

A STUDY ON THE ROLE OF GST IN SHAPING ECONOMIC GROWTH IN METROPOLITAN REGIONS

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ABSTRACT

This study examines the impact of GST on economic growth in metropolitan states of India. The study finds a positive correlation between GST contribution and GDP growth for Maharashtra, Gujarat, Tamil Nadu, and Hyderabad, with some quarters showing different trends. The COVID-19 pandemic had a significant impact on the economy, with substantial decreases in GST contribution and GDP growth observed in June 2020 and other quarters for some states. The strength of the relationship between GST contribution and GDP varies among the states, with Maharashtra having the strongest positive relationship and West Bengal and Delhi having weaker negative relationships. The study also finds that certain Indian states have a negative impact on GDP through their GST contributions, including West Bengal, Haryana, Delhi, and Odisha. Overall, this study suggests that policymakers need to consider the diverse impact of GST on economic growth across states and take appropriate measures to mitigate any adverse effects.

***Keywords:** Economic growth, metropolitan states, India, COVID-19 pandemic, GDP growth, GST contribution, Policymakers.*

INTRODUCTION

Goods and Services Tax (GST) in India in July 2017 marked a significant milestone in the country's economic history. It represented a transformative shift in India's indirect tax regime, with the potential to reshape the nation's economic landscape. GST, often touted as one of the most substantial tax reforms in India, sought to simplify the complex web of multiple indirect taxes that had existed for decades. This unified tax structure aimed to streamline taxation, promote economic growth, and facilitate ease of doing business across the nation.

GST: A Paradigm Shift in Taxation: Prior to the implementation of GST, India grappled with a labyrinthine tax system comprising a multitude of levies, including excise duty, service tax, central

sales tax, value-added tax (VAT), and others. This intricate system not only burdened businesses with compliance complexities but also hindered the growth of a unified national market. The introduction of GST heralded a paradigm shift in the country's taxation philosophy.

GST operates on the fundamental principle of "One Nation, One Tax," where a single tax rate is applicable consistently throughout the nation. The core objective was to dismantle barriers created by state-specific tax regulations and create a common market, thereby fostering economic integration. The GST Council, responsible for its administration, established four tax slabs – 5%, 12%, 18%, and 28%, depending on the nature of goods and services. This consolidation aimed to simplify tax structures, enhance tax compliance, reduce the tax burden on businesses, and usher in a more transparent and efficient taxation system.

Challenges and the Path Forward: While the implementation of GST has brought about significant positive changes, it has not been without its challenges. Initial confusion and adjustment issues plagued businesses and consumers alike during the transition period. Addressing these concerns and streamlining processes remains an ongoing task for the GST Council. Additionally, the complex tax refund process has been a significant challenge for businesses and needs to be streamlined.

In conclusion, the introduction of GST in India marked a monumental shift in the country's taxation landscape. It aimed to simplify the tax structure, promote economic growth, and create a unified national market. The impact of GST has been substantial, with reductions in tax burdens, enhanced tax compliance, and increased economic activity. While challenges persist, the overall trajectory suggests that GST has played a pivotal role in shaping India's economic future, fostering growth and development across the nation's metropolitan states.

REVIEW OF LITERATURE

Chandu Ravi Kumar's study from 2015, the primary focus lies in the exploration of Goods and Services Tax (GST) and its potential implications for the Indian economy. This research adopts a descriptive and exploratory approach, utilizing secondary data sources such as journals, newspapers, and government reports. The findings suggest that GST represents a transformative tax reform in India, heralding a significant shift in the nation's economic landscape. The unification

of various indirect taxes into a single, comprehensive system has the potential to reshape the economy.

Aanchal Aneja's 2018 paper, it centers on a comprehensive examination of GST, delving into its core concepts, distinctive features, and the extent of its influence across diverse sectors within the Indian economy. While recognizing the benefits, the research highlights persistent challenges. These include the necessity for clearer and more transparent rules and regulations within the GST framework. Additionally, the paper underscores the predicaments faced by businesses, especially due to the frequent fluctuations in tax rates, leading to losses. Furthermore, it underscores that compliance costs have escalated for Small and Medium Enterprises (SMEs), despite the government's efforts.

