



Impact of goods and services tax on the revenue of the Telangana state- A case study

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Abstract

Telangana is one of the emerged states in India after bifurcation from Andhra Pradesh State. In India, GST was introduced after three years when Telangana separated. GST is one of drastic reform in direct tax system in India which almost six years by the end of 2023. Therefore, present study analyzed the impact of GST on the revenue of the newly emerged states in general and Telangana State in particular for the period of 2015-2023 i.e. three years pre and six years post GST period. The selected parameters are State tax revenue, non-tax revenue, Grant in Aid, total revenue receipts, capital receipts, total receipts. The study used t-test to measure the significance of the impact. The study found that significant impact of GST on tax revenue, total revenue receipts and total receipts, on the other hand, insignificant impact on the non-tax revenue, grant in and capital receipts.

Keywords: Goods and service tax, tax revenue, Telangana state, capital receipts etc

Introduction

Telangana State. The present chapter fulfills this objective with selection and analysis of revenue parameters and GST parameters during pre and post GST period i.e 2015-2017 and 2018-2023. The study measured the impact through using t-test assuming unequal variance which is most suitable when unequal years are taken for assessment of a specific event. The present study is made in elaborate stature to measure the impact of GST on various elements, viz., revenue wise, receipt wise, expenditure wise, surplus / deficit wise, share of each source of income wise of and other components wise. An attempt has been made to examine the Revenue wise impact of GST in terms of state contribution to central taxes, state tax revenues, non-tax revenues and grant in aids and a brief note of which is presented below:

Telangana State Contribution in Central Taxes

In the present study the share of State tax in total central tax is analysed during pre and post GST period. The central tax comprises of combination of central plus state taxes every year. The share of central taxes is comprising of share in income tax, union excise duty, additional duties of excise and estate duty. The increase in state tax in total central taxes indicates the significant rise in the contribution Telangana State in total tax revenue of central government and vice versa. The state tax is presented in absolute amount and in percentage in the below table.

Review of Literature

Amar Ranjan Dey (2024) ^[1] conducted a descriptive research work on the public perception on GST in Nagaland State among 376 members as sample size and selected through stratified sampling technique. The study observed static prices of goods is the same all over the country during post GST period and goods are quickly transferred than earlier. The GST reduces the paperwork, and a taxpayer can file their return quickly. Besides, the study also found that the new tax regime would increase transparency in the Indian indirect tax system, increasing India's revenue. The

GST regime reduced corruption and loopholes in the indirect taxation system due to online filing system.

Bhalla, N *et al* (2023) ^[2] analyzed the impact of GST on MSME sector in India by taking 404 registered MSMEs as sample size. The study found overall positive impact of GST on business performance, technology transition, tax awareness and knowledge, ease of doing business, operational efficiency, increased profitability and reduced the working capital blockage of funds. On the contrary the study also observed negative effects such as increase in compliance burden and harmed their performance in short period.

Bhupendra Goyal & Somesh Dhamija (2022) ^[3] opined that Indian government implemented GST with aim to reduce the multiple tax system which leads to price reduction and ultimate consumer benefits. However, there is a scope for illegal profiting by the seller by non-transferring of price reduction to consumers. To address this issue anti-profiting provision is included in GST. The study discussed various important provisions included in the GST to prevent seller from profiting and consumer be benefited.

Tekwani, Kritika (2021) ^[4], analysed the six years handcraft export performance in Rajasthan especially focused on pre and post implementation of GST. The sample size included 150 handcraft exporters. The study period is from 2014-15 to 2019-20 total six years three years pre and three years post GST period. The stud used factor analysis, ANOVA, correlation, multiple linear regressions, and paired t-test. The study found significant positive impact of GST on the exporters of handcraft business in Rajasthan. The study also revealed that LUT/bond is the most prominent factor of GST and has a significant and positive impact on the easiness of exporting the handcraft exporters.

Ameen, N. O. (2020) ^[5] examined the customer awareness on the GST system in restaurants in Chennai City. The sample size included 124 customers. The study adopted chi-square test and found that age wise significant level variation in of level awareness and satisfaction on GST application in restaurants in Chennai. The study also observed that GST rates on restaurants are very cost burden and demands for reduction.

