

EFFECT OF GOODS AND SERVICE TAX ON AGGREGATE COMMERCIAL TAX REVENUE OF KERALA STATE

Vineethan.T¹ & Dr. Sravana.K²

1. Assistant Professor, Post Graduate & Research Department of Commerce, Govt. College Madappally, Vatakara, Kozhikode Dist, Kerala-673102

2. Assistant Professor, Department of Commerce, Govt. Arts & Science College, Kozhikode, Kozhikode Dist, Kerala-673018

Abstract

Goods and Service Tax is a consumption-based taxation and hence, it would mainly benefit consumer states like Kerala. The present study intends to examine the effect of GST on aggregate commercial tax revenue of Kerala State. It is conducted in a descriptive manner and the entire data used are of secondary nature. For facilitating comparing, the collected data are divided into two periods, namely, pre-GST period and post GST period. The tools such as monthly growth rate, quarterly growth rate and annual growth rates are used for analysis. Tables and radar charts are used for ensuring clarity to the data. Paired sample t-test is also used to test whether GST has an effect on the aggregate commercial tax revenue of Kerala. The study finds that GST has a positive effect on the aggregate commercial tax revenue of Kerala. It concludes that GST would have a better effect on the revenue of Kerala State in the years to come.

Key words: Goods and Service Tax, Destination-based tax, Single taxable event, Dual GST Model, Aggregate Commercial Tax Revenue.

1. Introduction

Goods and Service Tax (GST) is being considered as the principal indirect tax restructuring in independent India. It is a comprehensive and destination based tax which is levied on every point of value addition uniformly across the country. During the earlier VAT regime, even though tax was levied on every point of value addition, the rate of tax was not uniform throughout the country. In other words, different States and Union Territories levied VAT at different rates. Further, under VAT regime, there were different types of taxes such as luxury tax, entertainment tax, central excise duty, central sales tax, purchase tax, entry tax, tax on lotteries, etc. in addition to VAT. But with the implementation of GST, the aforesaid multiple taxes are subsumed and a single GST is levied in uniform rate across the nation. Thus, GST has brought the Indian indirect taxation frame work under its distinctive philosophy of “One Nation - One Tax - One Market.” As Kerala is a demand destination for any produce, GST – a destination based tax – would, naturally, benefit Kerala State considerably in terms of total tax revenue. This study is an attempt to examine the effect of GST on aggregate commercial tax revenue of Kerala.

1.1 Prominent Features of GST Model Implemented in India

GST is a destination based taxation and not origin-based taxation. It is a single tax in the entire supply chain of goods and services. “Supply of Goods and Services” is the single taxable event in GST. The GST model adopted by India is dual GST, where both Union and State Governments simultaneously levy tax. In case of inter-state supply of goods and

services, an integrated GST (IGST) would be levied and collected by Union Government. The Union Government and State Governments shall share the IGST as per provisions of the Act of Parliament. Import of goods and services would be treated as inter-state supplies. Therefore, IGST would be charged in addition to the applicable customs duties. The rates of GST would be modified by the Union Government on the recommendations of the GST Council. A cess would be levied on “demerit goods” to raise resources for providing compensation to States as States may lose revenue due to the implementation of GST. GST would not apply on alcohol for human consumption. GST on five specified petroleum products (petrol, diesel, crude, ATF and Natural gas) would be applicable with effect from the date recommended by the GST Council. The Union Government would have the power to levy Central Excise Duty on tobacco and tobacco products, in addition to GST. Export would be treated as zero-rated supplies.

1.2 Components of Commercial Tax Revenue of Kerala

Following are the important components of Commercial tax revenues of Kerala State:

1. Goods and Service Tax
2. Kerala Value Added Tax
3. Kerala General Sales Tax
4. Kerala Agricultural Income Tax
5. Kerala Tax on Money Lenders
6. Kerala Tax on Luxuries
7. Kerala Tax on Paper Lotteries
8. Kerala Surcharge on Taxes

2. Literature Review

Pradeep Chaurasia, Shweta Singh and Prakash Kumar Sen (2016), after discussing the prospects of GST, have concluded that the implementation of Goods and Service Tax will enhance the GDP of India more than two percent.

