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India's Trade Relation With Usa: A Study Of Pharmaceutical Exports

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ABSTRACT:

India has been a major player in Exports of Pharmaceuticals. Its trade relation with U.S.A. has played a significant role in the India's role as an exporter. Pharmaceutical exports are a major part of the overall export from and to a country. This study is an attempt to analyze the trade relation of India and U.S.A in respect of pharmaceuticals. This study examines India's trade relationship with the United States, with a specific focus on the pharmaceutical exports sector. India has emerged as a significant player in the global pharmaceutical industry, and its exports to the United States have seen substantial growth in recent years. The research delves into the key drivers behind this trade relationship, exploring factors such as regulatory frameworks, market dynamics, and the role of Indian pharmaceutical companies. By analyzing the nuances of this trade, the study aims to provide insights into the opportunities and challenges faced by India in the context of pharmaceutical exports to the USA, as well as the broader implications for the pharmaceutical trade landscape.

Keywords: Pharmaceutical exports, India-US Trade, Pharmaceutical trade, pharma export

INTRODUCTION:

India is a major exporter of Pharmaceuticals, with over 200 countries served by Indian medicinal exports. India supplies over 50 of Africa's demand for generics, 40 of general demand in the US and 25 of all drug in the UK. India also accounts for 60 of global vaccine demand, and is a leading supplier of DPT, BCG and Measles vaccines. 70 of WHO's vaccines (as per the essential Immunization schedule) are sourced from India.

The Indian medicinal request is supported by the following product Linked incitement Schemes to boost domestic manufacturing capacity, including high- value products across the global force chain. Rising exports from the United States of America, Mexico, and Canada generally contribute to job creation in each respective country. However, surges in imports tend to diminish domestic employment opportunities by displacing goods

that could have been produced by local workers in Mexico, Canada, or the United States. Focusing solely on exports and neglecting imports is akin to managing a financial account by considering only deposits and disregarding withdrawals *(Shrivastava 2017)*

PLI Scheme for Key Starting Accoutrements (KSMs) medicine interceders (DIs) and Active Pharmaceutical constituents (APIs) (PLI1.0)- Under the PLI scheme for Bulk medicines, the ideal is to boost domestic product of 41 select critical bulk medicines in the country. 51 systems have been named for the 34 notified bulk medicines. Out of this, 22 systems have been commissioned till 31st January 2023. An investment of INR 2019 crores have been reported while employing 1900 persons in the same period.

Product- Linked incitement (PLI) Scheme for Pharmaceuticals d(PLI2.0)- Under the PLI scheme for medicinal, 55 aspirants have been named, including 20 Micro, Small & Medium Enterprises(MSMEs). As of 31st January 2023, deals of about INR 36,000 cr have been reported by the select aspirants. The scheme has garnered an investment of INR 16,199 crore by these aspirants in the first time of perpetration while employing 23,000 persons in the same period.

In recent times India has made progress in expanding their investment base in the United States of America along with this major US companies have entered the Indian request like AT&T and Qualcomm. In the once times, India has exported nearly lacs value of medicinal to The United States with a growth rate of14.26. India holds 18th Position in US import and import. India and The United States of America are making sweats to strengthen their bilateral profitable relations.

LITERATURE REVIEW:

Akhtar, G. (2013) concludes that the pharmaceutical industry contributes to the welfare of humanity and offers significant socioeconomic benefits to the society through the creation of jobs, supply chains, and community development in his research paper, Indian pharmaceutical industry: an overview, published by IOSR journal of Humanities and Social Science, 13(3), 51–66. The sector contributes significantly to technical advancement, which could lower the costs of economic activities elsewhere in the economy. IPI is one of the biggest and most developed industries in the world, ranking fourth in terms of volume and thirteenth in terms of value. According to estimates, the nation produces 10% of the world's drugs and controls 2% of its markets. It has developed its technological capacity and infrastructure significantly over the years, leading to the production of a variety of pharmaceutical products. All significant therapeutic classes are now covered by the industry's bulk medication production. It has a sizable technical labor force that excels at upstream and downstream processing. A capital investment of around US$4.1 billion has been made. In 2008, it manufactured formulations worth $15.4 billion and bulk medications for 3.5 billion dollars. In the 1990s, formulation grew at a rate of 24% and bulk pharmaceuticals at a rate of about 14%. R&D is receiving more attention and funding. It supplies 29 million people with jobs. The pharmaceutical industry makes up 12% of the manufacturing sector's GDP and contributes 2% to India's overall GDP.

