A Study on Impact of Foreign Trade on the Economic Growth of India

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Abstract:
This research paper examines the impact of foreign trade on the economic growth of India. It analyzes the relationship between international trade, including both exports and imports, and various economic indicators such as GDP growth, employment, investment, and productivity. By studying the trends in India's foreign trade, exploring the theoretical underpinnings, and analyzing empirical evidence, this research aims to provide insights into the significance of foreign trade for India's economic development.

Keywords: Economic Growth, Growth Rate, Export, Import and Balance of Trade

Introduction

Foreign trade holds immense importance for a nation's economic progress as it has increasingly played a significant role in fostering economic growth and improving the overall well-being of its citizens. Foreign trade encompasses the import and export of goods and services, resulting in the exchange of foreign currency between countries. No country possesses the necessary resources and capabilities to efficiently produce all the goods and services it requires, indicating that self-sufficiency is unattainable. Thus, the need to engage in trade with other nations arises. Foreign trade facilitates access to economies of scale and international specialization, which are products of scientific and technological advancements worldwide. Developing countries, with their rapidly expanding populations, have a greater demand for goods. Exporting goods to the international market can serve as a catalyst for growth, leading to increased earnings from improved marketability of a country's commodities. This, in turn, stimulates domestic industrial activities, resulting in various benefits such as optimal resource utilization, enhanced employment opportunities, and increased foreign exchange reserves. Consequently, foreign trade is viewed as more than a means to achieve productive efficiency; it is considered an engine of growth that significantly contributes to a nation's development. In contemporary development strategies, international trade has become a crucial component and an effective instrument for driving economic growth, generating employment, and alleviating poverty within an economy.

Review of Literature

Sushil Kumar Rai and Purvashree Jhala (2015) conducted a study to examine the relationship between growth rates, exports, and imports in India from 2000 to 2013. They utilized statistical techniques such as the Unit Root test, Pairwise Granger Causality Tests, Co-integration test, and regression analysis to analyze the data. Their findings indicated that exports and imports significantly contributed to the growth rate of the Indian economy during the reform period. The regression analysis revealed that imports had a greater impact on the growth rate compared to exports. The Pairwise Granger Causality test also supported the notion that exports are affected by imports.

Nazaquat Husain (2017) highlighted the period before liberalization when India was intentionally isolated from the global market to protect its economy and achieve self-reliance. The author discussed import tariffs, export taxes, quantitative restrictions, and limitations on foreign direct investment. Following liberalization, India's international trade experienced rapid growth, with the contribution of total trade in goods and services to GDP rising from 16% in 1990-91 to 48.8% in 2014-15. The European Union, China, United States, and United Arab Emirates emerged as India's major trading partners. The major export commodities included gems & jewellery, textiles & allied products, chemical & related products, petroleum crude & products, and agriculture & allied products. Major import commodities included petroleum crude & products, electronic items, gems & jewellery, chemical & related products, machinery & base metals. India achieved an average GDP growth of 6 to 7% annually after economic liberalization, becoming the world's fastest-growing major economy.

Harish Tigari (2018) aimed to analyze the correlation between foreign trade, foreign investment, and GDP growth in the Indian economy. The author employed the Karl Pearson coefficient technique to examine the relationship between these variables.

Pramod R. Botre (2018) focused on India's foreign trade performance and the economic policies related to foreign trade that have contributed to its growth. The author emphasized the meaning, definition, need, and importance of foreign trade, as well as the types of foreign trade. Exporting goods and services generates more foreign exchange, while imports require expenditure of the home currency. International trade involves multiple countries, different currencies, and is regulated by respective laws and regulations, making it complex. The author also discussed topics such as balance of payments, balance of trade, disequilibrium, and India's export and import performance.

Govindan, P (2020) conducted a study investigating the growth of exports, imports, and trade balance in India from 1949-50 to 2018-19. The study also analyzed India's export profile and performance in global trade from 2011 to 2017. Descriptive statistical and inferential statistical techniques such as correlation, regression, ANOVA, and Paired t-test were applied to the research data to test various hypotheses. The study revealed that the United States secured the first position as the destination for India's exports, followed by the United Arab Emirates and China. In terms of imports, China held the first position, followed by the United States and the United Arab Emirates. The top ten export destinations accounted for a significant share during the years 2016-17, 2017-18, and 2018-19. Similarly, the top ten import destinations showed consistent shares during the same years. The paper concluded that India has successfully implemented important commercial, legal, and economic reforms in the past two decades, leading to a positive impact on the business environment for international trade and the potential to strengthen India's positive trade balance position in the future.

Objectives

The study seeks to accomplish the following stated goal:
To assess the influence on India's economic growth.