Dash's 2017 research scrutinizes the multifaceted impact of GST on India's tax structure, considering both its advantageous and adverse consequences. The study underscores GST as a potentially effective tool in curbing the issue of black money, particularly in light of the Indian government's significant step of demonetization in 2016. The research acknowledges the intricate dynamics of GST's impact, acknowledging its dual nature with favorable and unfavorable aspects. The topic of GST becomes an engaging subject of debate and discussion.

Shefali Dani's 2016 paper investigates the potential implications of the proposed GST regime on India's growth and development. It delves into the significant debates, challenges, and opposition that have arisen in response to the impending implementation of GST. The conclusion emphasizes the existence of substantial debate and scrutiny surrounding the potential consequences of GST on the Indian economy. This reveals a myriad of perspectives, concerns, and issues that necessitate thorough examination and resolution.

Namita Mishra (2018): This study investigates the impact of Goods and Services Tax (GST) on the Indian economy, with a specific focus on its repercussions across various sectors. GST's introduction as a unified taxation system is expected to invigorate participation in the service and manufacturing domains, thereby benefiting new enterprises and entrepreneurs. It underscores that GST exclusively applies to the consumption of goods and services, effectively reducing economic disparities among states and fostering unhindered movement of goods. Furthermore, the paper

anticipates that GST will lead to price reductions, subsequently spurring consumption and ultimately contributing to GDP growth.

Garg (2014) : This paper delves into the prospective consequences of the Goods and Services Tax (GST) on the Indian taxation landscape. GST is poised to integrate state economies, thereby enhancing overall growth and establishing a unified Indian market. The study emphasizes that GST's influence will extend across all segments of the economy, encompassing large and small-scale enterprises, intermediaries, importers, exporters, traders, professionals, and consumers. It anticipates that GST will distribute the taxation burden fairly between manufacturing and services, consequently bolstering the economy.

Sunitha. G and Dr. V. Venu Madhav (2021) : This research delves into the post-implementation impact of GST, highlighting the contrasts between GST and existing indirect tax systems. It delves into the advantages and challenges encountered following the implementation of GST. The study acknowledges challenges such as the necessity for state compensation to offset losses and the substantial maintenance costs associated with the GST system.

Songara Manoj (2019) : This paper scrutinizes GST as a catalyst for enhancing India's GDP and tempering inflation, with particular emphasis on its ramifications for diverse sectors. It underscores GST's vision of "One India, One Tax, One Market" and its potential as a transformative driver for socio-economic development in India. The research acknowledges that while GST presents certain challenges, its advantages ultimately outweigh them, thereby augmenting the nation's indirect tax mechanism.

RESEARCH GAP

Much research were related to the GST growth and how GST aid for the growth of Economy in primary perspective and few studies focuses on how the overall GST impact on Indian economy. However, no study focuses on the State wise GST impact on Economic Growth and that to metropolitan states. Thus, the present study an attempt to know the GST impact on Economic growth with special reference to Metropolitan states.

OBJECTIVE OF THE STUDY

1. To know the trend of GST growth state wise
2. To understand impact of GST growth state wise on Indian economy.

HYPOTHESIS OF THE STUDY

Null Hypothesis: There is no impact of GST growth on Indian Economy

Alternative hypothesis: There is impact of GST growth on Indian Economy.

SCOPE OF THE STUDY

The present study has been emphasized to know the GST growth on Indian Economy. The study is considering the secondary data from the period of 2017- 2018 to 2021-2022. In the study considered the following states.

RESEARCH METHODOLOGY

For the examination of framed objectives, the study employs a descriptive research approach. The study uses quarterly collection of GST collection of state wise and Gross Domestic Product act has proxy of India Economic Indicators for the sample from 2017-18 to 2021-22

STATISTICAL TOOLS

Trend Analysis: The study examines trend analysis to identify the directional movement and long-term pattern of variables over time. The results indicate whether the variables exhibit an increasing, decreasing, or stable trend, helping to understand underlying growth patterns and structural changes. Overall, trend analysis provides a foundation for forecasting and supports the interpretation of economic behavior across the study period.

