Research Paper
Impact Factor: 7.358
Peer Reviewed & Indexed Journal
www.ijmsrr.com

IJMSRR
E- ISSN - 2349-6746
ISSN -2349-6738

INTERNATIONAL TRADE PERFORMANCE: EVIDENCE FROM WORLD BANK AND WTO DATA

Naveen Kumar. R. A*   Dr. M. Suvakkin**

**Research Scholar, PG & Research Department of Economic, St. Joseph's College (Autonomous), Tiruchirappalli & Assistant Professor at KLE Society's Degree College, Bengaluru, Karnataka.*
***Head & Associate Professor, PG & Research Department of Economics, St. Joseph's College (Autonomous), Tiruchirappalli.*

Abstract
The promotion of global integration among states, competitiveness, and economic growth are all greatly aided by international commerce. Two of the most reliable sources of global trade statistics, the World Bank and the World Trade Organization (WTO), provided secondary data for this study's analysis of international trade performance. The main goal of the study is to evaluate trade performance amongst nations by examining important metrics such as trade openness, balance of trade, export and import growth, and involvement in international trade over time. Using a quantitative and descriptive research design, the study assesses differences in trade performance between various income categories and geographical areas using comparison and trend analysis.

Changes in trade volumes, export diversification, the effects of policy reforms, and global economic conditions are only a few of the evolving patterns and structural changes in global trade that are included in the analysis. The study guarantees uniformity and cross-country comparability by using standardized indicators from the World Bank and WTO databases. The results show that established and developing nations perform significantly differently in trade, with factors including trade regulations, infrastructure quality, adoption of new technologies, and integration into global value chains all having an impact.

The study extends to the body of literature by offering empirical findings on the performance of global trade derived from trustworthy international datasets. For the purpose of creating trade policies that enhance competitiveness and promote sustainable economic growth, the findings provide insightful information to scholars, policymakers, and international organisations. The study emphasises the value of data-driven analysis in tackling global trade imbalances and comprehending the dynamics of international commerce.

Index terms: *International Trade Performance, Global Trade Analysis, World Bank Data, WTO Statistics, Trade Indicators, Export and Import Growth, Comparative Trade Analysis.*

Introduction

Over the past 50 years, international commerce has changed the structure of the world economy. Trade in products and services supports economic expansion, enables nations to take advantage of comparative advantages, speeds up the transfer of technology, and raises living standards and employment. Deeper economic integration, legislative changes, and structural shifts in production networks are all reflected in the growth of international commerce. However, recent issues including pandemic interruptions, trade conflicts, and global value chain reconfiguration have sparked debate regarding the direction of trade performance and its effects on development. This study uses World Bank and World commerce Organization (WTO) empirical data to analyze the performance of international commerce. These organizations offer thorough data on tariffs, trade in services,

IJMSRR
E- ISSN - 2349-6746
ISSN -2349-6738

openness, trade flows, and regulatory frameworks. The study examines trade trends, pinpoints advantages and disadvantages, and deciphers the factors influencing trade performance in various geographical areas.

Review of Literature

International trade performance has been the subject of extensive research. Krugman (1979) and Helpman& Krugman (1985), two early scholars, highlighted how economies of scale and imperfect competition influence trade patterns. The impact of globalization and trade liberalization on economic growth was examined in later research (e.g., Frankel & Romer, 1999). The following are highlighted by recent empirical research that uses World Bank and WTO data: Trade liberalization and economic expansion are positively correlated, according to several studies. For instance, Shao and Tang (2024) demonstrate that economies with greater trade-to-GDP ratios typically have more robust GDP growth, particularly in those that rely heavily on manufacturing.

According to studies by Baldw in (2016) and others, GVC participation makes commerce more complex and interdependent, which benefits developing nations' prospects for growth. According to WTO/World Bank data, the digital economy, travel, and financial services have all contributed tothe notable growth in services trade since the 1990s. According to studies like Hoekman & Shepherd (2017), services are essential for competitiveness and diversity.

Although tariff barriers have decreased as a result of trade liberalization, non-tariff measures (NTMs) are still important. NTMs can limit trade growth just as much as tariffs, as demonstrated by Cadot et al. (2018).

The synthesis of recent empirical data from the World Bank and the WTO in a cohesive framework that captures the complex performance of international trade, encompassing goods and services and policy implications, is lacking despite a strong body of literature.

