A Study on Impact of Goods and Services Tax on Indian Economy for Sustainable Development in International Market

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ABSTRACT

With the intention of eliminating parallel economy and to introduce transparent taxation system, present government 'with strong will power implemented GST. The products and Services Tax (GST) is a consumption tax that covers a wide range of consumer products and services. The Goods and Services Tax (GST) is intended to replace a number of state and federal indirect taxes. Earlier, there was overlapping of the taxes and ultimately consumers were being charged more on certain products. Since GST is applied only to the value-added at each and every stage of sale or transfer of ownership, the cascading impact is eliminated. Due to complexity and inefficiency in tax regime, this significant fiscal reform affected the whole economy to a vast extent. This research would reveal the far-reaching effects of GST, which have improved the efficiency of tax collection and distribution, and by extension, the health of the federal economy in a democratic nation. It is assumed that GST will influence the economy in general and different individual units in particular. By eliminating the indirect tax barrier that existed between the states and integrating the country through a uniform tax rate, it has enhanced revenue collection and ultimately promoted the development of the Indian economy. This article discusses the history, future, and obstacles of India's Goods and Services Tax (GST). Finally, the effects of GST on India's trade deficit and surplus are analysed. The study draws out a conclusion on the significant benefits of GST for the import and export industry and making India Aatm-Nirbhar.

Keywords : Goods and Services tax, Government, Balance of Payment, Import/Export

Introduction

The tax system is a potent instrument for financing the SDGs and promoting equitable and sustainable development. In this regard, GST is a step taken to simplify the muddled up tax system. Many of India's preexisting indirect tax rules will be rendered obsolete by its implementation. The Goods and Services Tax Act was enacted by parliament on March 29 and went into effect on July 1, 2017. Many different types of indirect taxes would be replaced by a single national direct tax. In the past, both the federal government and individual states charged a number of different indirect taxes. Before the implementation of GST there were different set of rules and regulations for all the states and State Government mainly collected VAT (Value Added Tax). There are five different tax brackets in this system: 0%, 5%, 12%, 18%, and 28%. It is common practise to charge a higher GST on luxury items and a lower GST on needs. State governments impose different taxes on various goods, including petrol and alcoholic beverages. Rough rates of 0.25 percent apply to precious and semiprecious stones and 3 percent to gold. A cess of 22% or other rates are added on top of the 28% GST to the price of some products, such as alcoholic beverages, expensive automobiles, and tobacco products.

The Central Government levied a levy on goods called CST whenever they were sold between states. Indirect taxes were also collected by both the state and federal governments in the form of amusement tax, service tax, luxury tax, purchase tax, etc. The end result of this taxing arrangement was that taxes levied by the federal government and individual states began to overlap. Central GST, State GST, and Integrated GST are the new names for these levies. The way taxes were applied before GST was introduced was as follows:

The linkages in the supply chain process includes:

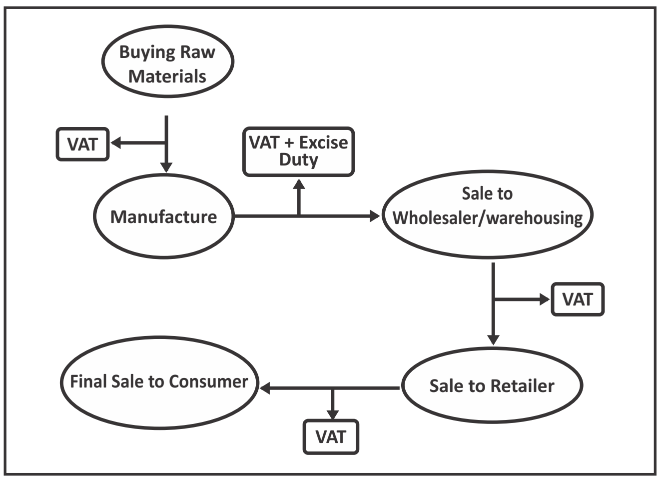
- Suppliers to manufacturers
- Manufacturer to wholesalers
- Wholesalers to retailers
- Retailer to ultimate consumer

Goods and Services Tax is charged at every stage, which makes it a multi-stage tax. It has been identified in the study that the supply chain challenges can be met through setting up branches or warehouses in different states/areas for timely and easy movement of stock in order to save tax. Also the provision to reduce input tax credit has improved business. Incentives based on area/location/state for reconsidering planned operations. It has also been identified that if retailers or traders could avail service tax credit and could reduce the transaction cost.

