

# IMPACT OF GST ON INDIAN AGRICULTURE IN AGRICULTURE MARKETING

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## ABSTRACT

Goods and Services Tax (GST) is an indirect tax which was passed on 3 august 2016 and commenced on 1 July 2017 in India. GST was already implemented in 160 countries. India adopted concurrent dual GST model where taxes are collected in the form of State Goods and service tax (SGST) and Central Goods and service tax (CGST). Goods and Services Tax is a single and a broad based tax levied on goods and services consumed in an economy. Agricultural sector has been the root of Indian economy and it contributes to around 17.4 per cent to GDP. About 52 per cent of the total rural livelihood depends on this sector as their primary means of livelihood, so it is important to study the impact of GST on the Agriculture sector. GST will have both positive and negative effect on Agriculture. GST is expected to create a business friendly environment, as price level and inflation rate go down. The researcher used satisfied sampling method to collect the response from the respondent. They used 100 responding for the study. Good and Service tax has single tax structure as it leads to unified market at national level for goods and services. The implementation of GST is expected to bring uniformity across states and central which would make tax support policy of a particular commodity effective. Good and Services Tax (GST) was predicted to have a simple harmonized tax structure with operational ease leading to a single unified market at national level for goods and services while ensuring that there is no negative revenue impact on the states.

**Keywords:** GST – Indian agriculture – agriculture commodities – Different taxes – Agriculture marketing - Indian economy

## INTRODUCTION

Agriculture is one of the most critical sectors of the Indian economy. Growth and development of agriculture and allied sector directly affects well-being of people at large, rural prosperity and employment and forms an important resource base for a number of agro-based industries and agro-services. The agriculture sector in India has undergone significant structural changes in the form of decrease in share of GDP from 30 percent in 1990-91 to 17.4 in 2015-16 (Annual Report, 2015-16 MOA & FW) indicating a shift from the traditional agrarian economy towards a service dominated one. However, this decrease in agriculture's

contribution to GDP has not been accompanied by a matching reduction in the share of agriculture in employment. About 52 percent of the total workforce is still employed by the farm sector which makes more than half of the Indian population dependent on agriculture for sustenance (NSS Round). Value addition in agriculture, thus holds the indirect taxes (by central government, state government and custom duties) will be subsumed into a common single GST. The proposed GST is expected to streamline the indirect tax regime. It contains all indirect taxes levied on goods, including central and state-level taxes. Act as an improvement on the VAT system, a uniform GST is expected to create a seamless national market. GST seems to be more comprehensive, compliable, simple, harmonized and development oriented tax system. Main aim of GST is “one nation, one tax”. From the consumer point of view, the biggest advantage would be in terms of a reduction in the overall tax burden on goods, which is currently estimated to be around 25-30 per cent (Central Board of Excise and Custom). Introduction of GST would also make Indian products competitive in the domestic and international markets. After GST, when a single taxation procedure will roll out we can say that inflation will come down. We can expect that the rate of taxation on necessary materials like agriculture product, medicines will be low or must be exempted. It will spread the positive energy to the people of the nation.

## STATEMENT OF PROBLEM

The concept of Goods and Service Tax (GST) is one of the biggest revolutions in decades around the world. But it seems that India is taking very slow steps to meet target. This research intends to focus on understanding concept of goods and service tax and its impact on Indian agriculture.

GST, when implemented, will bring serious consequence to the food industry. The GST exercise taxation on agricultural goods including basic food products for human sustainability such as cereals, fish, meat, poultry and dairy products, which is exempted from taxation by the government of India currently. Thereby on the implementation of GST would lead to doubling the tax burden on food commodities and increasing the price of the agricultural products. This effect can only be reduced if and only the basic necessitate products are pinned under exception list.

## OBJECTIVES

- To know about the Goods and Service Tax benefits.
- To study the impact of Goods and Service Tax in the Agricultural Sector in India.

- To have an insight of the problems and prospects related to GST and Indian agriculture.
- To analyse the difference in tax percentage in GST and earlier taxing system in Agricultural Service and Goods.
- To observe the merits and demerits of the Goods and Service Tax in the Agricultural Sector in India.