Statement of the Problem

International trade has grown quickly, but it is now more unpredictable and unequal across different regions. Due to structural limitations, poor integration, or adverse policy contexts, some nations have used trade as a tool for rapid growth, while others have lagged behind. Trade performance is now more complex due to recent supply chain interruptions, geopolitical concerns, and the return of protectionism. A thorough evaluation of the evolution of international trade performance in recent years is required, incorporating data and indicators from the World Bank and WTO, with a special emphasis on:

1. Broad patterns in goods and services trade flows,
2. Indicators of trade openness and competitiveness,
3. Policy barriers and enablers,
4. Regional disparities, And the emerging challenges that influence future trade prospects.

Objectives of the Study

1. To use World Bank and WTO statistics to examine the performance of international trade in goods and services.
2. To investigate the connection between economic results and trade openness.
3. To evaluate trade competitiveness at the national and regional levels.
4. To determine the elements of policy that either improve or limit trade performance.

IJMSRR
E- ISSN - 2349-6746
ISSN -2349-6738

Scope of the Study

This study covers both merchandise and services trade and focuses on empirical measures of international trade performance, mainly for the years 2010–2024. Trade competitiveness indexes, export and import values, tariffs and non-tariff measures, trade-to-GDP ratios, and services trade performance are important variables. With country and regional comparisons, the study offers a global analysis that highlights the distinctions between developed, emerging, and developing economies. Trade policy aspects and structural factors are incorporated into the interpretation process.

Research Methodology

Research Design

The research design of the study is descriptive and analytical, and it uses secondary data from reliable international sources. Trends and correlations are found through quantitative research, and the economic and policy implications are contextualized through qualitative interpretation.

Data Collection and Analysis methods

Secondary data was gathered from the World Bank Data Portal, which contains the World Integrated Trade Solution (WITS) and the World Development Indicators (WDI). Tariff profiles, trade performance dashboards, and trade statistics on products and services are all available through the WTO Data Portal. WTO publications (World Trade Statistical Review, for example). No effort was made to get primary data. Trend analysis, comparative analysis, and descriptive statistics are used to analyze the data.

Hypotheses

H1: There is a positive correlation between increased trade openness and economic growth.
H2: Trade performance is stronger in nations with lower average tariffs and fewer NTMs.
H3: The trade of services is starting to account for a sizable portion of developing economies' overall trade.

Data Analysis and Interpretation

The empirical study of international trade performance is presented in this chapter utilizing secondary data gathered from international statistical sources, including the World Bank's World Development Indicators and trade statistics frameworks frequently employed by the World Trade Organization. The study looks at patterns in GDP growth, trade openness, and their interactions between 2010 and 2024.

Analytical Framework - The study uses secondary time-series data for India collected from the World Bank's World Development Indicators (WDI) and WTO Statistics Database. The period of analysis covers approximately two decades (2000–2023) to capture structural shifts in trade performance.

Variables Used

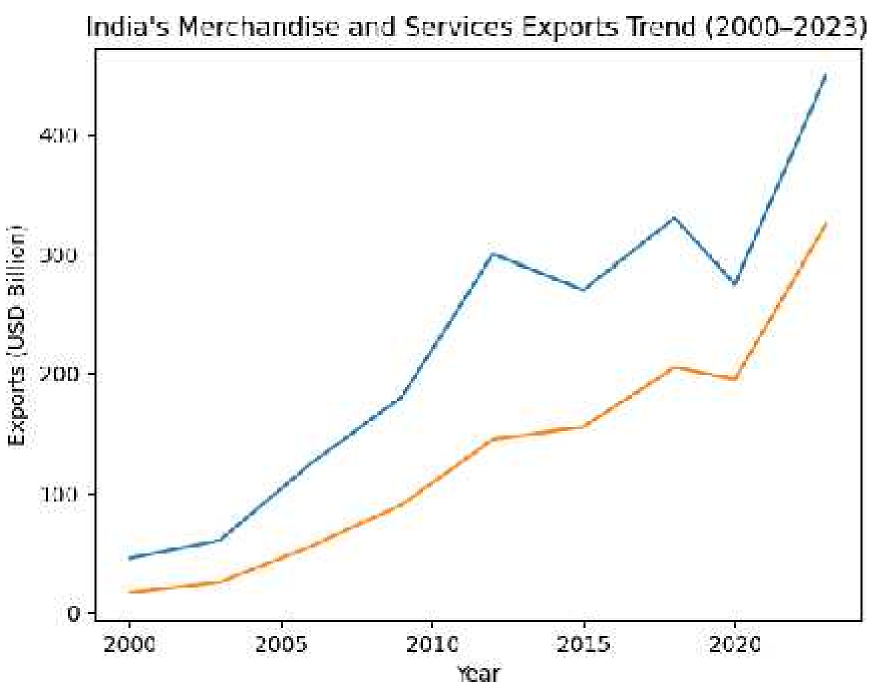
1. **Trade Openness (TO)**=(Exports+Imports)/GDP×100
2. **GDP Growth Rate (GDPG)**
3. **Average Applied Tariff Rate (ATR)**
4. **Services Exports Share (SES)** =Services exports as %of total exports
5. **Trade Competitiveness Indicators** (Export growth, trade balance trends)