Need of the Study

The Government of India has introduced Goods and Services Tax on 1st July 2017 throughout the Nation with a concept of ‘One Nation One Tax’ to remove various kinds of taxes that have been levied by the Central and State Governments and simplify with a tax system to share equally between the Centre and States. Prior to introduction of GST, the state governments were at liberty to enhance their revenue through various means viz., Value Added Tax, Central Sales Tax, Purchase Tax, Entertainment Tax, Luxury Tax, Entry Tax, Taxes on lotteries. Betting and gambling. With the introduction of GST, all above taxes have been subsumed and the State Government does not have any authority at his command to impose any additional tax on the public of the state with the introduction of GST, which necessitated the study on the ‘Impact of Goods and Services Tax on the Revenue of Telangana State: as no sufficient study has been done in the past.

Obectives of the Study

- To study impact of GST on Tax Revenue of the Telangana State
- To study impact of GST on Non-Tax Revenue of the Telangana State
- To study impact of GST on Grant in Aid of the Telangana State
- To study impact of GST on Total Revenue Receipts of the Telangana State
- To study impact of GST on Total Capital Receipts of the Telangana State
- To study impact of GST on Total Receipts of the Telangana State

Hypothesis Examined: In the study present alternative hypothesis are formulated and examined whereas alternative hypothesis are implied

H₁: There is significant impact of GST on Tax Revenue of the Telangana State

H₂: There is significant impact of GST on Non-Tax Revenue of the Telangana State

H₃: There is significant impact of GST on Grant In Aid of the Telangana State

H₄: There is significant impact of GST on Total Revenue Receipts+ of the Telangana State

H₅: There is significant impact of GST on Capital Receipts of the Telangana State

H₆: There is significant impact of GST on Total Receipts of the Telangana State

Research Methodology

Present study is analytical in nature. The secondary data collected from the Budgetary Books of Telangana State played key role in analysis of data and drawing inferences. The study period included total nine years three years pre GST period and six years post GST period. The selected revenue parameters in the study are The selected parameters are State tax revenue, non-tax revenue, Grant in Aid, total revenue receipts, capital receipts, total receipts. The study used t-test Assuming unequal variance is used to measure the significance of the impact.

Data Analysis and Interpretation

Tax Revenue during Pre and Post GST Period

The tax revenue is major source of income to every State and Central government. GST is tax reforms which show direct impact on the tax revenue of the State governments. Therefore, present study analyzed the trend in tax revenue of Telangana during pre and post GST period. The tax revenue comprises of sources such as A) GST b) taxes on income and expenditure c) taxes on property and capital transaction d) taxes on commodities and services. The increasing trend in tax revenue is positive sign for revenue generation and vice versa. The trend in tax revenue and effect of GST on tax revenue are calculated and presented in below tables.

Table 1: Telangana State Tax Revenue During Pre- Post Gst Period

Year	Pre –Gst Period (2015-2017) Rs (Cr)	Year	Post-Gst Period (2018-2023) (Rs Cr)
2014-15	29288.38	2017-18	56519.82
2015-16	39974.63	2018-19	64674.07
2016-17	48407.81	2019-20	67597.49
		2020-21	66650.37
		2021-22	91271.38
		2022-23	106948.9
Total	117670.8	Total	453662.1
Mean Value	39223.61	Mean value	75610.35

Source: Computed from the Telangana Budget Reports 2015-2023

Table 1 exhibits the trend in tax revenue of the Telangana State during pre and post GST period. The study found that, tax revenue of the State was Rs 29,288 Cr in 2014-15 which rose significantly to Rs 39,974.63 Cr in 2015-16 and Rs 48407.81 Cr in 2016-17. During post GST period, in first three years State tax revenue gradually shown uptrend i.e to Rs 56519.80 Cr in 2017-18, Rs 64674.07 Cr in 2018-19 and Rs 67597.49 Cr in 2019-20. Therefore, in 2021- State tax revenue slightly drops to Rs 66,650.07 Cr due to Covid effect. Therefore, the uptrend was continued with very significantly rise and reported to Rs 91271.38 Cr in 2021-22 and historical high of Rs 1,06,948.90 Cr in 2022-23. The total tax revenue of the State was Rs 1,17,760.80 Cr with

mean value of Rs 39,223.61 Cr during pre GST period which reported Rs 4,53,662.10 Cr with mean value of Rs 75,610.35 Cr during post GST period. The study observed that, growth in tax revenue of State majority attributable to rapid increase in stamps and registration fees, tax on sales and trade and state excise which accounts to more than two third share in total tax revenue.