## REVIEWS OF LITERATURE

- Shaik (2015) said that GST acts as helper in the collective gain for industry, trade, agriculture and common consumers as well as for the Central Government and the State Government and thus ultimately helpful in development of Indian economy. It was further reported that GST will lead to provide commercial benefits, which were remained untouched by the VAT system.
- Defmacro software Pvt. Ltd defines that GST is essential to improve the transparency, reliability, timeline of supply chain mechanism. A better supply chain mechanism would ensure a reduction in wastage and cost for the farmers/retailers. GST would also help in reducing the cost of heavy machinery required for producing agricultural commodities. Under the model GST law, dairy farming, poultry farming, and stock breeding are kept out of the definition of agriculture.
- Dr. Shakir Shaik, Dr. S.A. Sameera, Mr. Sk.C. Firoz in their paper on Does Goods and Services Tax (GST) Leads to Indian Economic Development? Stated in conclusion that GST in the Indian framework will lead to commercial benefits which were untouched by the VAT system and would essentially lead to economic development. Hence GST may usher in the possibility of a collective gain for industry, trade, agriculture and common consumers as well as for the Central Government and the State Government.
- Ehtisham Ahmed and Satya Poddar (2009) in their study on “Goods and Service Tax Reforms and Intergovernmental Consideration in India” found that GST introduction will provide simpler and transparent tax system with increase in output and productivity of economy in India. However the benefits of GST are depend on the rationally designed GST.
- Dr. R. Vasanthagopal (2011) in his research paper “GST in India: A Big Leap in the Indirect Taxation System” concludes that switching to seamless GST from current complicated Indirect tax system in India will be a positive step in booming Indian economy.

## METHODOLOGICAL DESIGN

Research is a systematic method finding solutions to a problem. It gives a structured picture for the management process like decision making and planning in accordance with data collection. It may be understood as all those method or techniques that are used for conduction of research. Methodology gives true path to find solution to a certain problem.

## RESEARCH DESIGN

Research design is a frame work or blue print for conducting the research. It is a logical and systematic planning and directing a piece of research. The research must prepare a detailed plan before research is undertaken. **Analytical research** is used by the researcher in this study. Analytical research is to identify the cause of something that is happening.

## PRIMARY DATA

Primary data was collected by researchers for first time, is from the employees of sum of you system, which happen to be original in character.

Primary data required for the study was collected through well structured interview scheduled by the researcher. The interview scheduled has been designed to gather the data keeping in view of the objectives of the study.

## SECONDARY DATA

Secondary data was collected by the researcher from the company's website, various journals, magazines, books, previous research data, and collected directly through company.

## SAMPLING DESIGN

For sampling design the following thing should be considered:

S.NO	TALUK	POPULATION
1	Coimbatore south	15,92,646
2	Coimbatore north	6,37,389
3	Pollachi	5,75,928
4	Sulur	3,21,051
5	Mettupalayam	2,60,172
6	valparai	70,859

## SAMPLING METHOD

The researcher used **convenient sampling method**, though the population was known because it was not flexible to collect data from the respondents through any systematic method so the researcher used convenient sampling techniques, the respondents has collected data from all respondents at different levels.

## HYPOTHESIS

H<sub>0</sub>: There is no association between income and satisfaction level of GST.

H<sub>0</sub>: There is no association between gender and current taxation system of GST.

H0: There is no association between age and satisfaction level of GST.

## TOOLS

- PERCENTAGE ANALYSIS
- ANOVA
- T-TEST
- MANGOVA

## LIMITATIONS OF THE STUDY

- ❖ The research is conducted in a supreme and normal agriculture sector after the implementation of goods and services tax.
- ❖ The attitude of the workers change from time to time. Hence the result of the project may be applicable only at present
- ❖ We can't get information because some of the workers are reluctant to share the information.
- ❖ Time available for the study is limited.
- ❖ The sample size is very small of only 100 respondents.

## DATA ANALYSIS AND INTERPERTATION

### TESTING OF HYPOTHESIS

H0: there is no relationship between income and satisfaction level of the respondent.

H1: there is relationship between income and satisfaction level of the respondent.