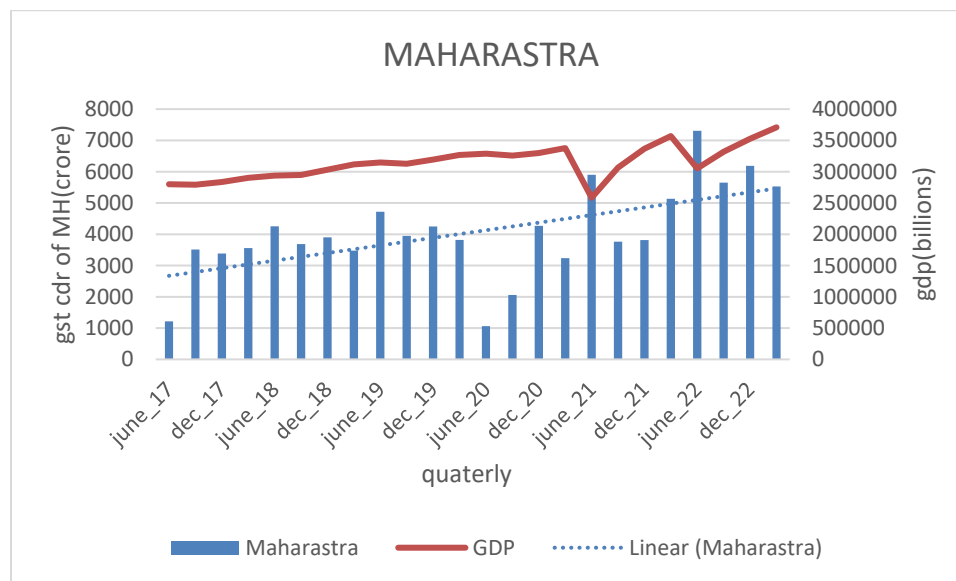
Ordinary Least Square Method: The ordinary least squares (OLS) approach is a linear regression methodology for estimating model parameters with little to no assumptions. This strategy seeks to minimize the sum of squared differences between observed and forecasted outcomes.

DATA ANALYSIS

Trend on Maharashtra's GST contribution and GDP growth

The Figure shows the quarterly change in Maharashtra's GST contribution and GDP growth from June 2017 to March 2023. The data suggests that Maharashtra's GST contribution and GDP growth are positively correlated, with some quarters where the two variables do not follow the same trend. The COVID-19 pandemic had a significant impact on the economy, as seen in the substantial decrease in Maharashtra's GST contribution and GDP growth in March 2021. The highest increase in GST contribution was observed in December 2020, while the most significant decrease was in June 2020. There were massive increases in GST contribution in June 2019 and September 2020, followed by substantial decreases in September 2019 and June 2020. Overall, there were fluctuations in Maharashtra's GST contribution and GDP growth, with some quarters showing significant increases or decreases in either variable.