Hypothesis Testing

After understanding the Telangana State Tax Revenue, an effort is made here to understand the impact of GST from the State Tax Revenue, the following null hypothesis formulated in consonance of the study objectives and tested.

H01.2: There is insignificant impact of GST on the state tax revenue

T-Test: Two-Sample Assuming Unequal Variances		
	<i>Variable 1</i>	<i>Variable 2</i>
Mean	39223.60767	75610.345
Variance	91811159.52	371182561.3
Observations	3	6
Hypothesized Mean Difference	0	
df	7	
t Stat	-3.783978016	
P(T<=t) one-tail	0.003428285	
t Critical one-tail	1.894578605	
P(T<=t) two-tail	0.006856571	
t Critical two-tail	2.364624252	

In the present study, the out of t-test Two-Sample Assuming Unequal Variances recommends to reject the null hypothesis because the *p*-value (0.0006) is lower than the level of significance (0.05). Contextually, the study witnessed that, reject the null hypothesis that there is insignificant impact of GST on the State tax revenue and accepts alternative hypothesis of There is significant impact of GST on the State tax revenue. Finally, the study proved effect of GST on the State Tax Revenue during post GST period.

Telangana State Non-Tax Revenue during Pre and Post GST Period: The non-tax revenue is another source of

income to every State and Central government. The non- tax revenue comprises of sources such interest and dividend receipts, revenue from general services (tax collection, administrative services, others), revenue from social services and economic services. GST is tax reforms show indirect impact on the non-tax revenue of the State governments. Therefore, present study analyzed the trend in non- tax revenue of Telangana during pre and post GST period. The increasing trend in tax revenue is positive sign for revenue generation and declined trend indicates negative sign.

Table 2: Telangana State Non-Tax Revenue During Pre- Post Gst Period

Year	Pre-Gst Period (2015-2017) (Rs Cr)	Year	Post-Gst Period (2018-2023) (Rs Cr)
2014-15	6446.82	2017-18	7825.4
2015-16	14414.36	2018-19	10007.42
2016-17	9781.71	2019-20	7360.32
		2020-21	6101.24
		2021-22	8857.42
		2022-23	19553.99
Total	30642.89	Total	59705.79
Mean Value	10214.3	Mean value	9950.965

Source: Computed from the Telangana Budget Reports 2015-2023

Table 2 exhibits the trend in non-tax revenue of the Telangana State during pre and post GST period. The study found that, non- tax revenue of the State was Rs 6446.82 Cr in 2014-15 which increased by more than two fold to Rs 14,414.36 Cr in 2015-16 and drop to Rs 9781.71 Cr in 2016-17. During post GST period, in first three years State tax revenue reported fluctuations i.e to Rs 7825.40 Cr in 2017-18 and increases to Rs 10007.42 Cr in 2018-19 and again decreased to Rs 7360.32 Cr in 2019-20 and reported historical low of Rs 6101.24 Cr due to Covid effect. Thereafter, State non-tax revenue significantly increased to Rs 8857.24 Cr and reached to historical highest of Rs

19553.99 Cr in 2022-23. The total non- tax revenue of the State was Rs 30642.89 Cr with mean value of Rs 10214.30 Cr during pre-GST period which reported Rs 59705.79 Cr with mean value of Rs 9950.96 Cr during post GST period. In non- tax revenue, revenue from general services is major sources.

Hypothesis Testing

After understanding the Telangana state Non-Tax Revenue, an effort is made here to understand the impact of GST on Non-Tax Revenue, the following **null hypothesis** formulated in consonance of the study objectives and tested.