Methodology of the Study

The study is based on information from RBI's Statistical Handbook that was collected from other sources. After the New Economic Policy of 1991, simple statistical tools like growth rate, percentage share estimates, and simple diagrams have been used to look at the direction and make-up of India's foreign trade.

$$(\mathrm{Grt}) \quad = \frac{(\mathrm{Yt} - \mathrm{Yt} - 1)}{\mathrm{Y}t - 1}\, 100$$

where Gr_t is the growth rate of variable Y for t^{th} time period compared to its previous year and, it is represented as percentages.

To look at how foreign trade affects India's economic growth, a linear regression model was used. The Gross Domestic Product (GDP) at factor cost at constant price was used as a measure of economic growth, and the study's variables were the volume of exports, imports, and economic openness in monetary terms. Before using the Ordinary Least Squares (OLS) method, the Augmented Dickey Fuller (ADF) Test is used to see if the factors are stable. The following model is used to look at how trade affects economic growth.

$$Y_t = \alpha + \beta 1 X_t + \beta 2 M_t + \beta 3 0_t + u_t \mathbf{t= 1,2,3,................................ ,}$$

where α and βs are the co-efficients and u_t is the error term which follows normal distribution with mean zero and variance σ^2. Y_t is the Gross Domestic Product in period t, X_t is the export in time t.M_t is the import in time t. O_t is the economic openness in time t. The openness variable is measured asexports plus imports divided by GDP [O = (X + M)/GDP].

Result and Discussion

Trends and Composition of India's Foreign Trade

The effect of trade changes can be seen in the way that India's foreign trade has changed in terms of trends, markets, and types of goods. Table 1 shows the growth rates of both total exports and total imports from 1990-1991 to 2020-2021. During the 1990s, there were years when Indian products did well and years when they did not. The growth rate was high in 1991-1992, 1993-1994, and 1995-1996, at 35.3%, 30%, and 28.6%, respectively. However, it dropped sharply in 1996-1997, to 11.7%, and stayed low until 1998-1999, because of the South East Asian crisis and the global slump. In 1999-2000, it went back up to 14.2%, and in 2004-2005, it grew at the fastest rate of 28.2%. But because of the global meltdown, the growth rate of exports fell again to 0.57 percent in 2009-10. But the rate of export growth jumped to 35.2% in 2010-2011 and to 28.3% in 2011-2012. But India's exports had a negative growth rate every year from 2014-2015 to 2020-2020, except for 2016-2017 and 2018-2019.In 2020-21, the total amount of exports was Rs. 13512740 crore, which was a decrease of 7.25 percent (Table 1).

On the other hand, the rate of growth of imports went from 17.7% in 1990-1991 to 36.3% in 1995-1996. But it dropped to almost 11% in 1997–98, then went back up to 20,7% in 1999–2000, and hit its best growth rate of 39.5% in 2004–2005. Again, it went down in 2006-07, from 33.8 percent in 2005-06 to 24.5 percent in 2006-07. But the rate of growth of imports went up to 35.7% in 2008-09 and then back down to -0.78% in 2009-10. Lastly, the total value of imports in 2020-21 was Rs. 290,993.7 crore, which was a decrease of 13.4% from the previous year (Table 1).

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Table 1: Trend of Export and Import in India

(Rs. in Crore)

