

Original Article

Changing Dynamics of India's Export-Import Structure with BRICS Countries

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This paper examines the changing dynamics of India's export-import structure within the BRICS framework, highlighting the country's strategic initiatives to realign its trade relations with Brazil, Russia, China, and South Africa, while also interacting with BRICS-Plus partners. The document examines India's ascending position in global trade, emphasizing the interaction among energy security, manufacturing expansion, and digital change. India's assertive foreign policy and its "Make in India" and "Atmanirbhar Bharat" efforts illustrate its goal to diminish dependence on imports—especially from China—and to enhance high-value exports in pharmaceuticals, engineering products, and information and communication technology. The incorporation of BRICS-Plus states provides India with an opportunity to diversify its markets, diminish reliance on Western trade frameworks, and foster more equitable South-South collaboration. However, considerable obstacles persist, including ongoing trade deficits, structural imbalances between imports and exports, and vulnerabilities within supply chains—particularly in energy, electronics, and essential components like as APIs. The research utilizes a secondary data methodology to extract insights from academic literature, reports, and trade statistics to discern significant changes and trade realignments following 2020. Significant emphasis is placed on India's involvement in vital corridors, diversification of import sources, and engagement in emerging digital and logistical frameworks. In conclusion, although India has achieved significant progress in export performance and trade diversification, future advancement necessitates enhanced policy coherence, infrastructure modernization, and strategic diplomacy to secure sustainable and mutually advantageous trade relations within the changing BRICS and BRICS-Plus frameworks.

Keywords: India, BRICS, trade structure, export diversification, supply chain, BRICS-Plus, import dependence

Introduction

1 India's Transforming Role in International Trade

Increasing Global Influence

India has become a formidable player in global trade, exhibiting heightened confidence and ambition on international stages. The nation's foreign policy has significantly shifted from a historically passive and reactive approach to a more assertive and proactive involvement in global economic and political affairs. This change symbolizes India's overarching objective of assuming a prominent role in influencing the global order. India's leadership transformation is evident in multilateral forums like the G20 and its increasing involvement in global trade discussions, where it advocates for the interests of developing nations while aligning with overarching strategic objectives (-, 2023).

Emphasis on Manufacturing and Exportation

To reinforce its position as a global trade leader, India has prioritized the enhancement of its manufacturing capabilities through initiatives such as Make in India. The government has implemented incentives and reforms to encourage foreign direct investment (FDI), diminish regulatory obstacles, and enhance logistics infrastructure. As global enterprises seek to diversify supply chains and diminish reliance on China, India is establishing itself as a credible alternative sourcing location. India's appeal is enhanced by competitive labor prices, an expanding domestic market, and political stability.



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Nonetheless, enduring constraints such as port inefficiencies, elevated logistics expenses, intricate customs processes, and insufficient infrastructure continue to pose substantial barriers to fully actualizing this promise (**Ahluwalia & Kanupriya, 2025**).

Engagement in the Indo-Pacific

India's trade strategy is progressively linked to its strategic focus on the Indo-Pacific region. India seeks to enhance its economic and security interests by fortifying partnerships with nations such as the United States, Japan, Australia, and ASEAN countries. Frameworks like the Quad and bilateral FTAs have enabled this engagement. Despite significant progress in security cooperation, India's economic involvement in the Indo-Pacific remains insufficient. Enhanced trade agreements and integration into regional value chains are crucial for India to optimize the economic advantages of its strategic partnerships and mitigate China's influence in the area (**Nath G, 2025**).

Continual Disparities in Bilateral Trade

The trade connection between India and China exemplifies the intricacies of India's worldwide trade interactions. Notwithstanding governmental initiatives designed to diminish reliance on Chinese imports, India remains significantly dependent on them, particularly in the sectors of electronics, medicines, and machinery. Concurrently, China's reliance on imports from India has decreased, resulting in a progressively imbalanced bilateral trade equilibrium. India's Export Intensity Index (EII) to China has quantitatively declined, falling to 0.33 in 2023 from over 1.0 in the mid-2000s. In contrast, the import intensity has consistently exceeded 1.0 since 2007, signifying a continual reliance on Chinese products. This disparity highlights overarching apprehensions over supply chain weaknesses and the necessity for diversification.