H01.3: There is insignificant impact of GST on the state Non-Tax Revenue

t-Test: Two-Sample Assuming Unequal Variances		
	<i>Variable 1</i>	<i>Variable 2</i>
Mean	10214.2975	9950.965
Variance	16010793.28	23893393.53
Observations	3	6
Hypothesized Mean Difference	0	
df	5	
t Stat	0.0862613	
P(T<=t) one-tail	0.467303278	
t Critical one-tail	2.015048373	
P(T<=t) two-tail	0.934606556	
t Critical two-tail	2.570581836	

In the present study, the out of t-test Two-Sample Assuming Unequal Variances recommends to accept the null hypothesis because the *p*-value (0.93) is significantly higher

than the level of significance (0.05). Contextually, the study witnessed that, accept the null hypothesis that, there is insignificant impact of GST on the State non- tax revenue

and reject alternative hypothesis of there is significant impact of GST on the State tax revenue. Finally, the study

proved no effect of GST on the State Non-Tax Revenue during post GST period.

Table 3: Telangana State Grand In-Aid During Pre- Post Gst Period

Year	Pre –GST Period (2015-201) Rs (Cr)	Year	Post-GST Period (2018-2023) (Rs Cr)
2014-15	7118.10	2017-18	8058.8
2015-16	9394.12	2018-19	8177.79
2016-17	9751.90	2019-20	11598.42
		2020-21	15471.13
		2021-22	8619.26
		2022-23	13179.21
Total	26264.12	Total	65104.61
Mean Value	8754.70	Mean value	10850.76

Source: Computed from the Telangana Budget Reports 2015-2023

Table 3 exhibits the trend in grand in aid by central government to the Telangana State during pre and post GST period. The study found that, grand in aid of the State was Rs 7118.10 Cr in 2014-15 which increased to Rs 9,394.12 Cr in 2015-16 and further increased to Rs 9751.90 Cr in 2016-17. During post GST period, in first four years State has received continuously higher wise higher grant in aid i.e. Rs 8,058.8 Cr in 2017-18, Rs 8177.79 Cr in 2018-19, Rs 11598.42 Cr in 2019-20 and thereafter reported historical high of Rs 15471.13 Cr for spending health purpose affected by the covid disease. Thereafter, grant in aid significantly

melt down to Rs 8619.23 Cr and again increased to Rs 13,179.21 Cr in 2022-23. The total grant in aid of the State was Rs 26,264.12 Cr with mean value of Rs 8,754.70 Cr during pre-GST period which reported Rs 65,104.61 Cr with mean value of Rs 10,850.76 Cr during post GST period.

Hypothesis Testing

After understanding the Telangana State Grant in Aid, an effort is made here to understand the impact of GST on the State Grant in Aid, the following **null hypothesis** formulated in consonance of the study objectives and tested.

Ho_{1.4}: There is insignificant impact of GST on the State Grant in Aid.

3.4A t-Test: Two-Sample Assuming Unequal Variances		
	Variable 1	Variable 2
Mean	8754.706	10850.76833
Variance	2040874	9449579.065
Observations	3	6
Hypothesized Mean Difference	0	
df	7	
t Stat	-1.39576	
P(T<=t) one-tail	0.102731	
t Critical one-tail	1.894579	
P(T<=t) two-tail	0.205461	
t Critical two-tail	2.364624	

In the present study, the out of t-test Two-Sample Assuming Unequal Variances recommends to accept the null hypothesis because the *p*-value (0.205) is significantly higher than the level of significance (0.05). Contextually, the study witnessed that, accept the null hypothesis that, there is insignificant impact of GST on the State grant in aid and reject alternative hypothesis of there is significant impact of GST on the grant in aid. Finally, the study proved no effect of GST on the State grant in aid

Telangana State Revenue Receipts during Pre and Post GST Period: Revenue receipts are regular and recurring

income generates by the governments from the different sources such as tax revenue and non-tax revenue. In Telangana State Revenue receipts comprises of four major sources such as a) State share in central taxes, b) Tax revenue c) Non-Tax revenue and d) Grand in Aid. In the present study these four sources of income are analyzed in the previous tables. Besides, the study analyzed trend in Total Revenue Receipts and effect of GST on the total Revenue receipts during post GST period. In general, increasing trend in revenue receipts indicates growth in tax collection, rise in economic activities and income levels of public.