Banerjee, S., Banerjee, M., and Das, K., K., (2016), have said that the introduction of GST will be beneficial to our nation in many ways. They opined that GST will ensure the effective utilisation of resources and thereby make the system of taxation as environment sociable. Again, GST will offer a transparent administration of tax and growth of the country.

Khurana, A., and Sharma, A., (2016), have discussed the various aspects of VAT and GST in their article. In the second part of the article, they have analysed the various advantages of GST. They listed the important points such as GST would avoid cascading effect of tax, increase Gross Domestic Products, reduce the multiplicity of indirect taxes, etc.

Sherawat, M., and Dhanda, U., (2015), have opined that Goods and Service Tax is the principal tax restructuring in India after independence. They stated that the GST will unite all the existing indirect taxes in India. The article has discussed the benefits as well as the challenges of GST. They said that, as GST is a destination-based taxation, measures must be taken to ensure that the tax is received by the recipient State.

Cnossen., and Sijbren (2013) opined that the difficulties of existing indirect taxation system of India are the main obstacles in the economic growth of the country. They state that with the successful implementation of GST, these obstacles would be removed to a greater extent.

Anshu Jain (2013) stated that GST is a single tax charged on consumption of goods and services. Even though GST is levied at every value addition stage of supply chain, it is basically a charge on final consumer. This is made possible through the mechanism of input tax credit. The author opined that as India is a democratic country, the government has to follow the principle of welfare state while drafting policies of implementation of GST.

Subrahmanya Bhat, K.M., and Bhanu Murthy, (2012) have concluded that even though a lot of tasks in respect of deciding GST rates, preparing administrative mechanism for levy and collection of tax, input tax credit, IT infrastructure, etc. are still to be done, GST will definitely augment the revenue of the country, if it is implemented successfully.

Prakash, M. Herekar (2012) discusses the impact of various ingredients of GST on economic development of the nation. After analysing the secondary data, he concludes that the successful implementation of GST would result a gain in GDP and exports. He also emphasises on the need for resolving various issues such as deciding GST rates, drafting of SGST legislation, drafting of CGST legislation, setting up of IT infrastructure, etc. before the implementation of GST.

Beri., and Yogita (2011) has stated that GST will definitely provide more relief to the business people through a more comprehensive input tax set-off. The chain of set-offs will widen the tax base which may lead to minimise the tax burden of the business people on an average.

Vasanthgopal, R., (2011), has opined that the implementation of GST is a key transformation in the indirect tax structure of India. In his article, he discussed the various multifarious benefits of GST. He stated that GST will minimise the multiplicity of indirect taxes. It helps to widen the tax base and thereby promote the revenue generation. Further, GST will improve tax compliance also. He stated that GST has its own limitations also. These include difficulties in respect of constitutional amendments, fixation of tax rates, distribution of compensation, redressal of disputes, etc. The author concluded that, proper implementation of GST will give a new momentum for the economic progress of the nation.

Abhishek A. Rasthogi (2010) explained the important reasons for implementing GST in India. He discussed about various GST models, different taxes which would be subsumed into GST, various issues on which attention is to be made, etc. in his book “Guide to Goods and Service Tax.”

3. Relevance of the Study

Kerala is a consumer state. It is a place where there is good demand for all types of commodities produced everywhere in the world. GST, on the other hand, is a consumption-based taxation and avoids multiplicity as well as cascading effect of taxes. This, in turn reduces the prices of commodities which the end consumers have to pay considerably. As a result, the purchasing power of consumers increases. These key factors (i.e, Kerala is a Consumer State, GST is a consumption based taxation and GST increases the purchasing power of consumers) would bring a positive effect on the economy of Kerala. In this scenario, the study about the effect of GST on the aggregate commercial tax revenue of Kerala is relevant.

4. Research Problem

GST is a major restructuring in the area of indirect taxation in our country. The implementation of GST divides India’s fiscal era into two parts, namely, pre-GST era and

post-GST era. Since GST is a consumption-based taxation, people from different corners were opined that the new reform will benefit the consumer - state like Kerala. Even though the period elapsed after implementing GST is not sufficient to examine its impact, no doubt, the new transformation would make some reactions in the total tax revenue of the governments. Before rolling out GST in the country, Dr. T. M. Thomas Issac, the Finance Minister of Kerala, opined that GST will benefit Kerala with a minimum of 20% increase in the tax revenue of the State. The present study is undertaken to find answers to the following question.