### INCOME \* SATISFACTION LEVEL OF RESPONDENT

From the table 4.29, the researcher going to test the above frame the hypothesis with the help of ANOVA tool in SPSS.

### ANOVA

ANOVA is an analysis tool used in statistic that splits an observed aggregate variability found inside a data set into two parts. Systematic factors and random factors. The systematic factors have a statistical influence on

the given data set, while the random factors do not. Analysts use the ANOVA test to determine the influence that independent variables have on the dependent variable in a regression study.

**FORMULA**

$$F = \frac{MST}{MSE}$$

MST - Mean sum of square due to treatment

MSE – Mean sum of square due to error

**ANOVA ANALYSIS**

**Test of Homogeneity of Variances**

Mean Score of Stratification

Levene Statistic	df1	df2	Sig.
1.928	3	98	.130

**ANOVA**

Mean Score of Stratification

	Sum of Squares	df	Mean Square	F	Sig.
(Combined)	1.839	3	.613	1.120	.345
Unweighted	.470	1	.470	.859	.356
Linear Term Weighted	.367	1	.367	.670	.415
Between Groups Deviation	1.473	2	.736	1.345	.265
Unweighted	1.468	1	1.468	2.682	.105
Quadratic Term Weighted	1.469	1	1.469	2.684	.105
Deviation	.003	1	.003	.006	.939
Within Groups	53.651	98	.547		
Total	55.490	101			

**Interpretation:**

The deviation of mean score between income and satisfaction level of respondent as deviated .736 which brings that the satisfaction range is highly differ from income level.

The calculator value of the table is .130 which is greater than a P value of 0.05. So, hypothesis is accepted. Hence it is concluded that there is a relationship between income and satisfied level of the respondent.

## TESTING OF HYPOTHESIS

H0: there is no relationship between age and current taxation system of the respondent.

H1: there is relationship between age and current taxation system of the respondent.

## AGE \* CURRENT TAXATION SYTEM OF RESPONDENT

From the table 4.30, the researcher going to test the above frame the hypothesis with the help of T-TEST tool in SPSS.

### T-TEST

A T-TEST is a type of inferential statistic used to determine if there is significant difference between the means of two groups, which may be related in certain features. It is mostly used when the data sets, like the data set recorded as outcome from flipping a coin 100 times, would follow a normal distribution and may have unknown variances. A T-TEST is used as a hypothesis testing tool, which allows testing of an assumption applicable to population.

### T-TEST ANALYSIS

**Group Statistics**

Age	Statistic	Bootstrap <sup>a</sup>				
		Bias	Std. Error	95% Confidence Interval		
				Lower	Upper	
18-25	N	41				
	Mean	2.6829	-.0070	.1866	2.3081	3.0556
	Std. Deviation	1.19246	-.01849	.08924	.99138	1.33815
	Std. Error Mean	.18623				
above 50	N	6				
	Mean	3.5000	-.0174	.5026	2.5000	4.5000
	Std. Deviation	1.22474	-.16632 <sup>b</sup>	.37725 <sup>b</sup>	.00000 <sup>b</sup>	1.61531 <sup>b</sup>
	Std. Error Mean	.50000				

**Independent Samples Test**

Levene's Test for Equality of Variances		t-test for Equality of Means					
F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference



								Lower	Upper	
current taxation system	Equal variances assumed	.000	.991	-1.563	45	.125	-.81707	.52281	-1.87007	.23592
	Equal variances not assumed			-1.531	6.468	.173	-.81707	.53356	-2.10008	.46593

**Bootstrap for Independent Samples Test**

		Mean Difference	Bootstrap <sup>a</sup>			
			Bias	Std. Error	95% Confidence Interval	
		Lower			Upper	
current taxation system	Equal variances assumed	-.81707	.01042	.53890	-1.92855	.17778
	Equal variances not assumed	-.81707	.01042	.53890	-1.92855	.17778

**Interpretation:**

The mean difference of between age of the respondent and current taxation system shows in negative impact with the various to the current taxation system of GST.

The calculator value of the table is .125 which is greater than a P value of 0.05. So, hypothesis is accepted. Hence it is concluded that there is a relationship between age and current taxation system of the respondent.

