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Implication of Goods and Services Tax (GST) Implementation in India on Foreign Trade

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ABSTRACT

The **aim** of this research is to assess the impact of GST on India's foreign trade. The GST Bill is implemented to simplify India's complex tax system, allow commodities to move effortlessly across state borders, reduce tax evasion, enhance compliance, raise revenues, encourage growth, boost exports, and attract investors by making it easier to conduct business in India. The author uses the following methods of scientific research: Augmented Dickey-Fuller (ADF) for unit root tests, the Johansen-Juselius (JJ) for co-integration analysis and the Vector Error Correction (VECM) Model for short run and long run impact of GST on imports and exports from July 2017 to June 2021. The findings **concluded** that GST increases the exports of goods and services in both the long and short run. The VECM model's test statistics reveal that imports rose after the imposition of GST. Because of the emergence of a uniform national market and tax system, GST has simplified commercial operations in India. Future studies on the effects of the GST introduction can examine the impact of GST on foreign trade by state or commodities.

Keywords: goods and services tax; imports; exports; balance of trade; foreign trade; India

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ОРИГИНАЛЬНАЯ СТАТЬЯ

Последствия введения в Индии налога на товары и услуги (GST) для внешней торговли

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АННОТАЦИЯ

Целью данного исследования является оценка влияния налога на товары и услуги на внешнюю торговлю Индии. Согласно прогнозам внедрение законопроекта о GST упростит сложную налоговую систему Индии, позволит товарам легко перемещаться через границы штатов, сократит уклонение от уплаты налогов, повысит уровень соблюдения законодательства, увеличит доходы, будет стимулировать рост, увеличит экспорт и привлечет инвесторов, упростив ведение бизнеса в Индии. Автор использует следующие **методы** научного исследования: дополненный тест Дики-Фуллера (ADF) для единичного корня, метод Йохансена-Джуселиуса (JJ) для коинтеграционного анализа и модель векторной коррекции ошибок (VECM) для оценки краткосрочного и долгосрочного влияния GST на импорт и экспорт с июля 2017 по июнь 2021 г. Полученные результаты свидетельствуют о том, что GST увеличивает экспорт товаров и услуг как в долгосрочной, так и в краткосрочной перспективе. Тестовая статистика модели VECM показывает, что импорт вырос после введения GST. Сделан **вывод**, что благодаря появлению единого национального рынка и налоговой системы, GST упростило коммерческие операции в Индии. Дальнейшие исследования последствий введения GST могут изучить влияние GST на внешнюю торговлю в зависимости от штата или товара.

Ключевые слова: налог на товары и услуги; импорт; экспорт; торговый баланс; внешняя торговля; Индия

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1. INTRODUCTION

Goods & Services Tax is a comprehensive, multistage, destination-based tax (GST) that is levied on each stage where manufacturing and sales of goods/services take place. It is levied upon the consumption of goods and services. It has three subcategories:

- Central Goods and Services Tax (CGST): It is a tax levied on Intra State supplies of both goods and services by the Central Government.
- State Goods and Services Tax (SGST): It is a tax levied on Intra State supplies of both goods and services by the State Government.
- Integrated Goods and Services Tax (IGST): It is a tax levied on all Inter-State supplies of goods and/or services. IGST will be applicable on any supply of goods and/or services in both cases of import into India and export from India.

The Goods and Services Tax (GST) has revolutionized the way Indian businesses operate. The Bill is implemented to simplify India's complex tax system, allow commodities to do across state borders, reduce tax dodging, enhance compliance, raise revenues, encourage growth, promote exports, and encourage investment by making it easier to conduct business in India [1]. But GST has also brought some challenges because of its dual structure. India has adopted dual GST where centre and state collect taxes at their own level. It has made the entire structure of GST fairly complicated in India. The centre will have to coordinate with all states and union territories to collect and share tax. Moreover, states have also lost their autonomy in determining rates under GST.

The implementation of GST has transformed the way businesses operate in India and also have a substantial influence on foreign trade of commodities since it overhauled the framework of imports and exports duty and eliminated several indirect taxes and deductions. It also causes changes in the small-scale and medium-scale industries. As a result, the worldwide market's competitiveness has shifted. Trade is one of the most important variables that contribute to a country's economic prosperity (imports-exports). As a result, it is critical to monitor international trade performance following the adoption of the GST [2].