In his article The emergence of India's pharmaceutical industry and implications for the US generic drug market, Greene, W. (2007) notes that India's pharmaceutical industry has gone from being virtually nonexistent to a global leader in the production of high-quality, reasonably priced non-branded or generic drugs, accounting for close to 20% of global production. With the establishment of their own production and R&D facilities, numerous MNCs have started to reenter the Indian pharmaceutical market as of 2005. The cost advantages that Indian pharmaceutical companies currently enjoy will progressively be offset by this. The leading pharmaceutical producers in India will be able to re-direct significant amounts of their cash flow to R&D and advance up the value-added chain thanks to these alliances and the millions of dollars spent on establishing domestic and foreign-based manufacturing facilities, purchasing foreign drug manufacturing firms, and building marketing and sales networks.

The findings reported in this paper have significant implications for theory and practice, according to Chittoor, R., and Ray's research paper, Internationalization paths of Indian pharmaceutical firms—A strategic group analysis, published in Journal of International Management, 13(3), 338–355. The study reviews data from the Indian pharmaceutical business, examines the limited current theory on the internationalization strategies of emerging market firms, and provides fresh insights based on inductive and deductive reasoning.

Pradhan, J. P. (2006) in her paper, Global competitiveness of Indian pharmaceutical industry: trends and strategies drew the inference that the Indian pharmaceutical sector has come a long way from being solely dependent on imports to becoming a self-sufficient manufacturer and later a competitive developing nation in the global market. In order to safeguard the native pharmaceutical industry from being overtaken by major global corporations, the Indian government has used a number of different policy strategies. The first instance of government interference was the establishment of public sector pharmaceutical corporations for domestic drug production. A domestic sector that is technologically vibrant and has exceptional technological capabilities to develop new cost-effective methods and novel medicine delivery systems has emerged as a result of the adoption of a soft patent regime in the years after. The development of India's scientific, managerial, and general talents, which are easily and affordably available to the business for productive reasons, has also played a role in this technological expansion. Thus, these national regulations have aided in the growth of the Indian pharmaceutical industry and helped it become one of the most competitive medication makers globally.

OBJECTIVE:

(i) To analyse the significance of exports with USA and its role in India’s trade basket.

(ii) To study the pharmaceutical industry of India.

(iii) To study the trade relation between India and US.

HYPOTHESIS:

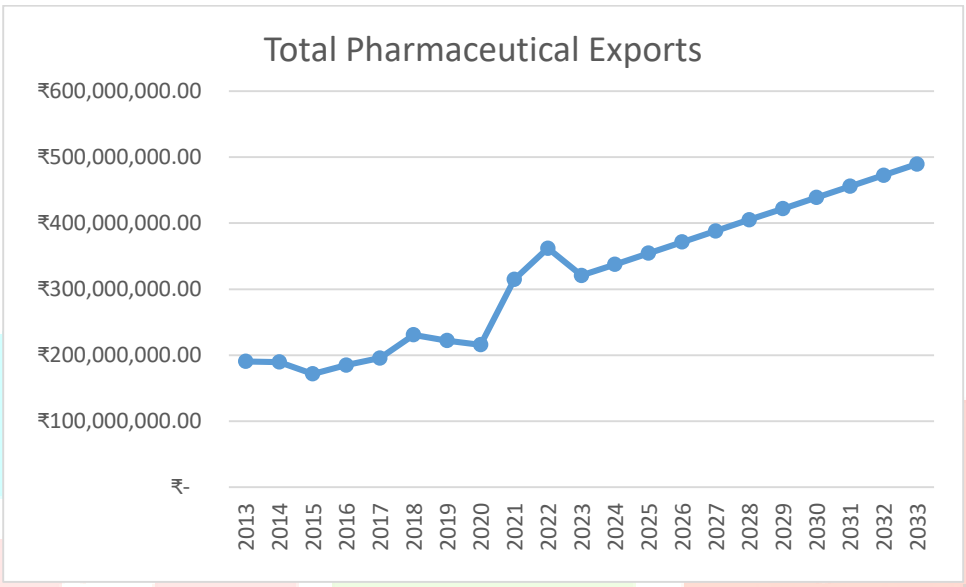
H0- There is no significant impact of exports between India and U.S.A.