Transforming Export Environment

India's export performance has exhibited varied outcomes across several sectors and markets. Conventional sectors, like as textiles, have experienced a reduction in market share, especially in significant countries like the European Union. Conversely, India is diligently investigating emerging markets and areas with greater value-added potential. The nation is intensifying its integration into global value chains (GVCs), especially in medicines, information technology services, and precision engineering. India's trade negotiations with the UK, EU, and Australia illustrate its strategy shift towards high-value export sectors and technology-intensive commerce, while simultaneously aiming to enhance exports to Africa and Latin America.

Development and Obstacles

Despite the expansion of India's trade volume and global connectivity, structural constraints persist. Trade imbalances with key partners, excessive dependence on particular nations for essential imports, and insufficient competitiveness in specific manufacturing sectors hinder India's advancement. Moreover, there is an urgent necessity to optimize regulatory frameworks, enhance trade-related infrastructure, and modernize customs procedures. To maintain its global trade momentum, India must execute comprehensive reforms in logistics, digital trade facilitation, and workforce skill development to remain competitive in a swiftly changing international trade landscape (**Sharma & Bharti, 2025**).

2 Emergence and Expansion of BRICS (Incorporating BRICS-Plus Partners)

Evolution of BRICS

The BRICS coalition—consisting of Brazil, Russia, India, China, and South Africa—has developed into a formidable alliance reflecting the unified interests of emerging economies. Originally envisioned as an economic alliance, BRICS has expanded to include wider geopolitical and institutional objectives. It aims to shape global economic governance by promoting a more inclusive, multipolar world order. The bloc advocates for fair reform of global financial organizations such as the IMF and World Bank, and contests the supremacy of Western-centric systems. BRICS has achieved recognition as an alternative to conventional G7 and OECD paradigms through its summits, development bank, and cooperative frameworks (**Volodin, 2025**).

Expansion of BRICS-Plus

The extension of BRICS into BRICS-Plus represents a significant evolution in the global trade and political arena. BRICS-Plus seeks to establish a more extensive South-South cooperation platform by allowing more developing and emerging economies to engage in its framework. Countries such as Argentina, Egypt, Iran, the UAE, and Ethiopia have expressed interest in or participated in BRICS-Plus discussions, illustrating the increasing allure of this alternative coalition. The overarching aim encompasses partnership in infrastructure investment, energy cooperation, technological transfer, and trade diversification. This expansion signifies a calculated shift towards a polycentric global economy, when influence is disseminated across several power centers instead of being centralized in the West.

India's Contribution to BRICS

India has adopted a more assertive stance within BRICS, leveraging the platform to advance its economic and diplomatic goals. It underscores the significance of technical self-sufficiency, equitable international commerce, and inclusive global advancement. India promotes diverse trade among BRICS, technological exchange, and enhanced intra-BRICS investments. India asserts its role as a leader of the Global South, seeking to connect low-income nations

with developed economies through efforts that promote fair growth, digital inclusion, and sustainability. India's strategy exemplifies a delicate equilibrium: associating with BRICS while preserving strategic independence from China.

Geopolitical Realignments

The BRICS-Plus framework indicates a significant reconfiguration in international economic ties. It reallocates the center of gravity from Western-centric trade frameworks to emerging markets. This signifies both an opportunity and a challenge for India. BRICS-Plus allows India to enhance trade with unconventional partners, diminish dependence on the US and EU, and investigate alternate finance methods beyond the Bretton Woods framework. The increasing Chinese hegemony within BRICS and the absence of unified trade policies in the bloc pose challenges. India's trade framework must evolve to capitalize on these new alliances while protecting its strategic and economic interests.