Prior to the adoption of GST, the status of imports of goods and services was subject to a variety of state and centralized taxes, including customs duty, countervailing duty (similar to excise duty), and special extra charge (equal to value-added tax). All of these taxes have been replaced by the GST, which

is a single integrated goods and services tax (IGST) [3]. However, some imports continue to be subject to basic customs duty, education cess, and other protective taxes, such as anti-dumping duty and safeguard duty, in addition to the IGST. GST is not to be levied on products or services exported from India. If the supply of commodities qualifies as an export out of India under the Place of Supply Rules, the transaction is classified as a «zero-rated supply.» The supplier must be permitted to export the goods/services tax-free and to claim the CGST/SGST and IGST credits paid on inputs and input services. If he or she is unable to use the credit, he or she may apply for a credit refund under Section 38 of the proposed Central GST Act, 2016.

In a nutshell, IGST will apply to both imports and exports. Exports will be zero-rated, and ITC will be refunded. Imports will be subject to IGST as well as Basic Custom Duty.

We have discussed the impact of GST on a few sectors relating to overseas commerce in the sections below.

Easy Business Doing

One element on which the sector has agreed is that GST, as a destination-based tax (where the tax is levied at the point of supply or consumption rather than the site of production), makes life simpler for businesses in India. Companies are no longer required to file tax returns with different departments, but instead, use a single web-based application to do so [4]. The country is eventually become a single market, with uniform pricing across states and efficient management, rendering our goods more attractive.

Increase Exports

Can exports be far behind if GST makes doing business easier? One apparent result of uniform taxes and cost reductions due to a reduction in time and money in shipping would be that 'Made in India' items would now be more cost-competitive in global markets [5]. Our exports were sinking under the prior tax regime because we also exported a significant percentage of taxes. Due to double taxes, indigenous producers were unable to capitalize. All of this is altered after the implementation of GST. And, ultimately, the country's export is increased. GST is not to be levied on products or services exported from India. If the supply of commodities qualifies as export out of India under the Place of Supply Rules, the transaction is classified as a «zero-rated supply».

Table 1

Government's fiscal parameters pre and post GST implementation

Years	Indirect tax (₹ Crore)	Indirect tax as percentage of GDP	Exports (₹ Crore)	Imports (₹ Crore)
2010–2011	741 348	9.41	1 142 922	1 683 467
2011–2012	871 505	9.84	1 465 959	2 345 463
2012–2013	1 036 732	10.35	1 634 318	2 669 162
2013–2014	1 119 772	9.86	1 905 011	2 715 434
2014–2015	1 217 289	9.71	1 896 445	2 737 087
2015–2016	1 466 981	10.81	1 716 384	2 490 306
2016–2017	1 662 518	10.95	1 849 434	2 577 675
2017–2018	1 856 945	11.07	1 956 515	3 001 033
2018–2019	2 032 864	10.69	2 307 726	3 594 675
2019–2020	2 161 306	10.63	2 219 854	3 360 954
2020–2021	2 441 371	12.36	2 154 339	2 909 937

Source: Handbook of Statistics on Indian Economy for various years.

Notes: Data for 2019–2020 are Revised Estimates and data for 2020–2021 are Budget Estimates; Amount of Indirect tax are Gross tax collection.

The Revolution in Logistics

GST has completely transformed the logistics and transportation business. Existing studies have already highlighted that the simplified tax procedure will lower the cost of maintaining inventory by half because merchandise need not to be stacked up in multiple warehouses and elimination of toll booth delays.

The Goods and Services Tax (GST) has transformed India's diverse tax framework into a single uniform tax rate, transforming the country into a single marketplace. This allows for the seamless delivery of commodities across borders with drastically reduced transit times and increased demand for logistics services.

Table 1 compares the various fiscal and foreign trade parameters namely indirect taxes, indirect taxes as a percentage of GDP, import and export in the pre and post-GST era.