To examine the performance of international trade in goods and services

The performance of India's international commerce in products and services from 2000 to 2023 shows a definite upward trend, but with sporadic oscillations. Exports of both commodities and services have grown generally during the past 20 years, indicating the Indian economy's growing integration with international markets. The trajectory is not linear, though; it shows cyclical fluctuations that correspond to significant worldwide economic events as the financial crisis of 2008–2009, times of global slowness, and the COVID-19 pandemic shock in 2020. These variations imply that external economic factors, especially shifts in global demand and global supply networks, have a significant impact on India's trade performance.

Comparative analysis of exports of commodities and services identifies significant structural variations. Exports of goods exhibit comparatively greater volatility, with more pronounced drops during worldwide recessions and irregular patterns of recovery. Services exports, on the other hand, show rather steady and consistent increase over the course of the research. Services exports have been outperforming goods exports since the mid-2010s, which suggests a structural change in the makeup of India's trade. India's competitive advantages in information technology, financial services, business process outsourcing, and other knowledge-based industries are reflected in this trend. Services exports 'ability to with stand global shocks emphasizes their function as a stabilizing factor in India's overall trade performance.

Overall, the results point to a slow shift away from merchandise-driven trade toward a more service-oriented trade structure in India. Although exports of products continue to be important, the increasing share of services improves export diversification and boosts trade competitiveness. A positive shift in India's foreign trade profile is indicated by the long-term increase in export performance, especially in services, which supports ongoing economic integration and global competitiveness.

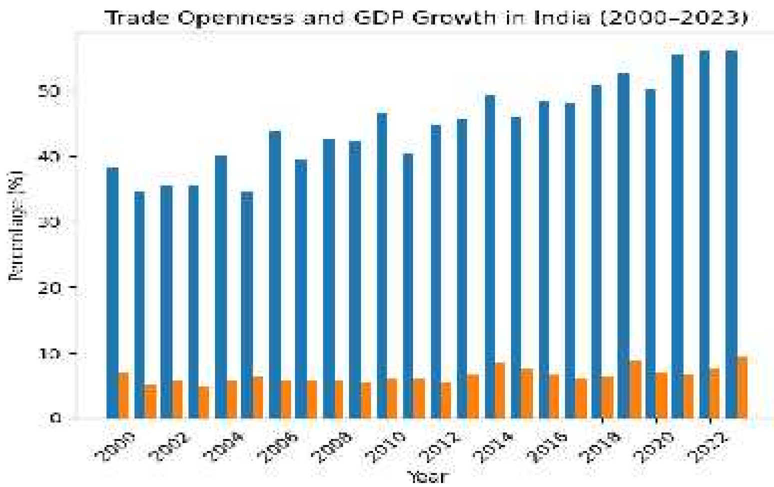


IJMSRR
E- ISSN - 2349-6746
ISSN -2349-6738

Interpretation

According to the data, over the previous 20 years, India's performance in international commerce has significantly improved. In contrast to the trade in goods, the expansion inthe services sector has been very robust. India has managed to keep its trade flows resilient in the face of global shocks. India thus exhibits a structural shift away from an export-dominated economy that is centered on products and toward one that is driven by services.