What is the immediate effect of GST on the aggregate commercial tax revenue of Kerala State ?

5. Objectives

1. To examine the effect of Goods and Service Tax on the aggregate commercial tax revenue of Kerala State.
2. To compare the Commercial Tax Revenue of Kerala State before and after the implementation of Goods and Service Tax.

6. Hypothesis

H_0 : Goods and Service Tax has no effect on the aggregate commercial tax revenue of Kerala State.

7. Research Methodology

Descriptive method is followed in this research article.

7.1 Sources of Data

For preparing the research paper only secondary are used. They are collected mainly from the website of GST Department of Kerala State. Information collected from books, journals, news papers, research theses, etc. are also utilised for this study.

7.2 Period of Data

For preparing the paper, the relevant data for the period from 1st April 2015 to 31st March 2019 are collected. So as to facilitate comparison, the whole period in respect of which data are collected, is divided into two, namely; pre-GST period (1st April 2015 to 30th June 2017) and post GST period (1st July 2017 to 31st March 2019).

7.3 Statistical Tools

For the analysis of data, statistical tools such as monthly growth rate, quarterly growth rate, and annual growth rate are used. For proper clarification of data, tables and radar charts are used. Further, for testing the hypothesis framed, student's t-test (paired sample) is used.

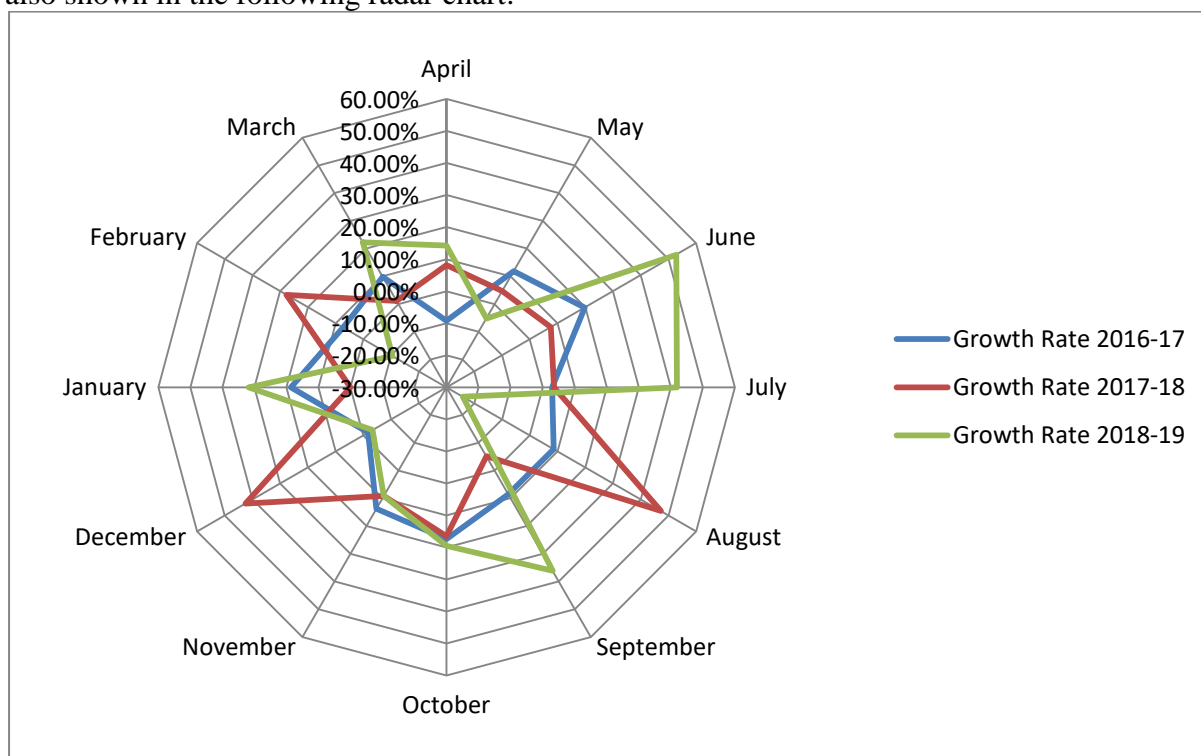
8. Data Analysis and Discussion:

8.1 Monthly Growth Rate in Aggregate Commercial Tax Revenue of Kerala

Month	Aggregate Commercial Tax Revenue (Amount in Crore)				Growth Rate		
	2015-16	2016-17	2017-18	2018-19	2016-17	2017-18	2018-19
April	1933.26	1754.96	1898.16	2168.59	-9.22 %	8.16 %	14.25 %
May	2486.20	2781.41	2911.35	2760.66	11.87 %	4.67 %	-5.18 %
June	2367.43	2835.98	3051.09	4661.41	19.79 %	7.59 %	52.78 %
July	2518.96	2593.21	2685.61	3810.71	2.95 %	3.56 %	41.89 %
August	2487.67	2701.95	3979.30	3017.24	8.61 %	47.28 %	-24.18 %
September	2800.50	3038.97	2881.94	3925.53	8.52 %	-5.17 %	36.21 %
October	2579.75	3028.50	3528.53	4217.36	17.40 %	16.51 %	19.52 %
November	2426.09	2760.09	3014.00	3290.81	13.77 %	9.20 %	9.18 %

December	2578.76	2535.28	3613.51	3494.11	-1.69 %	42.53 %	-3.30 %
January	2482.91	2944.11	2946.29	3881.99	18.57 %	0.07 %	31.76 %
February	2616.71	2809.36	3589.50	3214.52	7.36 %	27.77 %	-10.45 %
March	3873.83	4254.54	4304.41	5264.25	9.83 %	1.17 %	22.30 %
Total	31152.07	34038.36	38403.69	43707.18	9.27 %	12.82 %	13.81 %

Table No.1 shows that the monthly growth in aggregate commercial tax revenue of Kerala State is very high in June and July of 2018. It is 52.78% and 41.89% respectively for the aforesaid periods. In the month of June 2016 and 2017 also, there were satisfactory growth rates of 19.79% and 7.59% respectively. But in the month of August of 2018, the growth rate has been declined to a very high minus figure of -24.18%. This may be due to a higher growth rate in the same month of previous year which was 47.28%. Even though there are negative growth rates in three months during the first financial year of the implementation of GST, the overall annual growth rate in 2018-19 is satisfactory. The monthly growth rate of aggregate commercial tax revenue of Kerala State for the period from 2016-17 to 2018-19 is also shown in the following radar chart:



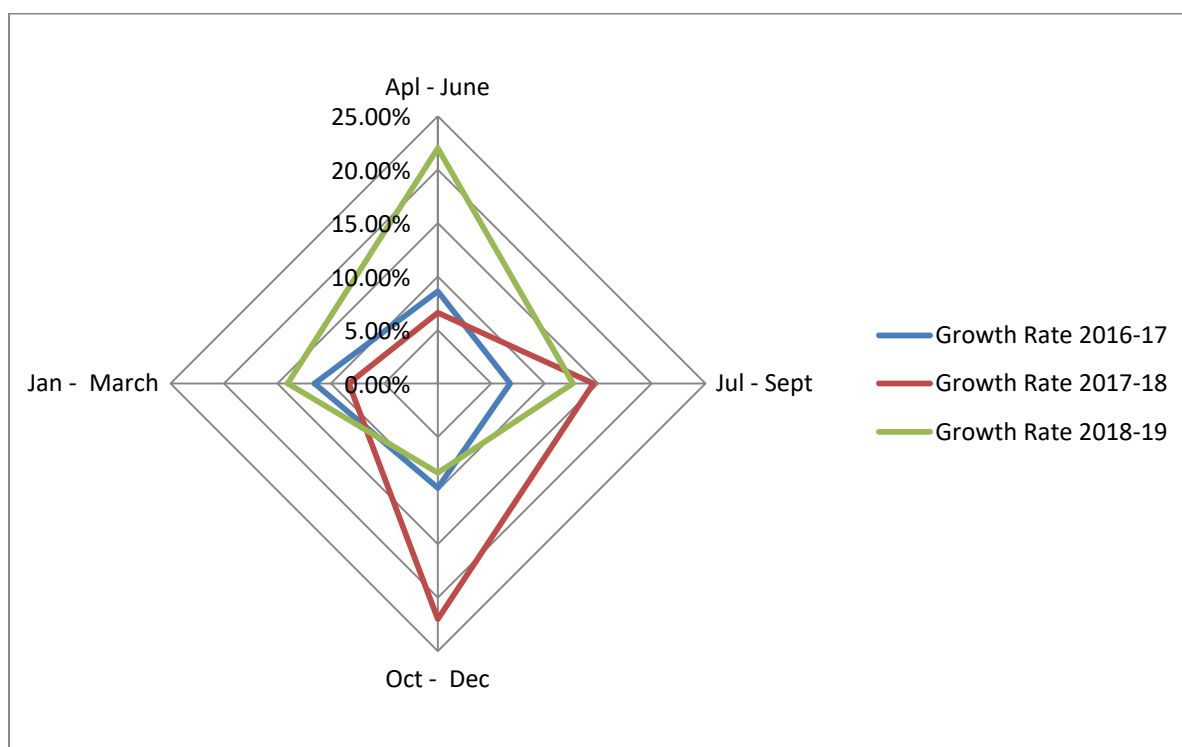
Radar Chart showing monthly growth rate in the aggregate commercial tax revenue of Kerala from 2016-17 to 2018-19