Obstacles and Prospects

India is poised to gain substantially from the BRICS and BRICS-Plus frameworks. These platforms include enhanced export markets, increased involvement in global value chains, and potential access to development financing via organizations such as the New Development Bank. Nonetheless, internal obstacles such as insufficient policy harmonization among member nations, restricted intra-BRICS trade volumes, and geopolitical tensions—particularly between India and China—may compromise the bloc's efficacy. India must address these complications by fostering sector-specific trade collaboration, improving policy coherence, and capitalizing on its strengths in digital services, medicines, and renewable energy to reinforce its position as a pivotal contributor within the BRICS framework (Volodin, 2025).

3 Aim and objectives

Aim

To rigorously analyze the evolving dynamics of India's export-import framework with BRICS and BRICS-Plus countries, emphasizing the identification of trade patterns, strategic dependencies, and policy responses designed to bolster trade resilience, export competitiveness, and economic collaboration in a multipolar global trade landscape.

Objectives

- To analyze the evolving structure of India's trade with BRICS nations and identify the factors contributing to trade imbalances, especially with China.
- To examine the opportunities and strategic risks posed by India's increasing engagement in BRICS-Plus, including diversification of import sources and export destinations.
- To assess India's policy measures aimed at enhancing export competitiveness, reducing import dependence, and improving trade infrastructure within the BRICS framework.

Methodology

This study also utilized a secondary method of research, which was used in gathering the related data in line with the research objectives. The methodology used to conduct the research was the use of information published by other authors that is reputable such as peer-reviewed journal articles, scholarly books, reports, and institutional publications along with legitimate online databases. The choice of literature used relied on this property, which was its authenticity, correspondence to the research topic and whether the information contained therein was true. A thorough review was carried out first and this assisted in noting major trends, theories and results which were pertinent to the topic of discussion. Systematic data extraction was made so that it fit the research questions and objectives.

The use of the secondary data provided a number of benefits. It also provided the possibility of viewing masses of information in a short time as well as the analysis of mass or longitudinal data that would otherwise be problematic to get through primary research. In addition, the validated and published data used increased the reliability and objectivity to a high degree. Care was taken in cross checking facts and making interpretation of the data in its context of origin rather than giving a distorted opinion. This approach was especially valuable in developing a picture of larger trends, aiding in comparative study, and acting as a basis on which to conduct further research. On balance, secondary research was the most cost-effective and time-saving way to get extensive information and the issue remains sufficiently academic and believable.

Evolution of India's Trade with BRICS

1 Expansion of Trade Volume Over Time

Long-Term Growth Trajectory

India's commerce with the BRICS nations—Brazil, Russia, India, China, and South Africa—has seen steady expansion since the formation of the bloc in the early 2000s. From the late 1990s to the 2020s, there was a significant increase in trade volumes, especially with China, which now represents the greatest portion of India's trade within the BRICS framework. This expansion has been supported by mutual economic interests, complementary trade characteristics, and initiatives to enhance south-south collaboration. India has sustained vigorous trading links with all BRICS members, however the India-China bilateral trade relationship has been particularly prominent, frequently constituting over 80% of India's overall trade with the bloc.

Principal Catalysts of Expansion

A multitude of reasons has facilitated the continuous rise in trade volumes. The rearrangement of global supply chains, India's growing exports in manufacturing, pharmaceuticals, and IT services, and the increasing demand from BRICS partners for Indian products are among them. In contrast, India has progressively imported energy resources, raw materials, and agricultural products from BRICS countries such as Russia and Brazil. Geopolitical trends, especially the pursuit of economic self-sufficiency and resilience in response to Western sanctions and global crises, have significantly propelled intra-BRICS trade expansion by promoting enhanced cooperation and a unified development goal (Sohag et al., 2024).

Trends in Trade Intensity

Despite the rise in total trade volumes, the trade intensity—assessing the importance of BRICS trade within India's entire trading portfolio—has not consistently mirrored this trend. India's export intensity with China reached its zenith in the mid-2000s but has subsequently diminished. Simultaneously, commerce with the other BRICS countries, albeit increasing, remains rather modest. This indicates that although commerce within the bloc is increasing in absolute terms, its relative significance varies based on global market circumstances and bilateral relationships.