Table 4: Telangana State Total Revenue Receipts During Pre and Post GST Period

Year	Pre –Gst Period (2015-2017rs (Cr)	Year	Post-Gst Period (2018-2023) (Rs Cr)
2014-15	51041.79	2017-18	88824.09
2015-16	76133.83	2018-19	101420.16
2016-17	82817.96	2019-20	102543.82
		2020-21	100914.36
		2021-22	127468.59
		2022-23	159350.29
Total	209993.6	Total	680521.31
Mean Value	69997.86	Mean value	113420.21

Source: Computed from the Telangana Budget Reports 2015-2023 and RBI Report

Table 4.5 exhibits the trend in Total Revenue Receipts of Telangana State during pre and post GST period. The study found that, total revenue receipts of the State was Rs 51,041.79 Cr in 2014-15 which rise to Rs 76133.83 Cr in 2015-16 and further increased to Rs 82,817.96 Cr in 2016-17.

During post GST period, in first four years State has received continuously higher wise higher revenue receipts i.e. Rs 88,824.09 Cr in 2017-18, Rs 1,01,420 Cr in 2018-19, Rs 1,02,543.82 Cr in 2019-20 and thereafter decreased marginally to Rs 1,00,914.36 Cr due to by the covid disease. Thereafter, revenue receipts significantly rose to Rs 1,27,468. 59 Cr and again reached highest of Rs 1,59,350.29

Cr in 2022-23. The total revenue receipts of the State was Rs 2,09,993.60 Cr with mean value of Rs 69,997.86 Cr during pre GST period which reported Rs 6,80,521.31 Cr with mean value of Rs 1,13,420.21 Cr during post GST period.

Hypothesis Testing

After understanding the Telangana state Total Revenue Receipts, an effort is made here to understand the impact of GST from the state Total Revenue Receipts, the following null hypothesis formulated in consonance of the study objectives and tested.

H_{01.5}: There is insignificant impact of GST on the state Total Revenue Receipts

A t-Test: Two-Sample Assuming Unequal Variances		
	<i>Variable 1</i>	<i>Variable 2</i>
Mean	69997.86	113420.2
Variance	280668753.2	666118338.4
Observations	3	6
Hypothesized Mean Difference	0	
df	6	
t Stat	-3.03589	
P(T<=t) one-tail	0.011462	
t Critical one-tail	1.94318	
P(T<=t) two-tail	0.022924	
t Critical two-tail	2.446912	

In the present study, the out of t-test Two-Sample Assuming Unequal Variances recommends to reject the null hypothesis because the *p*-value (0.022) is significantly lower than the level of significance (0.05). Contextually, the study witnessed that, reject the null hypothesis that, there is insignificant impact of GST on the State total Revenue Receipts and accepts alternative hypothesis of there is significant impact of GST on the State Total Revenue Receipts Finally, the study proved significant effect of GST on the State total revenue receipts of Telangana State during post GST period.

Telangana State Capital Receipts during Pre And Post GST Period: Capital receipts are irregular and non-

recurring income generates by the governments from the different sources such open market loans, floating debt, loans from GOI, other loans, deposit transactions, loans and advances, contingency funds and inter-state settlement. Government uses these funds to finance its long-term development needs. In the present study trend in total capital receipts of Telangana is analyzed and effect of GST on the total capita receipts during post GST period is examined and presented below tables. Uptrend in a state's capital receipts indicates that the state is deploying more loans and other resources to finance its long-term developmental needs

Table 5: Telangana State Total Capital Receipts During Pre And Post Gst Period

Year	Pre –Gst Period (2015-2017 Rs (Cr))	Year	Post-Gst Period (2018-2023) (Rs Cr)
2014-15	11431.2	2017-18	54554.4
2015-16	21683.29	2018-19	55561.31
2016-17	50832.58	2019-20	75964.72
		2020-21	58316.35
		2021-22	55598.7
		2022-23	45143.4
Total	83947.07	Total	345138.88
Mean Value	27982.36	Mean value	57523.14