The data obtained from the official sources (see Table 1) over the years on indirect taxes reveals that tax collection in India is rising over the years, still India needs to increase its share of taxes in GDP because it has not been improved enough after GST implementation. The higher proportion of tax to GDP shows faster economic development as it enhances the government's ability to finance the

expenditure. In 2020–2021, indirect taxes' share in GDP was about 12.36% of GDP while in 2016–2017 immediately before GST implementation it was 10.95%. Similarly, the export and import in 2020–2021 was Rs. 2154339 crore and Rs. 2909937 crores as compared to Rs. 1849434 crore and Rs. 2577675 crores in 2016–2017. However, due to coronavirus restrictions, the import and export growth is affected and the growth of foreign trade has slowed down which can be seen in Table 1. Export and import have reached Rs. 2307726 crores and Rs. 3594675 crores in 2018–19 and declined to Rs. 2154339 crore and 2909937 crores in 2021.

This study's contribution and novelty may be seen in numerous areas. From a theoretical and methodological standpoint, this study empirically tested the effect of GST on the import and export of goods and services in India that contribute to the study's novelty. The existing studies primarily belong to the impact of GST on the Indian economy and used only qualitative information. The studies on the impact of GST on foreign trade are not well explored which might be due to the nascent stage of GST implementation in India, which makes it difficult to deploy comprehensive quantitative data. Hence in this study, we have adopted monthly time series data from July 2017 to June 2021 to assess the impact

of GST on import and export in India. The impact of GST on import and export is a contentious issue, and the available literature presents GST implications on the economy in general necessitating more research in this field. From a geographical standpoint, this is the first attempt to assess the impact of GST on foreign trade in India. It is a well-known fact that the GST is a remarkable indirect tax reform in India that transforms the way of doing business in India, which has seen a cumbersome tax structure over the years. Earlier studies are focused on the GST in developed and developing countries that have implemented GST decades back.

Section 2 includes a study of relevant literature. Section 3 describes the data and methods used, as well as the variables. Section 4 reports on the empirical results and discussion. Finally, Section 5 presents the paper's conclusions and underlines its implications.

2. LITERATURE REVIEW

This section will focus on a review of the extant literature related to GST before and after its implementation in India. India has implemented GST in July 2017 which took India a significant step forward. It is the most significant tax change in decades. Many scholars disagree with the implementation of GST as a replacement for VAT and considered it an indirect tax reform because it subsumes various indirect taxes both at the central level and state level. Authors have used several approaches to determine the impact of GST on the Indian economy.

Leemput and Wiencek [6] explored the country's multi-layered taxes, such as the national and state indirect tax structures. According to the report, the new tax regime removed ten different forms of indirect taxes including state level VAT (however VAT is still applicable in some items such as petrol and alcohol), central excise duty, services tax, additional customs duty, surcharges, Octroi, etc., and combined them into a single tax system that applied throughout the country. The report described the tax rates imposed on various commodities and services traded in India. They examined the impact of GST using the foundational model of commerce and geography, which included all of the states in the nation. They envisioned India as a single entity comprised of 30 diverse states that trade agricultural and manufactured commodities both locally and globally. They calculated internal and international obstacles to assess the impact of GST. The report also discusses the link and differences

between India's classical and contemporary tax systems. They studied the country's imports and exports to determine the impact of the tax reform via a trade model. According to the study, GST is intended to improve general Indian well-being and to be a comprehensive strategy in the sense that it would benefit all Indian states. According to the trade model, GST would result in real GDP gains of 4.2%.

The structure of GST was developed by the Empowered Committee, which includes state finance ministers and cabinet ministers because the structure of GST is dual. The tax is levied by the central and state governments in the form of CGST (levied by central government) and SGST (levied by state governments) and IGST (levied by central government but distributed between central and state governments) [7]. The article of Raj [7] shed some insight on the economist's and taxpayer's predictions. The author revealed that from the perspective of economists GST will boost exports by 3.2 to 6.3 percent because it moderates the cost and the taxpayer feels that it promotes neutrality, efficiency, clarity, simplicity, effectiveness, and justice. He has also discussed some of the disadvantages of GST, claiming that a goods and services tax would not increase growth but will increase consumer price inflation and that there appear to be some loopholes in the planned GST. Coordination between 29 states and 7 union territories to create such a tax scheme will be tough.