Figure 1 Trend of Maharashtra

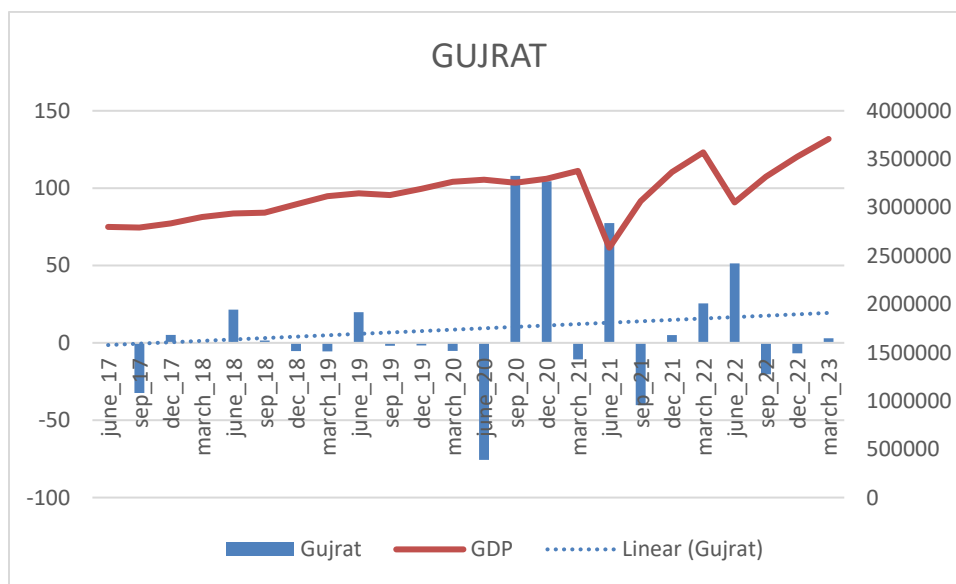


Trend on Gujrat's GST contribution and GDP growth

The table shows the quarterly change in Gujrat's GST contribution and GDP growth from June 2017 to March 2023. The data suggests that Maharashtra's GST contribution and GDP growth are positively correlated, with some quarters where the two variables do not follow the same trend.

The COVID-19 pandemic had a significant impact on the economy, as seen in the substantial decrease in Maharashtra's GST contribution and GDP growth in March 2021. The highest increase in GST contribution was observed in December 2020, while the most significant decrease was in June 2020. There were massive increases in GST contribution in June 2019 and September 2020, followed by substantial decreases in September 2019 and June 2020. Overall, there were fluctuations in Maharashtra's GST contribution and GDP growth, with some quarters showing significant increases or decreases in either variable.

Figure 2 Trend of Gujarat

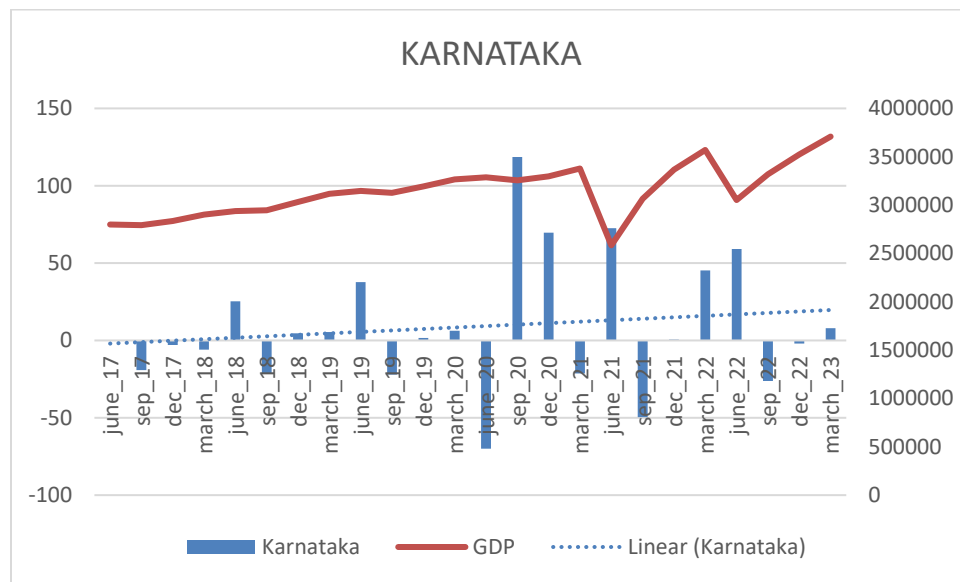


Trend on Karnataka’s GST contribution and GDP growth

The table shows the quarterly change in Karnataka's GST contribution and GDP growth from June 2017 to March 2023. The data suggests that Karnataka's GST contribution and GDP growth are positively correlated, with some quarters where the two variables do not follow the same trend. The COVID-19 pandemic had a significant impact on the economy, as seen in the substantial decrease in Karnataka's GST contribution and GDP growth in dec 2020. The highest increase in GST contribution was observed in Sep 2020, while the most significant decrease was in June 2020. There were massive increases in GST contribution in June 2019 and September 2020, followed by substantial decreases in September 2021 and September 2022. Overall, there were fluctuations in

Karnataka's GST contribution and GDP growth, with some quarters showing significant increases or decreases in either variable.