Year	Gross Domestic Product	Growth Rate (%)	Exports	Growth Rate (%)	Imports	Growth Rate (%)	Trade Balance
1990-91	2514549	5.53	32558	17.72	43193	22.26	**-10635**
1991-92	2541123	1.06	44042	35.27	47851	10.78	**-3809**
1992-93	2680438	5.48	53688	21.90	63375	32.44	**-9687**
1993-94	2807779	4.75	69751	29.92	73101	15.35	**-3350**
1994-95	2994747	6.66	82674	18.53	89971	23.08	**-7297**
1995-96	3221584	7.57	106353	28.64	122678	36.35	**-16325**
1996-97	3464798	7.55	118817	11.72	138920	13.24	**-20103**
1997-98	3605116	4.05	130101	9.50	154176	10.98	**-24075**
1998-99	3828072	6.18	139753	7.42	178332	15.67	**-38579**
1999-20	4166694	8.85	159561	14.17	215237	20.69	**-55676**
2000-01	4326736	3.84	203571	27.58	230873	7.26	**-27302**
2001-02	4535456	4.82	209018	2.68	245200	6.21	**-36182**
2002-03	4707984	3.80	255137	22.06	297206	21.21	**-42069**
2003-04	5078049	7.86	293367	14.98	359108	20.83	**-65741**
2004-05	5480380	7.92	375340	27.94	501065	39.53	**-125725**
2005-06	5914614	7.92	456418	21.60	660409	31.80	**-203991**
2006-07	6391375	8.06	571779	25.28	840506	27.27	**-268727**
2007-08	6881007	7.66	655864	14.71	1012312	20.44	**-356448**
2008-09	7093403	3.09	840755	28.19	1374436	35.77	**-533681**
2009-10	7651078	7.86	845534	0.57	1363736	-0.78	**-518202**
2010-11	8301235	8.50	1142922	35.17	1683467	23.45	**-540545**
2011-12	8736329	5.24	1465959	28.26	2345463	39.32	**-879504**
2012-13	9213017	5.46	1634318	11.48	2669162	13.80	**-1034844**
2013-14	9801370	6.39	1905011	16.56	2715434	1.73	**-810423**
2014-15	10527675	7.41	1896445	-0.45	2737087	0.80	**-840642**
2015-16	11369493	8.00	1716384	-9.49	2490306	-9.02	**-773922**
2016-17	12308193	8.26	1849434	7.75	2577675	3.51	**-728241**
2017-18	13144582	6.80	1956515	5.79	3001033	16.42	**-1044518**
2018-19	14003316	6.53	2307726	17.95	3594675	19.78	**-1286949**
2019-20	14569268	4.04	2219854	-3.81	3360954	-6.50	**-1141100**
2020-21	**13512740**	**-7.25**	**2154339**	**-2.95**	**2909937**	**-13.42**	**-755598**

Source: Directorate General of Commercial Intelligence and Statistics.

Using factors that don't stay the same might lead to false regression, which cannot be used to make accurate predictions (Gujarati, 2003). So, the first thing we need to do is figure out if the variables have unit roots, if it is stable, and what the order of integration is. Augmented Dickey-Fuller (ADF) test is used to find out if the factors being looked at are stable. The result of the unit root test and the order of integration are shown in Table 2. All of the factors can be seen to stay the same.

Table 2:Unit Root Test Summary Statistics (Augmented Dickey-Fuller)

Variables	ADF TestStatistics	Critical Values			Order of Integration
		1%	5%	10%	
GDP	4.439	-3.750	-3.000	-2.630	I(0)
Export	5.155	-3.750	-3.000	-2.630	I(0)
Import	5.004	-3.750	-3.000	-2.630	I(0)
Economic Openness	2.666	-3.750	-3.000	-2.630	I(0)

Source: Calculated on the basis of Statistical Handbook on Indian statistics 2020-21.

Table 3 shows what the regression study found about how foreign trade affects economic growth. The value of R2 in the model is 0.98, which means that the independent factors of the model explain 98 percent of the difference in the dependent variable. The independent factors of the study cannot explain why the dependent variable changed by 1%.

Table 3:Impact of Trade on Economic Growth (GDP)

Variables	Co-efficient	t-values	Prob. Value	ANOVA
Intercept	3323303*	10.75341	1.890877	R^2 = 0.961 Adj. R^2 = 0.956 F Stat. = 230.5261*
Export	5.313082*	2.434889	0.021523	
Import	0.052192*	0.0333	0.973672	
Economic Openness	-4075731*	-1.32387	0.196252	

Source: Calculated by Statistical Handbook on Indian Statistics 2020-21. Note:* denotes parameters are significant at less than one per cent.

Asymptotically, the modified R2 shows that the factors can explain about 95% of the total difference. The conclusion is that the model is well-fitting. The F-statistic tests how important the model being studied is in general. The F-statistic number is 230.52, which is a big deal. The results of regression analysis show that export and import have a big positive effect on GDP, while economic freedom has a negative effect on GDP. The figures show how important foreign trade is to the growth and development of the Indian economy. Even though economic openness has a negative relationship with GDP, exports show that the general effect of trade on economic growth is positive and very important (Table 3).

Conclusion

During the study period, it has been noted that India's total exports have shown an upward trend following the implementation of the New Economic Policy. Despite experiencing a persistent deficit in the balance of payments, India's overall prosperity remains boundless. Although the GDP growth rate has fluctuated, the volume of trade has been steadily increasing. The study reveals that there has been a significant rise in the share of imports of petroleum, crude products, and other non-bulk items, while the imports of food grains and export-related items have declined. Furthermore, the findings suggest that the post-liberalization era has played a crucial role in India's high economic growth, with a rapid increase in imports of capital goods and technical raw materials to support industrialization, as well as growing imports of petroleum products to meet industrial and consumer demands. While imports have been found to have a negative impact on economic growth, the study highlights that the volume of trade, as reflected by economic openness, has a positive influence on India's economic growth, and this positive impact is continuously strengthening.

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