Source: Computed from the Telangana Budget Reports 2015-2023

Table 5 exhibits the trend in Total Capital Receipts of Telangana State during pre and post GST period. The study found that, total capital receipts of the State was Rs 11,431.20 Cr in 2014-15 which rise to Rs 21,683.29 Cr in 2015-16 and further two-fold increase was observed to Rs 50,832.58 Cr in 2016-17. During post GST period, in first three years total capital receipts continuously reported uptrend like Rs 54,554.40 Cr in 2017-18, Rs 55,561.31 Cr in 2018-19 and reached to highest of Rs 75,964Cr in 2019-20 and thereafter drop significantly to Rs 58,316.35 Cr due to by the covid disease. Thereafter, capital receipts decreased

to Rs 55,598.70 Cr and again drop to Rs 45,143.40 Cr in 2022-23. The total capital receipts of the State was Rs 83,947.07 Cr with mean value of Rs 27,982.36 Cr during pre GST period which reported Rs 3,45,138.80 Cr with mean value of Rs 57,523.14 Cr during post GST period.

Hypothesis Testing

After understanding the Telangana state Capital Receipts, an effort is made here to understand the impact of GST on the state Capital Receipts, the following null hypothesis formulated in consonance of the study objectives and tested.

Ho1.6: There is insignificant impact of GST on the state Capital Receipts

t-Test: Two-Sample Assuming Unequal Variances		
	<i>Variable 1</i>	<i>Variable 2</i>
Mean	27982.35553	57523.14667
Variance	417875833.9	102068936.2
Observations	3	6
Hypothesized Mean Difference	0	
df	3	
t Stat	-2.362859303	
P(T<=t) one-tail	0.049571371	
t Critical one-tail	2.353363435	
P(T<=t) two-tail	0.099142742	
t Critical two-tail	3.182446305	

In the present study, the out of t-test Two-Sample Assuming Unequal Variances recommends to accept the null hypothesis because the *p*-value (0.099) is significantly higher than the level of significance (0.05). Contextually, the study witnessed that, accept the null hypothesis that, there is insignificant impact of GST on the State total capital Receipts and reject alternative hypothesis of there is significant impact of GST on the State Total Capital Receipts Finally, the study evidence for insignificant effect of GST on the total capital receipts of Telangana State during post GST period.

Telangana State Total Receipts during Pre And Post GST Period

The total receipts is sum of total revenue receipts and total capital receipts. Revenue receipts are regular and recurring

income generates by the governments from the different sources such as tax revenue and non-tax revenue. In Telangana State Revenue receipts comprises of four major sources such as a) State share in central taxes, b) Tax revenue c) Non-Tax revenue and d) Grand in Aid. Capital receipts are irregular and non- recurring income generates by the governments from the different sources such open market loans, floating debt, loans from GOI, other loans, deposit transactions, loans and advances, contingency funds and inter-state settlement. Government uses these funds to finance its long-term development needs. In the present study trend in total receipts of Telangana is analyzed and effect of GST on the receipts during post GST period is examined and presented below tables. Uptrend in a state's receipts indicates that positive sign and vice versa.

Table 6: Telangana State Total Receipts during Pre and Post GST Period

Year	Pre –Gst Period (2015-2017) (Rs (Cr)	Year	Post-Gst Period (2018-2023) (Rs Cr)
2014-15	62472.99	2017-18	143378.49
2015-16	97817.12	2018-19	156981.47
2016-17	133650.5	2019-20	178508.54
		2020-21	159230.71
		2021-22	183067.29
		2022-23	204493.69
Total	293940.6	Total	1025660.19
Mean Value	97980.22	Mean value	170943.36

Source: Computed from the Telangana Budget Reports 2015-2023

Table 6 exhibits the trend in Total Receipts of Telangana State during pre and post GST period. The study found that, total receipts of the State was Rs 62,472.99 Cr in 2014-15 which rise to Rs 97,817.12 Cr in 2015-16 and further increased to Rs 1,33,650.50 Cr in 2016-17. During post GST period, in first three years total receipts continuously reported uptrend such as Rs 1,43,378.49 Cr in 2017-18, Rs 1,56,981.47 Cr in 2018-19 and Rs 1,78,508.54 Cr in 2019-20 and thereafter drop significantly to Rs 1,59,230.71 Cr due to by the covid disease. Thereafter, receipts restored to earlier level to Rs 1,83,067.29 Cr and reached to highest of

Rs 2,04,493.69Cr in 2022-23. The total receipts of the State was Rs 2,93,940.60 Cr with mean value of Rs 97,980.22 Cr during pre GST period which reported Rs 10,25,660.19 Cr with mean value of Rs 1,70,943.36 Cr during post GST period.