Literature Review

The papers of Yogesgarg and Jyoti Gupta (2014) provide a concise summary of the development of India's tax system and its current tax structure.

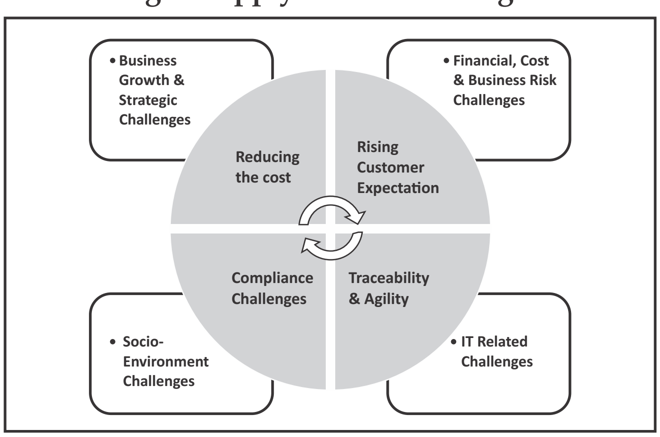
Fig 1: Process of Tax Implementation



Supply Chain challenges in GST Regime

A product's journey from creation to retail is represented by a supply chain.

Fig 2: Supply Chain Challenges



When there is already VAT then why there is need of GST model. It's just a new story of VAT which is setup for avoiding the cascading effect of taxation. And absorbing a wide range of indirect federal, state, and local levies. The author has provided a thorough analysis of GST, covering such topics as its history, undetected benefits, potential drawbacks, and more, concluding that the tax's application will help prevent a "domino effect" on the economy.

According to Lourdunathan F. (2017), the new GST tax structure has elicited a range of reactions, arguments, and opinions from businesses, shoppers, and producers alike. When the GST made various new organization from all over the world the author highlights the background, what to expect from the Goods and Services Tax (GST) in India, the difficulties in administering it, and the wave of economic reform it ushers in.

Bikram Pegu (2017) said A game changer in the Indian economy is what to be said as a GST. It is a vast indirect tax structure that is implemented to eliminate and replace any indirect taxes which were early being levied on many products. It is simply one tax for whole nation. The author analyses the effects of the proposed GST on the expansion and improvement of the economy.

Dr.Vikas Kumar (2017) commented that GST is considered to be the biggest tax reform since 1947. It focuses on making everyone pay tax once n for all as earlier tax was charged on the tax which was already paid on the earlier stage but with the GST tax has to be paid only on the products price. The tax will be paid on all the stages of transfer of ownership. The true success of GST may be measured by how it has affected the average citizen of the country.

Research Methodology

Aims of the Research

- To get understanding about GSTN and its related concepts.
- To study what taxes were eliminated and replaced by GST
- To study how GST affected exports and import industry.
- To study socio-economic effects of GST.

Research Hypothesis

Ho : There has been no change to business as usual in India as a result of the implementation of Goods and Services Tax.

Ho : This tax has no impact on the import and export industry in various ways, some positive and some negative.

H1 : All facets of India's economic operations have been affected by the new Goods and Services Tax law.

H1 : This tax has impacted the import and export industry in various ways, some positive and some negative.

Hypothesis Testing

Impact of GST on Economic operations

The fundamental goal of adopting a unified taxation system was to lessen the burden of paying taxes by eliminating indirect tax effects and streamlining the tax structure to make transactions cheaper.

As a result, manufacturing, exports, and economic growth in India all rose, as did the ease with which businesses could trade with one another. Let us compare the collection of revenue in pre-GST and post-GST

Comparison of Tax Regimes (pre-GST era and post-GST era)

As we have identified that increase in revenue leads to increase in business operation, we can assess it with the help of comparison before and after the implementation of GST pattern:

Table 1: Collective of Revenue in Pre-GST and Post GST

Evaluation of All Taxes Included in GST (Before and After GST Implementation)						
PRE-GST TIME FRAME						
Type of Tax	**F.Y. '13**	**F.Y.' 14**	**F.Y.' 15**	**F.Y.' 16**	**F.Y.' 17**	**CAGR(FY'17 over FY' 13**
	Rs lakh crores					
	GST includes all state taxes					
1. All state taxation was consolidated onto the GST website	2.86	3.09	3.32	3.97	3.92	
2. GST(a) now incorporates a higher percentage of total state taxes.	3.22	3.48	3.73	4.41	4.41	
	GST replaces all previous central taxes					
3. Non-petroleum product Union excise taxes	0.33	0.35	0.34	0.37	0.6	
4. Tax on services	1.33	1.55	1.68	2.11	2.54	
5. The sum of the Central taxes ((3) and (4)) that GST replaces.	1.66	1.9	2.02	2.48	3.14	
6. Amount of federal and state levies that are absorbed by GST ((2)+(5)	4.88	5.37	5.75	6.9	7.55	0.1153
7. Total Economic Output, Nominal	99.44	112.34	124.68	137.72	153.92	0.1154
TIME FRAMES AFTER THE IMPLEMENTATION OF GST						
Category	**F.Y. '19**	**F.Y.' 20**	**F.Y.' 21**	**F.Y.' 22**	**F.Y.' 23**	**CAGR(FY'23 over FY' 19**
	Rs lakh crores					
8. Sum of GST Paid on Domestic Sales	8.77	9.44	8.66	10.98	12.94	0.102
9. Gross Value Added Tax Receipts, Including GST on Imports	11.77	12.22	11.37	14.9	17.8	0.109
10. Total GST collections on imports ((9)-(8))	3	2.78	2.71	3.92	4.86	
11. GDP Estimate for India	189	200.75	198.01	236.65	273.09	0.096

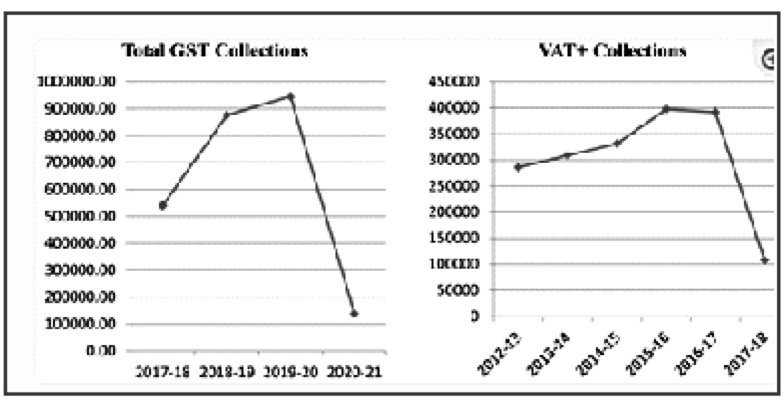
Source: Department of Revenue, Union Budget, MoSPI, PIB releases

Table 2: Calculation of Ratio of GST Collection to GDP

Ratio of GST to Nominal GDP					
PRE GST PERIOD					
Category	**F.Y. '13**	**F.Y.' 14**	**F.Y.' 15**	**F.Y.' 16**	**F.Y.' 17**
Taxes included in GST	4.88	5.37	5.75	6.9	7.55
(Centre + States)					
Nominal GDP	99.44	112.34	124.68	137.72	153.92
Ratio of GST : Nominal GDP	61:1243	537:11234	575 : 12468	699 : 13772	755:15392
Ratio above in %	4.91%	4.78%	4.61%	5.08%	4.91%
POST GST PERIOD					
Column1	**F.Y.19**	**F.Y.20**	**F.Y.21**	**F.Y.22**	**F.Y.23***
1. Sum of GST Paid on Domestic Sales	8.77	9.44	8.66	10.98	12.94
2. Gross Value Added Tax Receipts, Including GST on Imports	11.77	12.22	11.37	14.9	17.8
3. GST collections on imports(2-1)	3	2.78	2.71	3.92	4.86
4. India Nominal GDP	189	200.75	198.01	236.65	273.09
5. Ratio of Total GST collections (domestic supplies) to Nominal GDP	877:18900	944:20075	866:19801	1098:23665	1294:27309
6. Ratio of Total GST collections (domestic supplies) to Nominal GDP in percentage	4.64%	4.70%	4.37%	4.64%	4.74%
7. Ratio of Total GST collections (including GST on imports)) to Nominal GDP	1177:18900	1222:20075	1137:19801	298:4733	1780:27309
8. Ratio of Total GST collections (including GST on imports)) to Nominal GDP in percentage	6.23%	6.09%	5.74%	6.30%	6.52%

Source: Department of Revenue, Union Budget, MoSPI, PIB releases

Fig 3: Trends in GST and VAT Collection



Source: GST Council website

There is a vast difference between the two phases. An expanding tax base and fewer cases of tax evasion are likely contributing factors to the rise in revenue.