8.2 Quarterly Growth Rate in Aggregate Commercial Tax Revenue of Kerala

Quarter Period	Aggregate Commercial Tax Revenue (Amount in Crore)				Growth Rate		
	2015-16	2016-17	2017-18	2018-19	2016-17	2017-18	2018-19
April to June	6786.89	7372.35	7860.60	9590.66	8.63 %	6.62 %	22.01 %
July to September	7807.13	8334.13	9546.85	10753.48	6.75 %	14.55 %	12.64 %

October to December	7584.60	8323.87	10156.04	11002.28	9.75 %	22.01 %	8.33 %
January to March	8973.45	10008.01	10840.20	12360.76	11.53 %	8.32 %	14.03 %
Total	31152.07	34038.36	38403.69	43707.18	9.27	12.82	13.81

Table No.2 shows that the quarterly growth in the aggregate commercial tax revenue of Kerala is maximum (i.e; 22.01 %) in the third quarter of 2017-18 and first quarter of 2018-19. Even though there are very low growth rates in fourth quarter of 2017-18 (8.32%) and in third quarter of 2018-19 (8.33%), the overall growth rate during post GST period is satisfactory. The quarterly growth rate in aggregate commercial tax revenue of Kerala State for the period from 2016-17 to 2018-19 is also shown in the following radar chart:



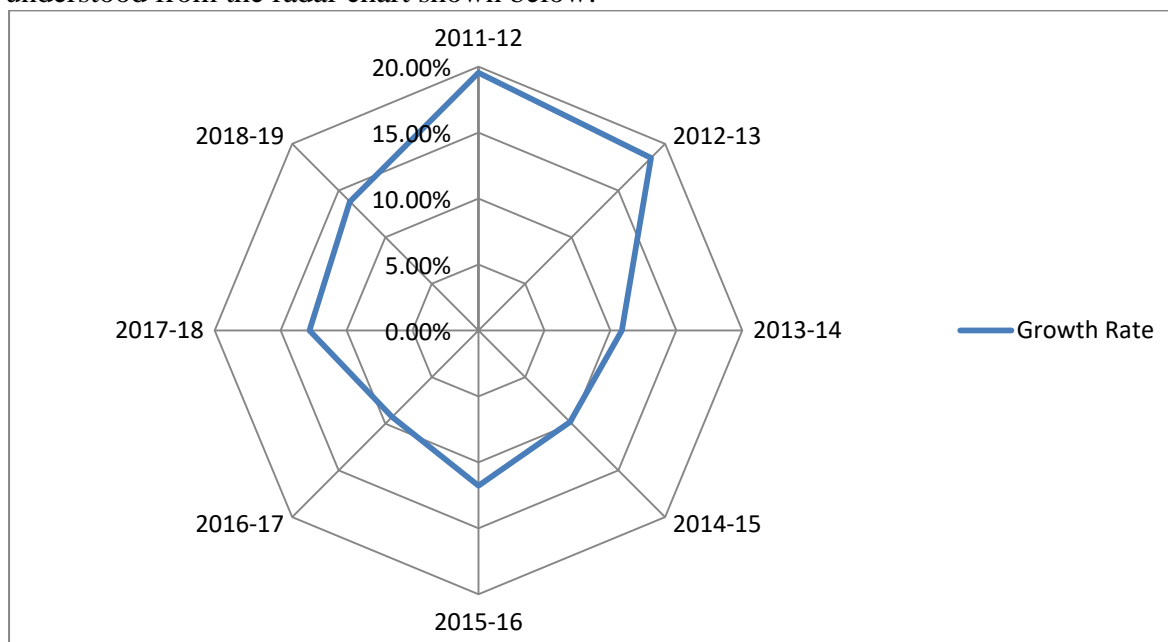
Radar Chart showing quarterly growth rate in the aggregate commercial tax revenue of Kerala from 2016-17 to 2018-19