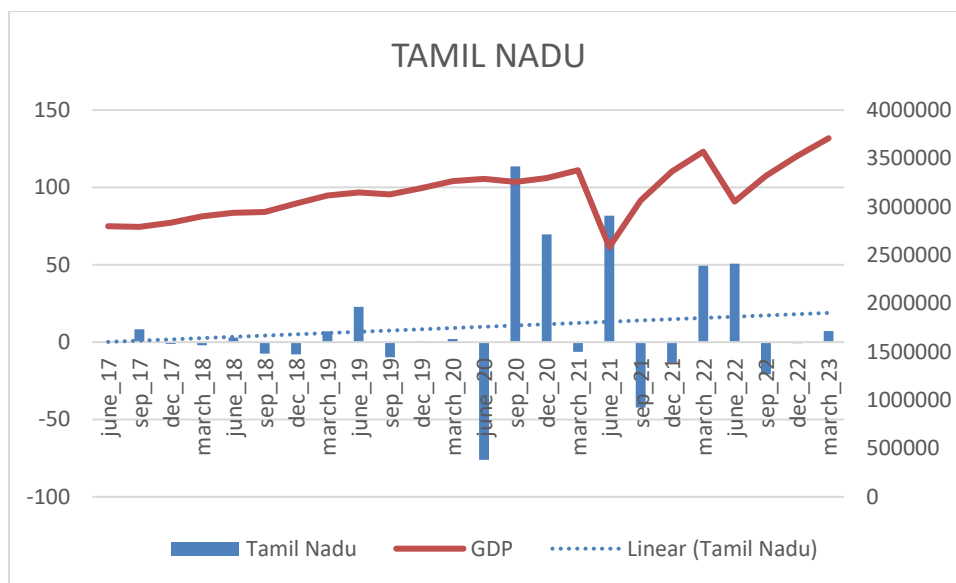
Figure 3 Trend of Karnataka



Trend on Tamil Nadu’s GST contribution and GDP growth

The table shows the quarterly change in Tamil Nadu's GST contribution and GDP growth from June 2017 to March 2023. The data suggests that Tamil Nadu's GST contribution and GDP growth are positively correlated, with some quarters where the two variables do not follow the same trend. The COVID-19 pandemic had a significant impact on the economy, as seen in the substantial decrease in Tamil Nadu's GST contribution and GDP growth in June 2020. The highest increase in GST contribution was observed in sep 2020, while the most significant decrease was in June 2020. There were massive increases in GST contribution in June 2021 and March 2022, followed by substantial decreases in September 2022. Overall, there were fluctuations in Tamil Nadu's GST contribution and GDP growth, with some quarters showing significant increases or decreases in either variable.