After the introduction of GST, the tax would be collected at every retail outlet. When making an interstate sale, you'll have to pay GST and GST from the state in addition to the federal government.

Finding: Through Calculation of CAGR and Ratio of GST to Nominal GDP, it can be said that since implementation of GST, the contribution of tax has enhanced the growth rate of India. Thus, our First Null Hypothesis stands rejected.

The paired t-Test can be used to compare the means of tax collection before and after GST was implemented, providing insight into the economic effects of each period. Time acts as a barrier between the two factors.

Table 3: Average of the Pre-GST System and the Post GST System

No. of Years	Pre GST Mean (FY13-17)	Post GST Mean (FY19-23)
1	2.44	3.6
2	2.69	3.743
3	2.875	3.496
4	3.445	4.583
5	3.775	5.506

Table 4: Calculation of Paired t-test for two sample means

	Pre GST Mean	Post GST Mean
Mean	3.045	4.1856
Variance	0.2428	0.5832
Standard Deviation	0.4927	0.7637
n	5	5
t	-7.2047	
d.o.f	4	
Critical value	2.776	
| t | > criticall value	**=>**	**there is sig. diff.**

Follow these formulas to calculate your t-value and degrees of freedom:

$$t = \frac{\sum d}{\sqrt{\frac{n(\sum d^2)-(\sum d)^2}{n-1}}}$$

d.o.f= n-1

where,

Σd= The aggregate of pairwise dissimilarities

The average distance between two pairs = -1.1406

Standard deviation of differences between pairs= 0.354

When these numbers are plugged into the formula for t, we get:

T= -7.2047

With n - 1 = 4 = DOF and $\alpha = 0.05$, we may say the following:

T-table analysis yields a critical value of 2.776.

The estimated absolute value (7.2047>2.776) is larger than the threshold value, indicating a statistically significant difference between the means.

Import/ Export in India

In international trade import and export are the major tools of sharping money transaction. An import of a decent happens once there's an amendment of possession that shifts from a resident to a non-resident.

Types of Import

- Consume goods and Industrial goods
- Intermediate goods and services

IGST stands for "Integrated Goods and Services Tax."

If the following criteria are met, the GST will apply to the import of services:

- Place of supply has to be India.
- Recipient of service should be of India.
- Supplier of service should be not be of India.
- The importer is responsible for paying the tax under the reverse charge mechanism.

IGST on Imports is calculated through following formulae:

Duties and taxes on imports equal the sum of the following: the value of the imported good plus the basic custom duty multiplied by the IGST rate.

GST on Import in India

As of the largest economy India holds the 5th place in the world and it is a fastest growing economy. When it comes to economic growth, trade is one of the most significant factor that plays the role.

When GST was first introduced and put into effect in India, it completely revolutionised the way trade was conducted there. Prior to the introduction of the GST tax system, imported items were subject to a variety of import charges. These import duties includes customs duty, countervailing duties of excise and duties which are equivalent to VAT. This is replaced by IGST

Even after the implementation of GST there are certain exceptions on imports of petroleum product and pan masala that still levy of countervailing duties even after the implementation of GST. Customs duty, education cess and productive taxes are also levied on import of certain goods even after implementation of IGST. On the other hand when it comes to services only the IGST is levied.

As per Article 269A, India's import GST structure works as below:

Fig 4: Import GST Structure

In India, importing products is considered a form of interstate supply. The new tax structure levies IGST on interstate supplies, thus it follows that the same tax would be applied on imports. In the previous tax regime, countervailing duty (CVD) was added to the MRP. Under the GST system, it is now a part of the IGST. There are many modifications in the exemptions provided in the imports which will possibly affect the Foreign trade policy. However, removal of such exemptions will impact pricing, cost and working capital requirements of importers.

Export

When it comes to export the main authority is the customs authority. There are different rules and regulation for export and import in different countries which is enforced by the customs authority.