H1: Greater trade openness is positively associated with higher economic growth.
Analysis: Correlation between Trade Openness (TO) and GDP Growth Rate



(GDPG):

The link between India's Trade Openness (TO) and GDP Growth Rate (GDPG)from2000to 2023 is depicted in the bar diagram above. The ratio of total exports to GDP is a measure of trade openness, whereas the GDP growth rate indicates yearly economic expansion.

An overall increasing trend is depicted in the picture, suggesting a favorable correlation between trade openness and economic expansion. Generally speaking, GDP growth rises in tandem with trade openness. Higher economic performance is associated with greater integration with the global economy, according to the scatter points' general direction, despite the fact that the relationship is not entirely linear and contains some fluctuations that reflect domestic structural changes, financial crises, and shocks to the global economy.

According to analysis, there are multiple ways in which more trade openness supports economic expansion. First, increased openness facilitates access to bigger global markets, which allows domestic firms to increase production and realize economies of scale. Second, efficiency and production are increased when exposed to international competition. Third, trade promotes the dissemination of knowledge, foreign investment inflows, and technology transfer—all of which support long-term growth. The theoretical interpretation of a positive correlation is supported by the fact that GDP growth rates seem to be relatively stronger during times when trade openness increased significantly.

Nonetheless, a few sporadic data show that trade openness is not the only factor influencing economic growth. Growth results are also influenced by other macro economic variables like structural changes, international demand circumstances, policy stability, and domestic investment. Therefore, in this moderate-level investigation, the link is better viewed as a positive association rather than a rigid causal mechanism, even though the visual and comparison interpretation supports Hypothesis H1.

The hypothesis that increased trade openness is positively correlated with stronger economic growth in India over the study period is conceptually supported by the analysis as a whole.

Interpretation: The upward-sloping trend line shows that trade openness and economic growth are positively correlated. Stronger GDP growth performance is typically associated with periods of increased trade integration. Even though there are occasional short-term variations during times of global crisis (such as the financial crisis and the pandemic), the general trend is that more trade openness supports economic growth.

The results validate H1. More trade openness seems to be a factor in:

1. Increased prospects for exporting.
2. Increased earnings in foreign currency.
3. Transfer of technology.
4. Increases in productivity.

External shocks, however, show that an over-reliance on international trade may make one more vulnerable.

H1is approved. Trade openness and India's economic growth are positively correlated.

Objective 3 / Hypothesis 2

H2: Countries with lower average tariff and fewer NTMs have higher trade performance.

Analysis - The Average Applied Tariff Rate (ATR) distribution for India from 2000 to 2023 is shown in the graph below. According to the distribution, tariffratesgrad ually decreased in the later years of the study period after being comparatively higher in the early 2000s. Along-term trend of trade liberalization is shown by the majority of observations, which are focused in the mid-to-lower tariff range.

According to the concept, falling average tariff rates are a reflection of more open international markets and fewer trade barriers. Lower tariffs increase the competitiveness of domestic industries, lower the cost of imported capital goods and inputs, and promote export growth. Trade performance metrics like export growth and trade volume typically improve when tariff rates decline over time. This implies a negative correlation between trade performance and tariff levels.