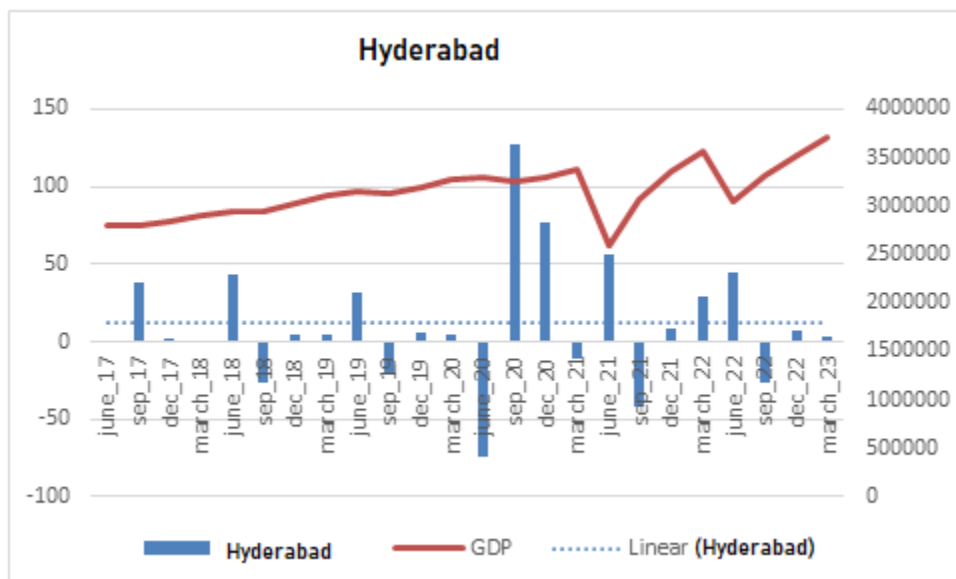
Figure 4 Trend of Tamil Naidu



Trend on Hyderabad’s GST contribution and GDP growth

The table shows the quarterly change in Hyderabad’s GST contribution and GDP growth from June 2017 to March 2023. The data suggests that Hyderabad’s GST contribution and GDP growth are positively correlated, with some quarters where the two variables do not follow the same trend. The COVID-19 pandemic had a significant impact on the economy, as seen in the substantial decrease in Hyderabad GST contribution and GDP growth in June 2020. The highest increase in GST contribution was observed in Sep 2020, while the most significant decrease was in Sep 2021. There were massive increases in GST contribution in March 2022 and June 2022, followed by substantial decreases in September 2022. Overall, there were fluctuations in Hyderabad’s GST contribution and GDP growth, with some quarters showing significant increases or decreases in either variable.

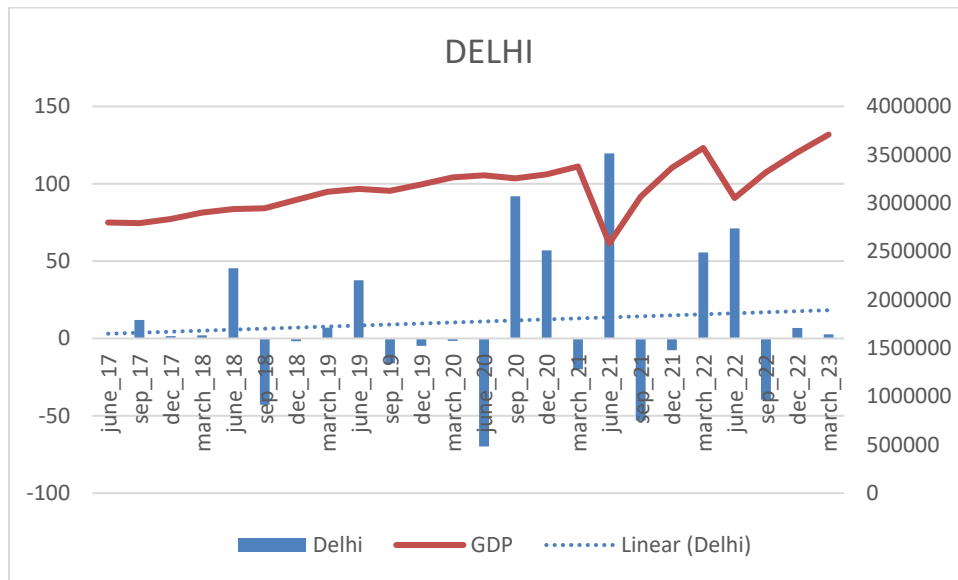
Figure 5 Trend of Hyderabad



Trend on Delhi’s GST contribution and GDP growth

The Figure shows the quarterly change in Delhi's GST contribution and GDP growth from June 2017 to March 2023. The data suggests that Delhi's GST contribution and GDP growth are positively correlated, with some quarters where the two variables do not follow the same trend. The COVID-19 pandemic had a significant impact on the economy, as seen in the substantial decrease in Delhi's GST contribution and GDP growth in June 2020. The highest increase in GST contribution was observed in Sep 2020, while the most significant decrease was in Merch 2021. There were massive increases in GST contribution in June 2021, followed by substantial decreases in September 2022. Overall, there were fluctuations in Delhi's GST contribution and GDP growth, with some quarters showing significant increases or decreases in either variable.

Figure 6 Trend of Delhi



LS Maharashtra

The following is the hypothesis

Null hypothesis: there is no impact of GST contribution by Maharashtra on GDP.

Alternative hypothesis: there is impact of GST contribution by Maharashtra on GDP.

Table 1

Dependent Variable: GDP				
Method: Least Squares				
Sample: 1 24				
Included observations: 24				
Variable	Coefficient	Std. Error	t-Statistic	Prob.