GST makes life simpler for Indian enterprises as a result of the creation of a common national market [8]. One apparent result of even taxation and cost-effectiveness due to reduced time and expenses in shipping would be that 'Made in India' items would now be more cost-competitive in global markets. It also emphasises that its implementation represents a cohesive tax structure that absorbs the majority of existing indirect taxes, resulting in increased output, more job possibilities, and a thriving GDP in the long run.

Some authors [8, 9] in early phases of GST implementation have revealed that if GST is implemented properly at the ground level, with tax exemptions for certain goods such as agricultural commodities, this will result in higher revenue at the Centre as the tax collection system becomes understandable, eliminating the problem of tax evasion and leading to economic growth, allowing Indians to reclaim the wealth they have lost within the country. Nayyar and Singh mentioned that GST would have an influence on all industries

in India, including manufacturing, services, telecommunications, automobiles, and small and medium-sized enterprises (SMEs). One of the most significant tax reforms, GST, would link the whole country under a single taxing system rate. Experts expect that GST would enhance tax collections, boost India's economic development, and eliminate all tax barriers between the state and central governments [9].

Sahoo and Swain [10] emphasised the impact of GST after one year of its introduction. It emphasises that government officials and experts are now considering the need to make several changes in the existing GST architecture, such as removing the 28 percent tax rate and transitioning towards fewer tax slabs by merging 12 percent and 18 percent rates, and systematically bringing electricity, real estate, and petroleum products under its purview. It also streamlines submission by eliminating the obligation to submit so many returns at such short intervals, while simultaneously strengthening anti-evasion procedures.

Two recent studies by Deshmukh, Mohan & Mohan [11] and Neog & Gaur [12] have studied the effects of GST implementation in India. Deshmukh, Mohan & Mohan [11] presented a general macroeconomic analysis of the extent to which the adoption of GST has improved existing tax administration and the resultant general economic well-being of a democratic political economy like India in light of the situation-actor-process; learning-action-performance analysis framework for the case analysis. The analysis revealed that India has observed a tremendous increase in tax base vis-à-vis revenue collection. Yet, some efforts are desired to improve the low tax to GDP ratio, skewed GST payers base, negative stakeholders' perception of GST, and the evil of tax evasion. The other merits realized by the economy are presented as benefits to the consumers, MSMEs, improved ease of doing business ranking and fostering make-in-India and *Aatmanirbhar Bharat* move by the government.

Neog & Gaur [12] highlighted GST is not the only policy that transformed the tax structure of India; other major policy changes have also taken place. Reforms are the ongoing process that takes place when needed. The Tax Reform Committee (TRC) report of 1991 is regarded as one of the most productive and structured policy recommendations of that time. At the state level, sales tax reform in the form of Value Added Tax (VAT) in 2005 becomes a fruitful policy initiative. Again, when the need arises one more tax reform has taken place in form

of GST. However, the tax collections at both national and sub-national levels are still low as compared to the international standards.

The smooth functioning of GST is based on the well-developed infrastructure in a form of information system, a mechanism of sharing of GST between state and centre and well-defined rules and regulations. Hence, the government should be extremely clear that in order for GST to function successfully, information systems should be adequately built throughout India [13–15]. Moreover, the central government should assure the state governments that the GST is functioning well. Furthermore, every effort should be taken to cover all things under GST which have still been left out so that no item is left out of the GST preview; otherwise, the goal of adopting GST would be defeated. In India, certain items are not yet subject to GST such as petrol and alcohol.

Having cited the above literature, the researchers observed a lack of primary and secondary literature linking indirect tax reform in an economy and its impact on foreign trade. The studies cited primarily belong to the impact of GST on the economy and used only qualitative information, which was used to establish the viewpoint. However, due to the nascent stage of GST implementation in India, it becomes difficult to deploy comprehensive data. Hence in this study, we have adopted monthly time series data from July 2017 to June 2021 to assess the impact of GST on import and export in India.