**TESTING OF HYPOTHESIS**

H0: there is no relationship between age, gender of fixed factor and satisfaction level of the respondent.

H1: there is relationship between age, gender of fixed factor and satisfaction level of the respondent.

**AGE \* GENDER \* SATISFACTION LEVEL OF RESPONDENT**

From the table 4.31, the researcher going to test the above frame the hypothesis with the help of MANCOVA tool in SPSS.

**MANCOVA**

Multivariate analysis of covariance (MANCOVA) is an extension of analysis of covariance (ANCOVA) methods to cover cases where there is more than one dependent variable and where the control of the continuous independent variables is required.



## MANCOVA ANALYSIS

### Between-Subjects Factors

		Value Label	N
Gender of the Respondent	1.00	Male	54
	2.00	Female	48

### Box's Test of Equality

#### of Covariance Matrices<sup>a</sup>

Box's M	31.185
F	1.967
df1	15
df2	39052.268
Sig.	.014

Tests the null hypothesis that the observed covariance matrices of the dependent variables are equal across groups.

a. Design: Intercept + age + Gender



### Multivariate Tests<sup>a</sup>

Effect		Value	F	Hypothesis df	Error df	Sig.
Intercept	Pillai's Trace	.761	60.364 <sup>b</sup>	5.000	95.000	.000
	Wilks' Lambda	.239	60.364 <sup>b</sup>	5.000	95.000	.000
	Hotelling's Trace	3.177	60.364 <sup>b</sup>	5.000	95.000	.000
	Roy's Largest Root	3.177	60.364 <sup>b</sup>	5.000	95.000	.000
age	Pillai's Trace	.117	2.521 <sup>b</sup>	5.000	95.000	.034
	Wilks' Lambda	.883	2.521 <sup>b</sup>	5.000	95.000	.034
	Hotelling's Trace	.133	2.521 <sup>b</sup>	5.000	95.000	.034
	Roy's Largest Root	.133	2.521 <sup>b</sup>	5.000	95.000	.034
Gender	Pillai's Trace	.049	.979 <sup>b</sup>	5.000	95.000	.435
	Wilks' Lambda	.951	.979 <sup>b</sup>	5.000	95.000	.435
	Hotelling's Trace	.052	.979 <sup>b</sup>	5.000	95.000	.435
	Roy's Largest Root	.052	.979 <sup>b</sup>	5.000	95.000	.435

a. Design: Intercept + age + Gender

b. Exact statistic

**Levene's Test of Equality of Error Variances<sup>a</sup>**

	F	df1	df2	Sig.
grains 4%	.106	1	100	.745
tractors 12%	.000	1	100	.994
fertilizers 5%	.017	1	100	.896
plastic pipes 28%	.260	1	100	.611
pesticides 12%	.935	1	100	.336

Tests the null hypothesis that the error variance of the dependent variable is equal across groups.

a. Design: Intercept + age + Gender

**Tests of Between-Subjects Effects**

Source	Dependent Variable	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	grains 4%	1.539 <sup>a</sup>	2	.770	.895	.412
	tractors 12%	2.335 <sup>b</sup>	2	1.168	1.219	.300
	fertilizers 5%	.859 <sup>c</sup>	2	.429	.570	.567
	plastic pipes 28%	4.842 <sup>d</sup>	2	2.421	2.421	.094
	pesticides 12%	4.735 <sup>e</sup>	2	2.367	2.240	.112
Intercept	grains 4%	112.681	1	112.681	131.029	.000
	tractors 12%	136.525	1	136.525	142.555	.000
	fertilizers 5%	132.790	1	132.790	176.333	.000
	plastic pipes 28%	142.875	1	142.875	142.874	.000
	pesticides 12%	159.326	1	159.326	150.784	.000
age	grains 4%	1.363	1	1.363	1.585	.211
	tractors 12%	.503	1	.503	.525	.470
	fertilizers 5%	.845	1	.845	1.122	.292
	plastic pipes 28%	.814	1	.814	.814	.369
	pesticides 12%	3.373	1	3.373	3.192	.077
Gender	grains 4%	.044	1	.044	.051	.822
	tractors 12%	2.123	1	2.123	2.217	.140
	fertilizers 5%	.076	1	.076	.101	.751
	plastic pipes 28%	3.304	1	3.304	3.304	.072
Error	pesticides 12%	2.164	1	2.164	2.048	.156
	grains 4%	85.137	99	.860		
	tractors 12%	94.812	99	.958		
	fertilizers 5%	74.553	99	.753		
	plastic pipes 28%	99.001	99	1.000		
Total	pesticides 12%	104.609	99	1.057		
	grains 4%	583.000	102			
	tractors 12%	765.000	102			
	fertilizers 5%	698.000	102			
	plastic pipes 28%	998.000	102			