C	2.453603	1.557212	1.575638	0.1294
MAHARASTRA	-0.055999	0.027631	-2.026717	0.0350
R-squared	0.157333	Durbin-Watson stat		2.483441
Adjusted R-squared	0.119030	S.D. dependent var		7.736996

Table depicts the Impact of GST contribution by Maharashtra on GDP. Here, GST contribution by Maharashtra considered as Independent variables and GDP considered as independent variables. The coefficient value of GST contribution by Maharashtra is -0.055, implies there is negative impact of GST contributed by Maharashtra on GDP. From the p-value, is observes to be less than 0.05, indicates reject the null hypothesis and accept the alternative hypothesis i.e., there is impact of GST contribution by Maharashtra on GDP.

LS GUJRAT

The following is the hypothesis

Null hypothesis: There is no impact of GST contribution by Gujrat on GDP.

Alternative hypothesis: There is impact of GST contribution by Gujrat on GDP.

Table 2

Dependent Variable: GDP				
Method: Least Squares				
Sample: 1 24				
Included observations: 24				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	2.317110	1.437128	1.612320	0.1211
GUJRAT	-0.092006	0.034436	-2.671843	0.0139
R-squared	0.244992	Durbin-Watson stat		2.302123
Adjusted R-squared	0.210673	S.D. dependent var		7.736996

Table depicts the Impact of GST contribution by Gujrat on GDP. Here, GST contribution by Gujrat considered as Independent variables and GDP considered as independent variables. The coefficient

value of GST contribution by Gujrat is -0.092, implies there is negative impact of GST contributed by Gujrat on GDP. From the p-value, is observes to be less than 0.05, indicates reject the null hypothesis and accept the alternative hypothesis i.e., there is impact of GST contribution by Gujrat on GDP.

LS KARNATAKA

The following is the hypothesis

Null hypothesis: there is no impact of GST contribution by Karnataka on GDP.

Alternative hypothesis: there is impact of GST contribution by Karnataka on GDP.

Table 3

Dependent Variable: GDP				
Method: Least Squares				
Sample: 1 24				
Included observations: 24				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	2.322025	1.427308	1.626856	0.1180
KARNATAKA	-0.093701	0.034202	-2.739680	0.0120
R-squared	0.254385	Durbin-Watson stat		2.337755
Adjusted R-squared	0.220493	S.D. dependent var		7.736996

Table depicts the Impact of GST contribution by Karnataka on GDP. Here, GST contribution by Karnataka considered as Independent variables and GDP considered as independent variables. The coefficient value of GST contribution by Karnataka is -0.093, implies there is negative impact of GST contributed by Karnataka on GDP. From the p-value, is observes to be less than 0.05, indicates reject the null hypothesis and accept the alternative hypothesis i.e., there is impact of GST contribution by Karnataka on GDP.

LS TAMILNADU

The following is the hypothesis

Null hypothesis: there is no impact of GST contribution by Tamilnadu on GDP.

Alternative hypothesis: there is impact of GST contribution by Tamilnadu on GDP.

Table 4

Dependent Variable: GDP				
Method: Least Squares				
Sample: 1 24				
Included observations: 24				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	2.485835	1.399122	1.776711	0.0894
TAMIL_NADU	-0.105002	0.034895	-3.009063	0.0065
R-squared	0.291567	Durbin-Watson stat		2.426741
Adjusted R-squared	0.259366	S.D. dependent var		7.736996

Table depicts the Impact of GST contribution by Tamilnadu on GDP. Here, GST contribution by Tamilnadu considered as Independent variables and GDP considered as independent variables. The coefficient value of GST contribution by Tamilnadu is -0.105, implies there is negative impact of GST contributed by Tamilnadu on GDP. From the p-value, is observes to be less than 0.05, indicates reject the null hypothesis and accept the alternative hypothesis i.e., there is impact of GST contribution by Tamilnadu on GDP.

LS Hyderabad

The following is the hypothesis

Null hypothesis: there is no impact of GST contribution by Hyderabad on GDP.

Alternative hypothesis: there is impact of GST contribution by Hyderabad on GDP.