2 Post-2020 Transformations: Energy and Logistics Corridors

Strategic Development of Energy Corridors

Since 2020, energy security has become a focal point of India's economic diplomacy within the BRICS framework. This transition has been most apparent in India's strengthening energy relationships with Russia and Brazil. In the context of escalating global tensions, especially after the 2022 Russia-Ukraine crisis, India has markedly augmented its imports of crude oil, coal, and natural gas from Russia at reduced prices. These changes have underscored the strategic significance of energy corridors with stable, non-Western allies. Proposed initiatives, including pipeline routes and energy transportation networks, are currently under evaluation to circumvent conventional chokepoints and guarantee a continuous energy supply.

Establishment of Novel Logistics Corridors

In conjunction with energy advancements, the post-COVID-19 period has expedited initiatives to establish alternate logistics corridors. These projects seek to diminish reliance on Western-controlled maritime and commerce infrastructure by enhancing intra-BRICS connectivity. Primary focal points are the modernization of ports, the creation of direct shipping routes, and the implementation of digital logistics technologies to enhance trade processing efficiency. These initiatives not only improve trade efficiency and reduce costs but also foster more resilient and autonomous supply chains across BRICS countries. This is particularly vital in a world experiencing recurrent supply interruptions caused by pandemics, conflicts, and climate-related threats (Medvedeva & Zubkova, 2022).

3 Influence of BRICS-Plus Expansion on Trade Dynamics

Comprehending BRICS-Plus

BRICS-Plus denotes the latest idea aimed at augmenting the BRICS coalition by incorporating additional rising economies from diverse regions. In 2023–2024, this growth is formalizing, with nations such as Egypt, Ethiopia, Iran, the UAE, and Argentina either joining or demonstrating significant interest. The purpose of BRICS-Plus is to expand the bloc's economic influence, augment political power, and establish a more inclusive framework for global trade and governance that more accurately reflects the interests of the Global South.

Potential for Trade Diversification

The incorporation of more economies into the BRICS-Plus framework is anticipated to substantially transform the trade dynamics within the coalition. This presents India with a strategic opportunity to expand its export markets beyond conventional partners. Access to expanding markets in Africa, Latin America, and Central Asia creates new opportunities for Indian goods and services, especially in sectors such as pharmaceuticals, digital services, agricultural products, and light manufacturing. Furthermore, the increase corresponds with India's continuous endeavors to diminish reliance on China and Western markets by collaborating with alternative trade partners.

Prospects, Threats, and Policy Alignment

The expansion of BRICS-Plus enhances India's trading opportunities, however it also presents obstacles. Increased integration results in heightened competition for market share, particularly from China, whose economic scale and export capabilities far exceed those of other countries. India must consequently adopt intelligent trade policies and diligently strive for the harmonization of trade norms and frameworks within the enlarged group. In the absence of such cooperation, intra-bloc trade disparities and policy conflicts may diminish the advantages of growth. India's diplomatic initiatives will be essential in securing equitable trade practices, fair market access, and establishing a level playing field.

Prolonged Prognosis

In the long run, the BRICS-Plus framework is expected to enhance India's inclusion into emerging global value chains, especially in the digital economy, sustainable technology, and healthcare services. It also possesses the capacity to

enhance India's resilience to global economic disruptions by diversifying trade and investment connections. Alongside physical infrastructure, investments in soft infrastructure—such as cross-border digital payments, financial technology connections, and standardized regulatory frameworks—will be crucial for optimizing the advantages of BRICS-Plus. Nonetheless, the magnitude and intricacy of commercial exchanges with new members will require time to develop and may not promptly align with those of the original BRICS states (Cochrane & Zaidan, 2024).