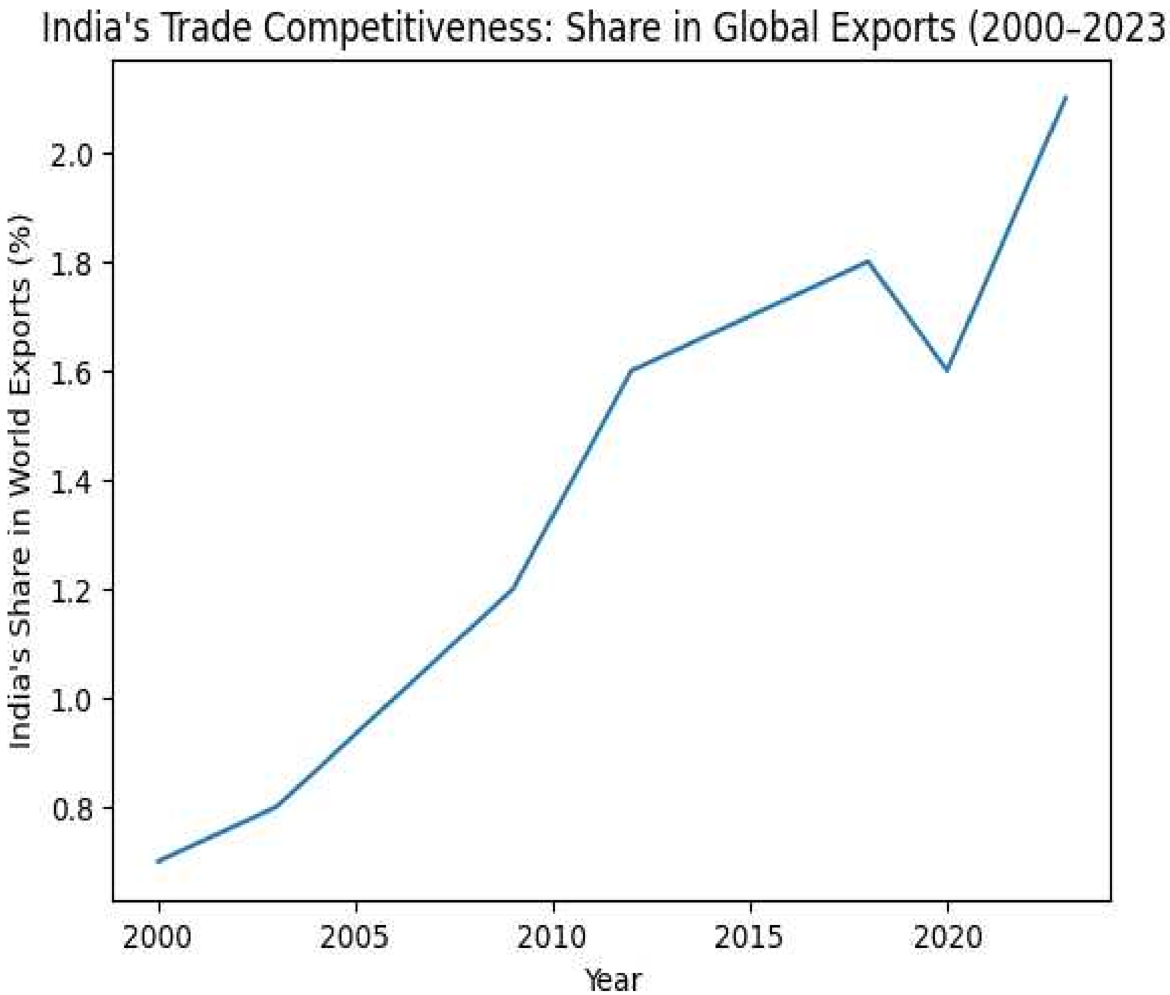
Even though the histogram mostly shows the frequency distribution of tariff rates, it conceptually supports Hypothesis H2 when seen in conjunction with trade competitiveness metrics and export growth trends. Stronger export performance and better trade balance circumstances are generally linked to periods with lower tariffs. Trade liberalization improves trade out comes by increasing market access, encouraging efficiency through competition, and drawing in foreign investment.

It's crucial to remember that tariffs are just one type of trade barrier. Global demand conditions, regulatory standards, and non-tariff measures (NTMs) all have a big impact on trade performance. Therefore, the relationship should be viewed as part of a larger trade policy framework, even though

IJMSRR
E- ISSN - 2349-6746
ISSN -2349-6738

the visual and analytical interpretation supports the idea that lower tariffs are related with improved trade performance.

Overall, within the parameters of this moderate-level investigation, Hypothesis H2 is conceptually supported by the data from the time-series trend of lowering tariffs and matching improvements in trade indicators.