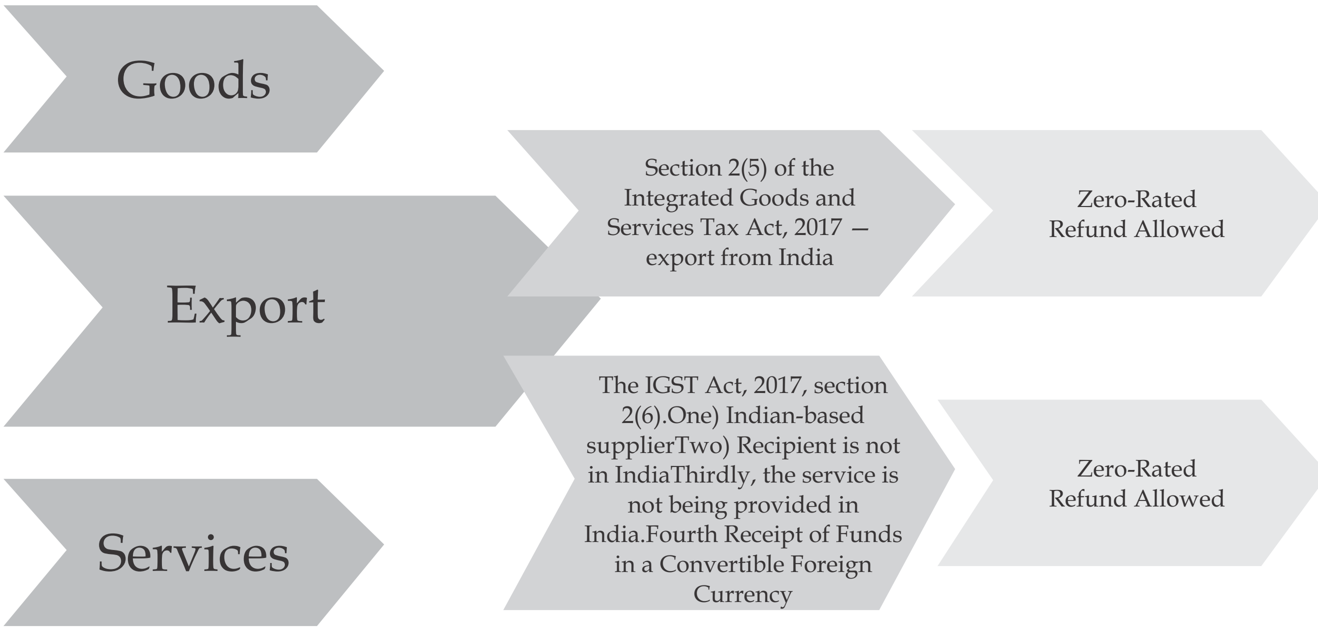
After "Make in India" campaign the aim of implementing GST was to increase the output from India's export along with it benefits to exporters. The implementation of Goods and Services Tax was done in July but still there is confusion to the exporters on how the GST would work out for them. To eliminate such delimit and answer these queries, government took a step and a set of notification and guidance notes for public is shared in aspect to the applicability of goods and service tax and how to claim input tax credit on zero-rated exports.

Export - Related Taxation Scheme

The Goods and Services Tax (GST) should not be applied to shipments leaving India. The transaction will be termed as 'zero-rated supply' if the supply of goods which are exported from India is qualified as export as per the rules of the place where the product is exported.

Suppliers should be able to export their wares and services tax-free, as well as claim input tax credits for goods and services that have already been exported.

Fig 5: Export GST Structure



The ultimate goal of IGST is to include both importers and exporters. Exports will be tax-free thanks to the ITC refund policy. Imports should be subject to both IGST and Basic Custom Duty.

Effect of GST on International Trade

One of the significant benefits of GST for the import and export industry is the simplification of the tax structure. Previously, different taxes were levied on imports and exports, leading to a complicated process. With the introduction of GST, a single tax is applicable to both imports and exports, making the process more straight forward and less time-consuming.

Importers and exporters now have more regulations to follow due to GST's implementation. The new tax regime requires them to comply with GST regulations, which has resulted in a more transparent and efficient system. The increase in compliance has also led to better documentation and record-keeping, making it easier for authorities to monitor and regulate the industry. This has had a positive impact on the BOP. The government reaps the benefits of increased compliance since tax evasion is reduced.

Another significant impact of GST on imports and exports is the increase in costs. The cost of importing products rises because GST is applied to the total value of the shipment, which includes customs duty. This increase in costs can be a significant challenge for importers who need to factor in the additional costs while determining their selling price. . The rise in import prices has slowed the outflow of foreign money, which has hurt the balance of payments.