	grains 4%	86.676	101		
	tractors 12%	97.147	101		
Corrected Total	fertilizers 5%	75.412	101		
	plastic pipes 28%	103.843	101		
	pesticides 12%	109.343	101		

a. R Squared = .018 (Adjusted R Squared = -.002)

gjm. R Squared = .005 (Adjusted R Squared = -.015)

### Interpretation:

The most of the gender are satisfaction with plastic pipes for their agriculture purpose with the mean score of 3.304 there for fixed factor of age limit groups are satisfaction with the pesticide with the mean score of 3.373.

The calculator value of Box's test equality of covariance is 0.014 which is less than P value 0.05. So, the hypothesis is rejected. There is a association between age , gender of fixed factor and satisfaction level of GST.

### FINDINGS

- Majority 52.9 percent of the respondents are male.
- Majority 40.2 percent of the respondents falls between the age group of 18-25.
- Majority 50 percent of the respondents education is under graduate.
- Majority 46.1 percent of the respondents living in rural area.
- Majority 47.1 percent of the respondents say moderate about the agriculture expenses.
- Majority 74.5 percent of the respondents say GST implemented in 1<sup>st</sup> July 2017.
- Majority 28.4 percent of the respondents say neutral about the GST benefits.
- The majority 38.2 percent of respondent are say neutral about the current taxation system.
- Majority 35.3 percent of the respondents say satisfied in the grains 4%.
- Majority 41.2 percent of the respondents say satisfied in the tractors 12%.
- Majority 42.2 percent of the respondents say neutral in the fertilizers 5%.
- Majority 42.2 percent of the respondents say neutral in the plastic pipes 28%.
- Majority 36.3 percent of the respondents say satisfied either and neutral in the pesticides 12%.

## SUGGESTIONS

- A GST council is constituted to have decision with regard to GST so that there is uniformity in rates and no deviation from proposed GST laws. It is in-charge for implementation of the GST at Centre and State level.
- Farmer's participation in technological development evaluation and on farm refinement should be promoted.
- Agriculture marketing should be improved so that the farmer gets proper price for their produce warehousing facilities should be improved. Means of transport should be strengthened. Regulated markets and co-operative marketing societies should be established.

## CONCLUSION

Agricultural sector is based on perishable items. And as foreseen in the Goods and Services Tax regime, if the supply chain evolves into something better, improving quick movement of goods, it will allow less food to be wasted. The profit in turn will go the farmers and the retailers, too. This will happen because interstate transportation of goods, here perishable food, will be easier. However, as the farm sector will remain largely exempt from GST, any input taxes suffered on inputs used in the farm sector such as seeds, fertilizers, pesticides, tractors etc., will remain blocked and contribute to increase in prices of farm output. Farm output prices are controlled by market forces and the farmer has little control. As the input price rises and output price remains stagnant, the farmer will have no option but to absorb the cost, thus increasing his burden. Indian farmer is already reeling under tremendous pressure from many ends and the increased burden of taxes will create a crater in his income. If somehow, the output prices increase, the nation will suffer as the food prices will go up, thus creating trouble for the common man. The government needs to be very cautious in implementing the new tax system and should have extra concern towards the farmers. Even a slightest burden on farmers will result in manifold distress and misery, they being the most vulnerable community of the country. However, a smooth GST regime can break inter-state barriers on movement and facilitate direct linkage between processors and farmers. This can transform the operations of mandis too if other necessary reforms to free up agricultural markets are undertaken.