H1- There is a significant impact of exports between India and U.S.A.

H0- There is no significant impact of pharmaceutical exports between India and U.S.A.

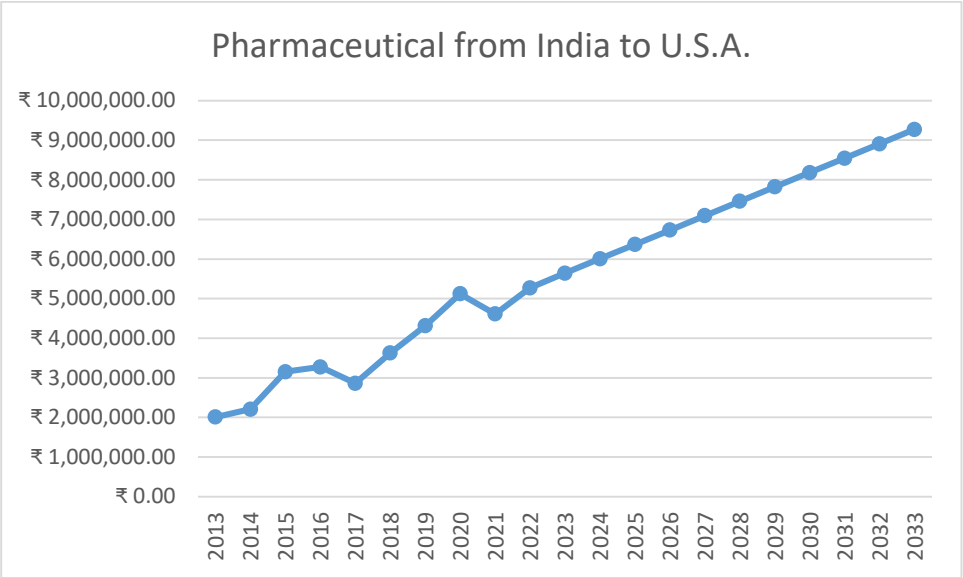
H2- There is a significant impact of pharmaceutical exports between India and U.S.A.

DATA ANALYSIS:



(Fig. 1)

In figure 1, it can be observed that there is a volatility in the total pharmaceutical exports of India. The graph can be understood in three phases, the first from year 2013- 2020, the second phase from 2020-2024, and the third of expected exports, from year 2024-2033. Phase 1 shows steady exports ranging in between Rs. 20,00,00,000 to Rs. 30,00,00,000. Phase 2 shows a sharp increase in exports of total pharmaceuticals from Rs. 20,00,00,000 to near Rs. 40,00,00,000. The reason for this can be COVID-19 which is suggested by Ahmed, A., Chakraborty, D., & Bhattacharyya, R. (2020) in their research work, The recent coronavirus (COVID-19) pandemic the surplus demand is anticipated to persist given the rising need for numerous medications in the wake of the COVID-19 outbreak, for both therapeutic and prophylactic purposes. A review of issues for Indian pharmaceutical exports, published in *Foreign Trade Review*, *55*(3), 418-435 stated that the patterns of trade specialization, as proposed by the pure theories, can satisfactorily explain why the production chain's comparatively lower value-added parts should flow toward lower-income nations. Phase 3, the expected exports depict that there will be a gradual increase in the total pharmaceutical exports ranging in between values of Rs.35,00,00,000 to Rs.50,00,00,000.