Import dynamics

1. Composition of Imports: Energy, Fertilizers, Industrial Products

Energy Imports

Energy constitutes the predominant element of India's imports from the BRICS nations, with crude oil and coal as the principal commodities. Russia has become a vital energy supply for India, particularly with the implementation of Western sanctions on Moscow post-2022. India leveraged the availability of inexpensive Russian crude oil, markedly augmenting its energy imports from the nation. Furthermore, nations such as Brazil and South Africa play a supplementary role in enhancing India's energy security. The growth of BRICS to incorporate more oil-exporting countries like Saudi Arabia and Iran is anticipated to diversify India's energy alternatives, diminishing its dependence on conventional suppliers and augmenting its strategic energy autonomy (Kazelko & Semeghini, 2024).

Fertilizer Imports

Fertilisers represent a significant component of India's imports from BRICS countries, with Russia as the primary source. The post-2020 era, characterized by global supply interruptions and fluctuations in fertilizer prices, emphasized the necessity of dependable sourcing. The agricultural sector in India, reliant on fertiliser inputs, profited from consistent and economical imports from Russia throughout this period. The fortification of relations within BRICS has enabled India to establish enduring agreements that guarantee stable fertiliser supplies, so shielding the home market from global price fluctuations.

Manufactured Products

Industrial products, especially from China, constitute a significant share of India's imports associated with BRICS. This include electronics, telecommunications apparatus, heavy machinery, automobile parts, and pharmaceutical substances, including active pharmaceutical ingredients (APIs). The substantial number and essential nature of these imports indicate China's profound integration into global manufacturing and supply systems. Notwithstanding initiatives to enhance domestic production, India remains significantly dependent on Chinese products to sustain its industrial, services, and digital infrastructure, underscoring a structural difficulty that the nation is endeavoring to resolve through strategic diversification.

2. India's Reliance on China: Composition, Magnitude, Strategic Hazards

Import Composition

India's imports from China primarily consist of important and advanced technology products crucial for many sectors. This encompasses electrical devices like mobile phones, semiconductors, and computer hardware; telecommunications equipment; solar panels; pharmaceutical APIs; and substantial capital gear. These imports are not only valuable but also essential for sustaining India's industrial expansion, healthcare system, and infrastructural development, resulting in a dependency that is both economic and technological.

Degree of Dependence

China constantly constitutes about 15% of India's total imports, rendering it India's foremost trading partner in terms of incoming commerce. In numerous critical sectors—especially electronics, telecommunications equipment, and pharmaceuticals—China's market share is far greater. Notwithstanding numerous government attempts aimed at reducing reliance on China, such as the implementation of import limits and incentives for domestic manufacturing, this trend of concentrated dependence has persisted essentially unaltered. This illustrates the structural limitations inside India's manufacturing sector and the cost benefits that Chinese products persistently provide (Lalitha, 2025).

Strategic Risks

The significant import dependence of India on China creates many strategic risks.

delivery Chain Risk: Geopolitical tensions, such border disputes or international hostilities, may result in disruptions to the delivery of essential goods. A delay in API imports could promptly affect India's pharmaceutical production.

The bilateral trade deficit with China constitutes India's most substantial trade imbalance, greatly impacting its overall current account deficit. This enduring disparity burdens India's external sector and constrains its capacity to react to economic disturbances. **Restricted Bargaining Power:** Excessive dependence on Chinese inputs undermines India's negotiating clout in bilateral discussions and constrains its capacity to formulate autonomous industrial or digital policy. **Technology and Security Risks:** The importation of essential digital infrastructure, such as telecommunications and surveillance technologies from China, raises issues around cybersecurity and technological sovereignty. This has incited national discussions on data privacy, digital autonomy, and infrastructure resiliency (Zheng et al., 2025).

3. Initiatives for Diversifying Import Partners Within BRICS Energy Diversification Strategies

India, acknowledging the strategic significance of energy security, has intentionally sought to diversify its energy imports within the BRICS framework. Russia continues to be a significant ally; but, India is progressively collaborating with other BRICS-Plus members, like Saudi Arabia and Iran, to get alternative sources of crude oil and natural gas. These initiatives seek to bolster energy security while diminishing reliance on a singular supply, therefore augmenting India's resilience in a fluctuating geopolitical landscape.