In spite of the difficulties, GST has been beneficial to the export sector. As a result of the GST return mechanism, inputs utilised in the manufacture of items for export have become cheaper to use. India's exports have increased as a result of the country's lower production costs, which have made Indian goods more competitive on the global market. The increase in exports has had a positive impact on the BoP. In other words, it has helped to improve the BoP by increasing the inflow of foreign currency. Another benefit of GST for the import and export industry is the streamlining of customs procedures. Because of GST, customs procedures are now linked to the GST Network (GSTN), making the entire process more streamlined and effective. Importers and exporters can now comply with customs laws with less effort and expense thanks to this integration.

The Goods and Services Tax (GST) is a single tax collected at each link in the supply chain, from producer to buyer, with credits given for taxes already paid. This has resulted in a reduction in tax evasion, as it is difficult for taxpayers to evade taxes in this system. The government's revenue has increased as a result, which is good news for the BOP. If the government is able to bring in more money, that's good news for the BOP since it means the deficit can be down and the economy can improve.

Furthermore, GST has led to a reduction in the informal sector, which refers to economic activity that is not regulated or taxed by the government. Prior to this change, the government lost tax income since the informal sector was not included in the tax net. With GST, however, the formerly untaxed informal sector is now subject to taxation, resulting in an increase in government revenue. This has improved the BoP since higher taxes collected by the government mean less money needed to cover expenses and a healthier economy overall.

Overall, GST has had a significant impact on the import and export industry in India and has helped streamline the tax structure, leading to a more transparent and efficient system.

In this research, we employ correlation analysis to demonstrate how IGST affects imported products and services. Let's do some data analysis:

Table 5: Correlation between IGST and Imports percentage

Year	X (IGST Collection)	Y (Percentage of Imports)
2018-19	3	19.8
2019-20	2.78	6.5
2020-21	2.71	13.2
2021-22	3.92	56.8
2022-23	4.86	34

Source: Union Budget documents

Table 6: Calculation of r

Parameter	Value
Pearson correlation coefficient (r)	0.6928
P-value	0.1947
Covariance	12.7705
Sample size (n)	5
Statistic	1.6641

Calculation of r

$$r = \frac{\frac{5-1}{\Sigma(x_i - \bar{x})(y_i - \bar{y})}}{\sqrt{(\Sigma(x_i - \bar{x})^2 \Sigma(y_i - \bar{y})^2)}}$$

$$r = \frac{51.0818}{\sqrt{(3.4079*1595.152)}} = \mathbf{0.6928}$$

x - x̄	y - ȳ	(x - x̄)2	(y - ȳ)2	(x - x̄)(y - ȳ)
-0.454	-6.26	0.2061	0.2061	2.842
-0.674	-19.56	0.4543	0.4543	13.1834
-0.744	-12.86	0.5535	0.5535	9.5678
0.466	30.74	0.2172	0.2172	14.3248
1.406	7.94	1.9768	1.9768	11.1636
0	0	**3.4079** (SSx)	**1595.152** (SSy)	**51.0818** (SPxy)

The correlation coefficient (r= 0.6928) shows a significant positive relation between imports and IGST

Major Findings

While conducting the research, following findings can be drawn:

- GST is the future of input tax credit.
- Benefits to the exporter.
- Schemes like MEIS and SEIS will consolidate Export Industry.
- Duty drawback Rates
- Zero GST rate on Export
- GST will positively affect the import of goods.
- GST will impact FTP

Conclusion

The installation of GST was done with a watchful eye towards preventing a tax "domino effect" that would slow down economic growth in the long run. Some of the many claims made concerning GST are correct, however the vast majority are false. GST is more akin to a book that few people have read but on which everyone has strong opinions. In the long run, GST will lead to a unified national tax market.

It's the next obvious step towards a complete overhaul of our country's indirect tax system. Setting off a larger portion of input tax and service tax will benefit ultimate consumers, industries, commerce, and agriculture. There will be more competitiveness of India good in the international market and it will boost the India export helping economy. In summary, the impact of GST on the import and export industry has been both positive and negative. The simplification of the tax structure, increase in compliance, and streamlining of customs procedures have been beneficial. Overall, GST has had a significant impact on the import and export industry in India and has helped streamline the tax structure, leading to a more transparent and efficient system. Thus my null hypothesis stands rejected and alternate hypothesis accepted.

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