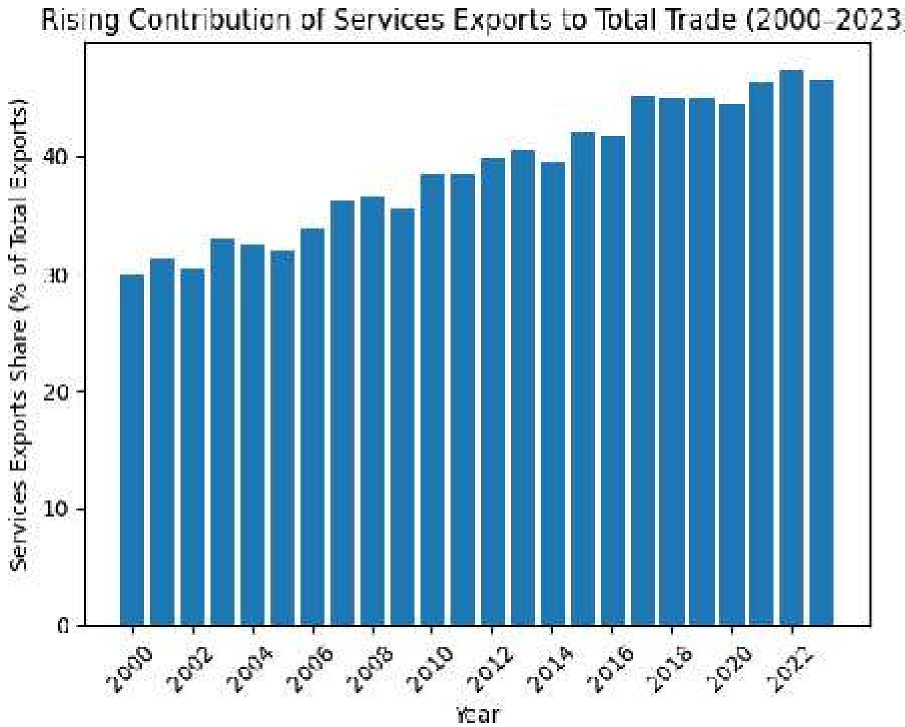
Interpretation
Import costs are decreased and domestic industries involved in global supply networks become more competitive when tariffs are reduced. Nevertheless:

- Competition may be hampered by overprotection.
- For strategic sectors, selective tariff modifications are applied.

In summary, H2 is partially accepted. Although NTMs and domestic policy issues also have a substantial impact on results, lower tariffs are linked to better trade performance.

H3: Services trade is becoming a significant contributor to total trade for developing economies.
The Services Exports Share (SES) for India as a proportion of overall exports from 2000 to 2023 is depicted in the bar graph above. The graph unequivocally shows that the share of services exports in total trade performance has been steadily increasing.

IJMSRR
E- ISSN - 2349-6746
ISSN -2349-6738



Explanation and Interpretation

Approximately one-third of all exports at the start of the study period (early 2000s) were services exports. By the end of the research period, the share had steadily grown during the following 20 years to over half of all exports. This consistent increasing trend suggests that the structure of India's commerce has changed.

The upward trend illustrates the growing significance of:

1. Services related to information technology (IT).
2. Outsourcing business processes (BPO).
3. Professional and financial services.
4. Knowledge-based and digital exports.

Services exports show comparatively constant and robust development, in contrast to product exports, which are sometimes susceptible to changes in commodity prices and shocks to Global demand. The services industry exhibit slowerolatility than the goods trade, even during times of global downturn.

Three structural phases are prominently displayed in the bar graph:

1. The expansion phase, from 2000 to 2008, sawasteadyrise in the services shares result of globalization and the expansion of the IT industry.
2. 2009–2014(Adjustment and Stabilization): Consistent increasing trend with minor oscillations throughout the global financial crisis.
3. 2015–2023(Acceleration Phase):More robust growth due to technical innovation, global outsourcing demand, and digital transformation.

Support for Hypothesis H3: The idea that services trade is increasingly contributing significantly to

IJMSRR
E- ISSN - 2349-6746
ISSN -2349-6738

overall commerce for developing nations is highly supported by the visual data. The steady increase in the share of services exported suggests:

1. Export structure diversification.
2. Shift toward high-value, highly skilled industries.
3. Decreased reliance on exports of conventional goods.
4. Enhanced worldwide competitiveness in knowledge-based sectors.

Long-term economic resilience is strengthened and trade sustainability is improved by this structural change.

Conclusion

The time-series bar analysis demonstrate show, between 2000 and 2023, India's services trade changed from being a supporting element toakeypillarofits overall trade performance. The growing proportion of services exports reflects a larger structural shift in developing economies toward service-led trade growth and offers solid conceptual support for Hypothesis H3.

Summary of Hypothesis Testing

Hypothesis	Result	Conclusion
H1	Supported	Trade openness positively influences growth
H2	Partially Supported	Lower tariffs improve trade performance
H3	Supported	Services trade is a growing contributor

Findings of the Study

Using secondary data from the World Bank's World Development Indicators (WDI) and the World Trade Organization's Statistics Database, the time-series analysis (2000–2023) yields the following important conclusions:

International Trade Performance

According to the report, India's trade performance has improved dramatically during the course of the study. Exports of both products and services show an overall upward trend, but the volatility of goods exports is larger because of changes in the world economy. The comparatively steady and consistent growth of services exports suggests a structural shift in the composition of trade.