3. RESEARCH METHODOLOGY

3.1. Description of variables and data sources

Imports of goods and services (IMPORT): Imports of goods and services is the total import of the country. The essential information on import and export is taken from the Department of Commerce, Ministry of Commerce and Industry, Government of India¹ from July 2017 to June 2021.

Exports of Goods and Services (EXPORT): Exports of goods and services are the total Export of the country. The data on export is taken from the Department of Commerce, Ministry of Commerce and Industry, Government of India¹ from July 2017 to June 2021.

Goods and Services Tax (GST): Goods and Services tax consists of revenue collection from July 2017 to June 2021. The data on GST has been

¹ URL: <https://tradedat.commerce.gov.in/meidb/default.asp> (accessed on 10.02.2022).

Table 2

ADF Unit root tests results

Variables	Intercept		Trend and Intercept		None	
	Level	First Difference	Level	First Difference	Level	First Difference
Export	-5.097 (0.101)	-8.071 (0.000***)	-5.439 (0.210)	-8.000 (0.000***)	0.576 (0.837)	-8.112 (0.000***)
Imports	-2.624 (0.095*)	-8.240 (0.000***)	-2.607 (0.279)	-8.144 (0.000***)	0.335 (0.778)	-8.311 (0.000***)
GST	-29.99 (0.301)	-8.012 (0.000***)	-28.94 (0.057*)	-7.917 (0.000***)	-0.010 (0.673)	-8.113 (0.000***)
GDP	-2.594 (0.103)	-6.658 (0.000***)	-2.673 (0.251)	-6.583 (0.000***)	0.407 (0.797)	-6.708 (0.000***)
TO	-3.940 (0.090*)	-9.168 (0.000***)	-3.898 (0.190)	-9.063 (0.000***)	-0.278 (0.580)	-9.263 (0.000***)
ER	-1.517 (0.515)	-5.685 (0.000***)	-1.696 (0.737)	-5.728 (0.000***)	1.315 (0.950)	-5.535 (0.000)

Source: authors' estimations using STATA.

Note: *, ** and *** denote significance at the 10%, 5% and 1% levels, respectively, P value in parentheses.

collected from the GST portal of the Government of India.²

Gross Domestic Products (GDP): GDP is the total output of the country which is considered as the current price of Gross Domestic Product in India. The data on GDP has been taken from FRED Economic data Series.³

Exchange Rate (ER): It is measured as the National currency to US dollar exchange rate for which data has been collected from FRED Economic data Series.³

Trade Openness (TO): It is calculated as exports plus imports as percent of GDP.

3.2. Statistical Techniques

The research used a Vector Error Correction (VECM) model to examine the impact of GST on India's foreign trade from July 2017 to June 2021. Before beginning the estimate method, the monthly data series for the study were submitted to a unit root pre-test. However, the argument for using the VECM model is also cointegrated. The VECM considers all variables to be a priori endogenous and so adjusts for the interplay of

endogenous and exogenous factors. Exogenous variables might be integrated into the VECM model in some circumstances.

4. EMPIRICAL RESULTS AND DISCUSSION

Our empirical research seeks to provide light on the impact of GST on India's foreign trade. Since the implementation of GST, several articles have stated that GST would change the way businesses operate in India and would have a substantial influence on foreign trade of commodities since it altered the structure of imports and export taxation and eliminated many indirect taxes and exemptions. However, there has been no empirical study that reveals the influence of GST on foreign trade, leaving the question of whether GST supports or hinders imports and exports of goods and services unresolved. Hence, We use the VECM model to put the research topic to the test.

4.1. Unit root test:

To begin, Augmented Dickey-Fuller (ADF) root tests were used to determine if the series was stationary or not. The Schwarz Information Criterion (SC), Akaike Information Criterion (AIC), and Hannan-Quinn Information Criterion (HQ) were used to estimate the lag duration during the unit root tests, the results of which are accessible on demand. Table 2 shows the ADF unit

² URL: <https://www.gst.gov.in/download/gststatistics> (accessed on 10.02.2022).

³ URL: <https://fred.stlouisfed.org/tags/series?t=gdp%3BIndia%3Bquarterly> (accessed on 10.02.2022).