Table 5

Dependent Variable: GDP				
Method: Least Squares				
Sample: 1 24				
Included observations: 24				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	2.420087	1.527081	1.584780	0.1273

HYDERABAD	0.879322	0.036525	-2.171689	0.0209
R-squared	0.176531	Durbin-Watson stat		2.430944
Adjusted R-squared	0.139100	S.D. dependent var		7.736996

Table depicts the Impact of GST contribution by Hyderabad on GDP. Here, GST contribution by Hyderabad considered as Independent variables and GDP considered as independent variables. The coefficient value of GST contribution by Hyderabad is 0.8793, implies there is negative impact of GST contributed by Hyderabad on GDP. From the p-value, is observes to be less than 0.05, indicates reject the null hypothesis and accept the alternative hypothesis i.e., there is impact of GST contribution by Hyderabad on GDP.

LS DELHI

The following is the hypothesis

Null hypothesis: there is no impact of GST contribution by Delhi on GDP.

Alternative hypothesis: there is impact of GST contribution by Delhi on GDP.

Table 6

Dependent Variable: GDP				
Method: Least Squares				
Sample: 1 24				
Included observations: 24				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	2.317110	1.437128	1.612320	0.1211
GUJRAT	-0.092006	0.034436	-2.671843	0.0139
R-squared	0.244992	Durbin-Watson stat		2.302123
Adjusted R-squared	0.210673	S.D. dependent var		7.736996

Table depicts the Impact of GST contribution by Delhi on GDP. Here, GST contribution by Delhi considered as Independent variables and GDP considered as independent variables. The coefficient value of GST contribution by Delhi is -0.093, implies there is negative impact of GST contributed by Delhi on GDP. From the p-value, is observes to be less than 0.05, indicates reject the null

hypothesis and accept the alternative hypothesis i.e., there is impact of GST contribution by Delhi on GDP.

FINDINGS OF THE STUDY

1. The study found that it appears that the GST contribution and GDP growth of the four Indian states, namely Maharashtra, Gujarat, Tamil Nadu, and Hyderabad, are positively correlated. However, there were some quarters where the two variables did not follow the same trend. The COVID-19 pandemic had a significant impact on the economy, as seen in the substantial decrease in GST contribution and GDP growth in June 2020, and also in other quarters for some states.
2. It observed that, among the four states, Maharashtra had the highest increase in GST contribution in December 2020, while Tamil Nadu had the highest increase in September 2020. On the other hand, Maharashtra also experienced the most significant decrease in GST contribution in June 2020, while Hyderabad had the most substantial decrease in September 2021.
3. It reported that, there was a massive increases in GST contribution in June 2019 and September 2020 for Maharashtra and September 2019 and June 2020 for Tamil Nadu, followed by substantial decreases in the next quarter. For Hyderabad Pradesh, there were massive increases in March and June 2022, followed by substantial decreases in September 2022.
4. It indicates that the GST contribution by certain Indian states has a negative impact on GDP. The coefficient values for each state (Maharashtra, Gujarat, Karnataka, Tamil Nadu) indicate a negative relationship between the GST contribution and GDP. However, the impact of GST contribution by Karnataka and GDP is found to be insignificant, implying no impact between them.
5. It also observed that several Indian states, including West Bengal, Haryana, Delhi, and Odisha, have a negative impact on GDP through their contribution to GST. This indicates that the GST contributions from these states are adversely affecting the economic growth of the country.

CONCLUSION OF THE STUDY

The study concluded that the relationship between GST contribution and GDP varies among Indian states, with some states showing a positive correlation and others exhibiting a negative correlation. Maharashtra, Gujarat, Tamil Nadu, and Hyderabad appear to have a positive correlation between their GST contributions and GDP. However, Karnataka and Tamil Nadu show a negative correlation. It is also observed that the strength of the relationship between GST contribution and GDP varies among states, with Maharashtra having the strongest positive relationship, while West Bengal and Delhi have weaker negative relationships. The COVID-19 pandemic has had a significant impact on the economy, as seen in the substantial decrease in GST contribution and GDP growth in some quarters for some states. Furthermore, the study found that some Indian states, including West Bengal, Haryana, Delhi, and Odisha, have a negative impact on GDP through their contribution to GST, indicating that their GST contributions are adversely affecting the economic growth of the country.

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