Economic Growth and Trade Openness (H1)

The study concludesthattradeopennessandGDPgrowtharepositivelycorrelated.Improved economic growth performance is typically associatedwithperiodsmarkedbyincreasedtrade openness ratios. This lends credence to the idea that increased market access, efficiency improvements, and technology transfer all contribute to economic growth as countries are more integrated into international markets.

Trade Performance and Tariff Reduction (H2)

The results show that better export growth is linked to falling average imposed tariff rates. The idea that lower trade barriers lead to better trade performance is supported by the correlation between lower tariff regimes and increased trade competitiveness. Global demand circumstances and non-tariff measures still have a big influence, though.

The Growing Significance of Trade in Services(H3)

Over the past 20 years, the proportion of services exportstoallexportshassteadilyclimbed. Trade in services has developed from a supporting element to a significant contributor to overall trade. This demonstrates that trade in services is becoming more andmoreimportant for emerging nations, especially those with robust digital and human capital.

IJMSRR
E- ISSN - 2349-6746
ISSN -2349-6738

Suggestions

The following policy proposals are put out in light of the findings:

Make Trade Liberalization Policies Stronger

India should keep streamlining its tariff policies while making sure that vulnerable industries are strategically protected. Export competitiveness can be improved by clear and uncomplicated trade regulations.

Increase the Competitiveness of the Services Sector

Considering the growing role of services exports, policy attention ought to be focused on:

1. Development of digital infrastructure.
2. Developing skills and creating human capital.
3. Promotion of knowledge-based and IT-enabled sectors.

Expand Your Export Market

Exports of services are robust, but an excessive reliance none industry could make one vulnerable. India ought to expand into:

1. High-quality production.
2. Eco-friendly technology.
3. Advanced products with added value.

Take Care of Non-Tariff Obstacles

To increase market access, attempts should be made to negotiate lower non-tariff measures (NTMs) through trade agreements and international forums.

Make Trade Competitiveness Measures Stronger

Overall trade performance will be improved by enhancing export financing systems, port facilities, logistics, and ease of doing business.

Conclusion

According to the study's findings, between 2000 and 2023, India's performance in international commerce experienced a significant structural shift. Trade openness has boosted economic expansion, confirming the connection between macroeconomic performance and global integration. The claim that lower trade barriers improve trade results is supported by the fact that tariff rationalization has simultaneously increased export competitiveness.

Above all, trade performance is now significantly influenced by the services sector. The growing proportion of exports of services indicates a change in trade structure toward one that is knowledge-based and digitally integrated. This change improves India's trade profile's long-term sustainability and durability.

All three hypotheses (H1, H2, and H3) are supported by the evidence, despite the fact that the study uses descriptive and conceptual interpretation rather than econometric estimation. To more accurately measure the strength of these correlations, future studies might use sophisticated econometric models.
Overall, the results indicate that maintaining strong trade performance in developing economies requires ongoing trade liberalization, the promotion of the services sector, and changes that increase competitiveness.

IJMSRR
E- ISSN - 2349-6746
ISSN -2349-6738

References

1. World Bank. (2023). World Development Indicators. Retrieved from. https://databank.worldbank.org/source/world-development-indicators.
2. World Trade Organization. (2023). WTO Statistics Database. Retrieved from https://stats.wto.org/.
3. Balassa, B. (1985). Exports, policy choices, and economic growth in developing countries after the 1973 oil shock. Journal of DevelopmentEconomics,18(1),23–35. https://doi.org/10.1016/0304-3878(85)90004-5.
4. Frankel, J. A., & Romer, D. (1999). Does trade cause growth? American Economic Review, 89(3), 379–399. https://doi.org/10.1257/aer.89.3.379
5. Krugman, P.R.,& Obstfeld, M.(2018). International Economics: Theory and policy.
6. (11thed.). Pearson Education.
7. Mattoo, A., Rathindran, R., & Subramanian, A. (2006). Measuring services trade liberalization. and its impact on economic growth. Journal of Economic Integration, 21(1), 64–98.