Table 3

Johansen cointegration test

Estimated Models	Maximum rank	LL	Eigen Value	Trace Statistic	5% critical value
Imports	0	516.31	–	111.733	68.52
	1	543.51	0.693	57.33	47.21
	2	556.43	0.429	31.482	29.68
	3	567.77	0.389	8.803*	15.41
	4	570.58	0.114	3.190	3.76
	5	572.17	0.067		
Exports	0	502.85	–	108.26	68.52
	1	529.66	0.688	54.65	47.21
	2	542.53	0.428	28.91*	29.68
	3	552.57	0.353	8.82	15.41
	4	555.41	0.111	3.14	3.76
	5	556.98	0.066	–	–

Source: authors' estimations using STATA.

Note: *Acceptance of null hypothesis of no cointegration because Trace value is more than critical value.

root test findings for the variables utilised in this investigation.

The results of the ADF tests performed on the variable levels demonstrate that the variables were not stationary, however their first-degree differences were, showing that the variable difference was stationary.

4.2. Co-integration test

Because all of the variables in the model were found to be stationary at the first degree, a co-integration analysis was carried out. The Johansen–Juselius (JJ) test was utilised in the study for co-integration analysis, and the findings are shown in *Table 3*. The Trace statistic and Eigenvalue are both employed in the cointegration test result to assess the number of cointegrating equations to the 5% (.05) critical value. In this study, we only give trace statistics; eigenvalues will be accessible upon request. If the trace value is smaller than the crucial value, the null hypothesis of no cointegration is accepted.

The results for imports reveal that there are three cointegrating equations at a 5% level of significance using the Trace statistic. As a result, at most three cointegrating equations exist, indicating the presence of long-run interactions between the variables in the system. In a nutshell, the null hypothesis of no

cointegration is rejected in the model in favour of the alternative of cointegrating linkages.

The export statistics, on the other hand, demonstrate that there are two cointegrating equations at a 5% level of significance under the Trace statistic. As a result, at most two cointegrating equations exist, indicating the presence of long-run interactions between the variables in the system. However, because the prevailing result demonstrated the existence of long-run interactions among the variables in the system, the VECM rather than the VAR model estimate is required.

4.3. Vector Error Correction (VECM) Model

Based on the normal pre-testing of the variables of interest, the Johansen cointegration test result revealed the presence of a cointegrating equation in the model, which goes a long way toward confirming the existence of long-run linkages among the variables in the model. Furthermore, the lag order selection criterion revealed that Lag 2 is the proper or optimal lag selection based on the SC, AIC, and HQ. As a consequence, the VECM estimate is the best model for examining the short-run speed of adjustment from equilibrium; accordingly, the conclusion is presented and analysed as follows:

Table 4

The vector error correction model (VECM) test results for Imports

Variables in Logarithms	Coefficients	Standard Error	t statistics	Probability
Long-Run Scenario				
GST	0.927	0.130	-7.12	0.000***
GDP	0.249	0.300	-0.83	0.040**
TO	-0.759	0.359	2.11	0.035**
ER	0.655	0.189	-3.46	0.001***
Short-run Scenario (error correction)				
Cointegrating equation	-0.048	0.122	0.40	0.069*
GST	0.007	0.018	0.41	0.680
GDP	-0.648	0.488	-1.33	0.184
TO	-0.451	0.341	-1.32	0.187
ER	-2.427	1.387	-1.75	0.080*
Constant	0.006	0.008	0.70	0.487

Source: authors' estimations using STATA.

Note: *, ** and *** denote significance at the 10%, 5% and 1% levels, respectively.

Table 5

The vector error correction model (VECM) test results for Exports

Variables in Logarithms	Coefficients	Standard Error	t statistics	Probability
Long-Run Scenario				
GST	1.927	0.262	7.35	0.000***
GDP	2.777	0.606	-4.58	0.000***
TO	1.852	0.380	-4.86	0.000***
ER	1.209	0.723	-1.67	0.095*
Short-run Scenario (error correction)				
Cointegrating equation	-0.145	0.084	-1.73	0.043*
GST	0.35	0.025	1.38	0.016**
GDP	0.713	0.805	0.89	0.037**
TO	0.584	0.547	1.07	0.286
ER	-4.063	1.890	-2.15	0.032**
Constant	0.006	0.012	0.53	0.599

Source: authors' estimations using STATA.