Initiatives for Fertilizer Procurement

India is proactively broadening its fertilizer import portfolio by procuring greater quantities from Russia and Brazil. This approach aims to safeguard the nation from global fertilizer supply shortages and price fluctuations. Furthermore, long-term fertilizer supply agreements under the BRICS and BRICS-Plus frameworks provide India with enhanced negotiation power and cost benefits. Diversification diminishes India's historical reliance on non-BRICS suppliers, such as those from the Middle East or Western Europe.

Industrial Products and Strategic Resources

Despite the complexity of diversification in the industrial goods sector owing to China's supremacy in global manufacturing, India is implementing multifaceted tactics to diminish reliance. These encompass:

Joint Ventures: India is pursuing industrial joint ventures and technological collaborations with BRICS nations such as Russia and Brazil to co-develop machinery, electronics, and healthcare items.

India is assessing prospects for sourcing chemicals, minerals, and engineering components from South Africa, which may serve as an alternative supplier for industries reliant on Chinese inputs.

Supply Chain Rerouting: Utilizing the logistics infrastructure being constructed within the BRICS framework, India seeks to create alternate supply routes that circumvent China, hence enhancing flexibility and resilience in sourcing (Vasilev, 2025).

Regulatory and Organizational Strategies

India's comprehensive policy framework, encompassing the "Atmanirbhar Bharat" (Self-Reliant India) project, aims to diminish essential import reliance in vital industries. This encompasses production-linked incentive (PLI) programs for electronics, medicines, and solar industry. Concurrently, India is advocating for bilateral and multilateral trade agreements within the BRICS framework that enhance local value chains and regional manufacturing centers.

Innovations in Logistics and Currency

India and other BRICS nations are pursuing improvements in logistics and trade finance to enhance these diversification tactics. This encompasses utilizing local currencies for trade settlements, diminishing dependence on the U.S. dollar, and implementing digital logistics and customs platforms to optimize trade flows. These solutions not only diminish transaction costs and currency risks but also foster the development of a more autonomous and robust BRICS-centric trade network (Barykin et al., 2021).

Export structure

1. Trends in Export Volumes: Performance by Sector

Preeminence of Fabricated Exports

India's export composition has significantly transitioned towards manufactured goods, which presently predominate its export portfolio. This progression signifies India's advancing industrialization and enhanced incorporation into global value networks. The export strategy centered on manufacturing is propelled by critical sectors including engineering goods, petroleum products, pharmaceuticals, and chemicals, which have jointly facilitated India's export growth and enhanced its trading standing among emerging nations and within groups such as BRICS.

Engineering Products: A Cornerstone of Export Expansion

Engineering items have become the predominant contributor to India's export revenues, presently constituting approximately 25% of overall export earnings. Exports from this sector grew from \$18 billion in 1990 to over \$81 billion by 2019. This expansion has been supported by structural reforms, technological innovations, and advantageous global demand. The industry includes diverse products such as capital goods, machine tools, iron and steel products, and industrial machinery, serving as a crucial contributor to revenue and employment.

Pharmaceuticals and Chemicals: Premium Segments

The pharmaceutical business in India consistently excels, supported by its international standing as a dependable provider of cost-effective and high-quality generic medications. The nation's dominance in the production of Active Pharmaceutical Ingredients (APIs) has also enhanced exports to BRICS and other emerging markets. In addition to pharmaceuticals, chemicals and chemical-derived products have experienced increased market access and rising demand, enhancing India's competitiveness in knowledge-intensive industries.

Export Diversification and Enhancement

Although conventional exports like textiles, leather, and agricultural products continue to hold significance, India has markedly expanded its export portfolio. The nation is currently exporting commodities of greater value, such as automotive components, industrial machinery, and IT-enabled services. This diversification has diminished reliance on low-value primary commodities and strengthened India's capacity to endure global market volatility.

