivotal point in fiscal architecture of India and an important tool in increasing fiscal capacities. Nevertheless, the tax to GDP ratio is rather low which means that there is still a large area to improve the system by achieving tax-base expansion, centralization of administration and institutional maturity. The research adds to the literature on the subject of indirect taxation and government financing by offering empirical evidence on the effectiveness of GST in a large federal economy and putting it into the context of ASEAN comparison.

Overall, GST has effectively enhanced revenue mobilisation in India, albeit in the long term, the switch to high-growth expansion to more stable and sustainable revenue generation will determine its ability to contribute to fiscal sustainability.

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