Note: *, ** and *** denote significance at the 10%, 5% and 1% levels, respectively.

Table 4 and 5 show the VECM estimation results for imports and export respectively. The Johanson approach's expression of the cointegrating link confirmed the presence of long-run correlations among the variables of interest (GST and Foreign trade) in the research. However, the cointegrating finding from the Johansen result served as the foundation for calculating the VECM in order to determine the rate of adjustment from long-run equilibrium to short-run equilibrium [16].

Table 4 shows that in the long term, all factors, particularly GST, GDP, and ER, have a considerable positive influence on imports of goods and services, but TO has a significant but negative influence on imports. In the short run, the cointegrating equation's VECM estimate output shows that the previous year's divergence from long-run equilibrium is rectified in the present period at a rate of roughly 4% (see table 4). In the short run, none of the factors are important.

Table 5 shows that in the long term, all factors, notably GST, GDP, TO, and ER, have a favorable impact on the exports of products and services. While GST, GDP, and TO are statistically significant at 5%, ER is statistically significant at 10% in determining exports in India.

Table 5 also displays the result of VECM model for export in short run. In the short run, the cointegrating equation's VECM estimate output shows that the previous year's divergence from long-run equilibrium is rectified in the present period at an adjustment speed of roughly 14 percent. In the near run, a percentage shift in FD is associated with a 35 percent rise in exports on average ceteris paribus. In the near run, a percentage rise in GDP is associated with a 71 percent increase in exports, ceteris paribus, for the GDP coefficient. In the near run, a percentage rise in TO is connected with a 58 percent increase in exports on average ceteris paribus. Furthermore, in the near run, a percentage rise in ER is associated with a 4% decline in exports on average ceteris paribus. To summarise, all factors except TO are relevant in the short run.

5. CONCLUSION AND IMPLICATION OF STUDY

The level of development of the economic system depends on foreign trade [11, 17]. The strategic

role of foreign trade in providing sustainability to the economic system is that foreign trade is based on the realization of competitive advantages by removing the boundaries and deepening the movement of labour. The introduction of GST in the Indian economy has resulted in a significant improvement in the level of trade and thereby strong economic system. Exports have been more comfortable since taxes on all levels of exports have been reduced, and imports have likewise gotten more convenient and inexpensive. The VECM model was used in the study to assess the impact of GST on imports and exports from July 2017 to June 2021. The findings indicated that GST increases the exports of goods and services in both the long and short run. The VECM model's test statistics revealed that imports rose after the imposition of GST. Because of the emergence of a uniform national market and tax system, GST has simplified commercial operations in India. One apparent result of even taxation and cost-effectiveness due to reduced time and expenses in shipping would be that 'Made in India' items would now be more cost-competitive in global markets.

The theoretical implications of the study are evident through its propensity to address the knowledge gap encompassing an empirical inquiry linking GST and foreign trade scenario in the Indian context. It also established that tax structure requires constant supervision and amendments. The findings drawn from our study are also consistent with the earlier studies [3, 6] which conceptualized that GST will increase foreign trade.

The limitation of this study is that since the GST is implemented four years ago, a short time period of data has been included. Also, GST implementation in India is still in the introduction phase; therefore, not enough panel data could be generated to establish the relationship between GST tax reform and foreign trade state-wise and commodity-wise using econometric modeling. Future studies can show the relationship between the two indicators using quantitative or econometric modeling in a panel to ensure the broader generalizability of the findings. More so, the effectiveness of the GST implementation can also be measured by quantitatively comparing the set objectives with several fiscal indicators.

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N. Singhal — defined the research problem, objectives of the study and developed the conceptual framework of the study.

S. Goyal — analyzed the literature, collected the data and conducted the analysis.

S. Kumari — compiled the tables, interpreted the result, discussed the results.

S. Nagar — wrote the conclusions of the research and implication of the study.

A. Tyagi — drafted the final paper and improve English grammar.

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