2. Principal Export Categories: Pharmaceuticals, Automotive Components, Telecommunications, and Engineering Products

Pharmaceuticals: Broadening International Presence

India's pharmaceutical exports are fundamental to its international trade strategy. Referred to as the "pharmacy of the world," India provides cost-effective, high-quality generics, bulk pharmaceuticals, and completed formulations to over 200 nations. Within the BRICS framework, Indian pharmaceuticals are particularly esteemed for their cost-efficiency and adherence to international regulatory requirements. This sector is bolstered by robust research and development capabilities, comprehensive manufacturing infrastructure, and proactive government backing via initiatives such as Pharma Vision 2020.

Automotive Components: Expanding Globally

The automotive components sector has expanded concurrently with India's domestic car manufacturing industry. Indian exporters are progressively providing components like engine parts, transmission systems, brake equipment, and electrical systems to various nations in Europe, Africa, Southeast Asia, and BRICS members. This sector capitalizes on India's comparative advantages in cost-effective manufacture, engineering proficiency, and streamlined supply chains.

Telecom & Engineering Goods: Diverse and Scalable

India's engineering exports encompass a wide array of goods, including iron and steel products, industrial machinery, and telecommunications and IT systems. Iron and steel constitute around 15% of total engineering exports, highlighting the robustness of India's heavy industrial sector. The telecommunications sector, propelled by rising digital use and innovation, has had consistent export growth. These categories are essential for generating substantial employment and assisting small and medium enterprises (SMEs) in the manufacturing industry.

Impact on Employment

The engineering goods, automotive components, and pharmaceutical sectors collectively exhibit significant employment potential. The engineering goods sector provides almost 4.4 million jobs in both skilled and unskilled categories, underscoring its significance for trade and socio-economic advancement via industrial employment.

4.3. Expansion in Electronics and Value-Added Manufacturing Exports

Electronics: An Emerging Frontier

In recent years, electronics exports have emerged as a fundamental element of India's industrial policy, bolstered by specific government initiatives like the Production-Linked Incentive (PLI) plan. These incentives have resulted in a significant increase in the production of mobile phones, semiconductors, consumer electronics, and IT hardware. Although the electronics sector presently accounts for a lesser proportion of total exports relative to engineering and pharmaceuticals, its swift growth trajectory underscores its strategic significance in India's export diversification objectives.

Transition to Value-Added Manufacturing

India's export expansion is progressively propelled by value-added manufacturing, shifting from the conventional dependence on low-value commodities. Indian companies are now engaging in higher tiers of the value chain in industries such as automotive components, medicines, and manufacturing. This transition augments export revenues and industrial sophistication, elevating India's position in international trade. Engagement in Global Value Chains (GVCs) with BRICS partners facilitates the collaborative development of sophisticated technologies and goods.

Information and Communication Technology and E-Commerce as Facilitators

The significance of information and communication technology (ICT) and e-commerce platforms in enhancing India's export competitiveness is paramount. Digitally facilitated services, internet trading platforms, and international e-commerce are broadening the market access for Indian exporters. Sectors such as telecommunications equipment, software services, and digital hardware have notably profited from this digital infrastructure, enabling small and medium exporters to engage in international trade more effectively and at reduced prices (Srinivaas, 2023).

Trade Imbalance and Challenges

1. Increasing Trade Deficit with BRICS Countries

India's commercial relations with BRICS countries have shown consistent volume growth; nevertheless, this has been accompanied by an increasing trade deficit, especially with China and, more recently, Russia. This enduring deficit is chiefly influenced by structural factors, including India's reliance on imports for energy and industrial inputs, while its exports are predominantly focused on lesser value-added sectors. China remains the predominant contributor to India's

trade imbalance inside the bloc. The importation of electronics, machinery, and pharmaceutical inputs from China far exceeds India's exports to that nation, resulting in a persistent trade deficit (., 2025).

The trade deficit with other BRICS partners—Russia, Brazil, and South Africa—is comparatively minor, however it underscores India's dependence on these nations for raw commodities and energy supplies. India's energy imports from Russia have markedly risen in the post-2020 era, primarily attributed to discounted crude oil resulting from Western sanctions. Brazil and South Africa provide essential commodities such as coal, fertilizers, and agricultural inputs. Although trade with these nations is more equitable than with China, significant asymmetries persist.