Hypothesis Testing

After understanding the Telangana state Total Receipts, an effort is made here to understand the impact of GST on the state Total Receipts the following **null hypothesis** formulated in consonance of the study objectives and tested.

Ho1.7: There is insignificant impact of GST on the state Total Receipts

t-Test: Two-Sample Assuming Unequal Variances		
	<i>Variable 1</i>	<i>Variable 2</i>
Mean	97980.21653	170943.365
Variance	1266580710	484357774.1
Observations	3	6
Hypothesized Mean Difference	0	
df	3	

t Stat	-3.253525169	
P(T<=t) one-tail	0.02368148	
t Critical one-tail	2.353363435	
P(T<=t) two-tail	0.042362961	
t Critical two-tail	3.182446305	

In the present study, the out of t-test Two-Sample Assuming Unequal Variances recommends to reject the null hypothesis because the p -value (0.042) is lower than the level of significance (0.05).

Contextually, the study witnessed that, reject the null hypothesis that, there is insignificant impact of GST on the State total Receipts and accept alternative hypothesis of there is significant impact of GST on the State Total receipts of Telangana State during post GST period.

Findings of the Study

1. The study witnessed that, State Tax Revenue was rose to Rs 75610.35 Cr during post GST period which was Rs 39223.61 Cr during pre-GST period. Consequently, T-test result proved significant effect of GST on the State Tax Revenue during post GST period.
2. The study analyzed the state non-tax revenue during pre- post GST period and revealed that state non-tax revenue was marginally dropt to average of Rs 9950.96 Cr during post GST period which was Rs 10,214.30 Cr during pre-GST period. Consequently, T-test result proved insignificant effect of GST on the State non-Tax Revenue during post GST period.
3. The study analyzed the state grant in Aid during pre and post GST period and revealed that state grant in aid was substantially rose to average of Rs 10850.76 Cr during post GST period which was Rs 8754.70 Cr during pre-GST period. Consequently, T-test result proved insignificant effect of GST on the State grant in aid during post GST period.
4. The study assessed the State total revenue receipts during pre and post GST period and revealed that total revenue receipts was substantially rose to average of Rs 1,13,420.21 Cr during post GST period from Rs 8754.70 Cr during pre-GST period. The T-test result proved P value of 0.0222 which is lower than the standard value of 0.05 as result in significant effect of GST on the State grant in aid during post GST period.
5. The study assessed the State total capital receipts during pre and post GST period and found that total capital receipts was substantially rose by double rate to average of Rs 57,523.14 Cr during post GST period from Rs 27,980.36 Cr during pre-GST period. The T-test result proved P value of 0.099 which is higher than the standard value of 0.05 as result in insignificant effect of GST on the State total capital receipts during post GST period.
6. The study assessed the State total receipts during pre and post GST period and found that total receipts was substantially increased to average of Rs 1,70,943.36 Cr during post GST period from Rs 97,980.22 Cr during pre-GST period. The T-test result proved P value of 0.042 which is lower than the standard value of 0.05 as result in significant effect of GST on the State total receipts during post GST period.

Conclusion

Goods and Service Tax is long standing tax reforms in India. In India, GST was introduced after three years when Telangana separated. GST is one of drastic reform in direct tax system in India which almost six years by the end of 2023. Therefore, present study analyzed the impact of GST on the revenue of the newly emerged states in general and Telangana State in particular for the period of 2015-2023 i.e. three years pre and six years post GST period. The selected parameters are State tax revenue, non-tax revenue, Grant in Aid, total revenue receipts, capital receipts, total receipts. The study used t-test to measure the significance of the impact. The study found that significant impact of GST on tax revenue, total revenue receipts and total receipts, on the other hand, insignificant impact on the non-tax revenue, grant in and capital receipts.

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