(Fig. 2)

In Fig. 2, it can be observed that the exports from the year 2013-2017 were less than Rs.40,00,00,000 (appx.) and then showed an upward curve indicating a continuous increase in the exports from India to U.S.A. from the year 2018-2020. There were comparatively less exports of pharmaceuticals to U.S.A in the year 2022 valuing to Rs. 49,00,00,000. The trend analysis for expected exports from the year 2023-2033 shows that there will be a constant increase in exports of pharmaceuticals from India to U.S.A.

TEST APPLICATION:-

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	.724[a]	.524	.464	45398349.985	.524	8.805	1	8	.018	1.281

a. Predictors: (Constant), Pharmaceutical Exports from India to USA

b. Dependent Variable: Total Exports of pharmaceuticals from India.

(Table 1)

In the above table, R represents the correlation coefficient, which measures the strength and direction of the linear relationship between the independent variable (Pharmaceutical Exports to U.S.A.) and the dependent variable (Total Exports of Pharmaceuticals from Indian). In this case, R is 0.724, which means there is a moderately strong positive linear relationship between the variables. R Square is the coefficient of determination, which tells you the proportion of the variance in the dependent variable that can be explained by the independent variable(s). An R^2 of 0.524 means that 52.4% of the variance in the dependent variable is explained by the independent variable. This suggests that the regression model is a moderately good fit for the data. The adjusted R Square of 0.464 means that after considering the number of independent variables, 46.4% of the variance in the dependent variable is still explained by the model. It is slightly lower than the R Square, which is expected

when you have multiple independent variables. The standard error is 45,398,349.985, which means that, on average, the actual values of the dependent variable are expected to deviate from the predicted values by approximately 45,398,349.985 units.

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1.815E+16	1	1.815E+16	8.805	.018[b]
	Residual	1.649E+16	8	2.061E+16		
	Total	3.463E+16	9			

a. Dependent Variable: Total Exports of Pharmaceuticals from India

b. Predictors: (Constant), Pharmaceutical Exports from India to USA

(Table 2)

In this analysis, the "Sig." value is reported as 0.018b. Since this p-value is less than the typical significance level of 0.05, it implies that at least one of the independent variables in our regression model has a statistically significant relationship with the dependent variable. In other words, we have evidence to reject the null hypothesis that no relationship exists. This suggests that the model, with the predictors included, provides valuable information for explaining the variation in the dependent variable. Further analysis is needed to identify which specific independent variable(s) are contributing significantly to the model and to better understand the nature of the relationships observed.

CONCLUSION

A study of Indo-US trade relations, particularly in the context of pharmaceutical exports, reveals a multifaceted and dynamic landscape. India has become a global pharmaceutical power, supplying essential medicines and vaccines to a significant part of the world and population. It plays an important role in fulfilling the health services of many countries, including the United States. India's pharmaceutical industry has grown significantly and this is reflected in the boom in pharmaceutical exports to the United States. The volatility of the data can be divided into three distinct phases: stable exports from 2013 to 2020, high export growth from 2020 to 2024, and expected steady growth from 2024 to 2033. The sharp increase in pharmaceutical exports in the second phase is due to the COVID-19 pandemic, which has increased the demand for various medicines and vaccines worldwide. India's ability to meet the growth in demand demonstrates its critical role in global healthcare and exports.

The importance of India-US trade relations, particularly in the pharmaceutical sector is one of a kind as both countries continue their efforts to strengthen their bilateral economic ties and address global health issues, it is clear that India’s role as a pharmaceutical exporter remains central to the supply of essential medicines and vaccines, not just to the United States. But also to the world population. Future developments in pharmaceutical exports from India to the US are expected to continue to grow, reflecting the flexibility and adaptability of the

industry. This study sheds light on the importance of this business relationship and its impact on the Indian business landscape.

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