8.3 Annual Growth Rate in Aggregate Commercial Tax Revenue of Kerala

Year	Aggregate Commercial Tax Revenue (Amount in Crore)	Change in Revenue (Amount in Crore)	Growth Rate
2010-11	16155.93		
2011-12	19310.54	3154.61	19.53 %
2012-13	22885.83	3575.29	18.51 %
2013-14	25376.25	2490.42	10.88 %
2014-15	27870.89	2494.64	09.83 %
2015-16	31152.07	3281.18	11.77 %
2016-17	34038.36	2886.29	09.27 %
2017-18	38403.69	4365.33	12.82 %

2018-19	43707.18	5303.49	13.81 %
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Table 3 shows a satisfactory growth in the annual aggregate commercial tax revenue of Kerala State in the post-GST period. The growth rates are 12.82% and 13.81% respectively in 2017-18 and 2018-19. It was only 9.83%, 11.77% and 9.27% respectively in 2014-15, 2015-16 and 2016-17. The variation in annual growth rate during pre and post GST periods can be understood from the radar chart shown below:



Radar Chart showing annual growth rate in the aggregate commercial tax revenue of Kerala from 2011-12 to 2018-19

8.4 Testing of Hypothesis

For testing the hypothesis that the GST has no effect on the Aggregate commercial tax revenue of Kerala State, data in respect of aggregate commercial tax revenue for a period of 12 months immediately preceding and succeeding the implementation GST are used. This is done with the help of Student's t-test.

Comparison of Monthly Aggregate Commercial Tax Revenue of Kerala for a period of 12 months before and after implementation of GST			
Month	Aggregate Commercial Tax Revenue (Amount in Crore)		
	Before GST (i.e; 2016-17)	After GST (i.e; 2017-18)	Difference (after minus before)
July	2593.21	2685.61	+ 92.40
August	2701.95	3979.30	+ 1277.35
September	3038.97	2881.94	- 157.03
October	3028.50	3528.53	+ 500.03
November	2760.09	3014.00	+ 253.91
December	2535.28	3613.51	+ 1078.23
January	2944.11	2946.29	+ 2.18
February	2809.36	3589.50	+ 780.14
March	4254.54	4304.41	+ 49.87
April	1898.16	2168.59	+ 270.43
May	2911.35	2760.66	- 150.69

June	3051.09	4661.41	+ 1610.32
Total	34526.61	40133.75	+ 5607.14

Difference Scores Calculations:

Mean: 467.26

$\mu = 0$

$S^2 = SS/df = 3821978.4/(12-1) = 347452.58$

$S^2_M = S^2/N = 347452.58/12 = 28954.38$

$S_M = \sqrt{S^2_M} = \sqrt{28954.38} = 170.16$

T-value Calculation

$t = (M - \mu)/S_M = (467.26 - 0)/170.16 = 2.75$

Significance Level: 0.05

The value of t is 2.746016. The value of p is .00951. The result is significant at $p < .05$.

9. Conclusion

Since GST is a consumption based tax, it would bring enormous benefits to a consumer state like Kerala. The study of the effect of GST on aggregate commercial tax revenue of Kerala State, revealed a higher or lower growth rates in the alternative periods. However the growth rate, in general, is comparatively satisfactory during post GST period. In India, GST is at the early stage of its implementation. The real benefits of GST have yet to be achieved by the country. There is no doubt; GST mechanism will fetch transparency in the indirect tax collection which will benefit Kerala greatly in the long run.

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