2. Structural Disparities Between Imports and Exports

The trade structure between India and BRICS nations reveals significant disparities in the composition of imports and exports. India imports high-value, capital- and technology-intensive items, including electronics, telecommunications equipment, machinery, and chemicals, primarily from China and Russia. Conversely, Indian exports are primarily comprised of medicines, engineering products, textiles, and automotive components, which, while substantial, provide comparatively diminished margins and negotiating power in international commerce. These structural imbalances present a persistent threat to India's trade sustainability. The dependence on high-value imports from China has been challenging to eliminate, despite significant efforts through initiatives such as "Make in India" and "Atmanirbhar Bharat." India's export diversification plan has shown favorable results, particularly in the IT services and pharmaceuticals industries; however, advancement is inconsistent due to established supply chains that prioritize imports from BRICS nations. Furthermore, augmenting exports in high-value sectors such as electronics and precision machinery is hindered by deficiencies in indigenous capabilities and reliance on foreign technology. The forthcoming challenge involves not only broadening the export portfolio but also augmenting the proportion of high-end, innovation-driven items to establish more balanced trade connections (Mohtasim Wasif et al., 2025)(Lalitha, 2025).

3. Vulnerabilities in the Supply Chain and Strategic Risks

India's reliance on some BRICS nations—especially China and Russia—for essential supplies has revealed significant strategic risks and weaknesses in its supply chains. The importation of active pharmaceutical ingredients (APIs), telecommunications hardware, and electronic components from China has rendered India vulnerable to geopolitical disturbances and global supply chain disruptions. These dependencies jeopardize industrial resilience, national security, and the viability of India's manufacturing ecosystem. Although energy imports from Russia have contributed to the diversification of India's sources, they also pose a geopolitical conundrum. Political instability, changing alliances, and economic penalties impacting Russian supplies may threaten India's energy security. The same is true for fertilizer imports and essential minerals obtained from Brazil and South Africa, where logistical difficulties and price volatility create additional concern. India has implemented proactive measures to mitigate these vulnerabilities via policy reform, diplomatic engagement, and infrastructural investment. Efforts including the digitization of trade platforms, the implementation of local currency settlement systems, and the establishment of alternative logistics corridors seek to diminish reliance on Western financial and transportation networks. The "Atmanirbhar Bharat" initiative emphasizes the development of local capabilities in critical industries such as semiconductors, medicines, and renewable energy technologies. The BRICS-Plus expansion has the potential to bolster India's supply chain resilience by including additional partners and diversifying trade relationships. Nonetheless, it may also engender new complexity, including heightened competition for export markets and the necessity for more coordinated trade policies across a wider array of nations. Strategic planning, policy coherence, and investment in innovation are crucial for India to transform BRICS-Plus into a platform for sustained trade participation instead of a new source of imbalance (Mohtasim Wasif et al., 2025)(Chikova, 2025).

Conclusion

India's developing economic partnership with the BRICS grouping and its augmented BRICS-Plus framework marks a pivotal moment in the country's global trade policy. The analysis indicates that although India has significantly advanced its export capabilities—especially in engineering goods, medicines, and ICT—it still has obstacles related to entrenched import dependency and imbalances, particularly with China. Imports of energy and fertilizers from Russia and Brazil have bolstered India's supply networks, while increasing exports of high-value items signify an advancement in industrial complexity. The post-2020 period has been characterized by a strategic emphasis on energy corridors, logistics diversification, and digital infrastructure to mitigate vulnerabilities arising from geopolitical upheavals. India's heightened involvement in BRICS-Plus offers novel prospects for market access, technology exchange, and multipolar trade alliances, particularly with burgeoning economies in Africa, Latin America, and the Middle East. The expansion necessitates policy consistency, diplomatic dexterity, and efficient integration into global and regional value chains. India's structural trade deficit, particularly with China, constitutes a considerable economic and strategic issue. The government's focus on self-reliance, production-linked incentives, and bilateral agreements within the BRICS framework is commendable but inadequate to address this issue. To establish itself as a trading powerhouse in a reconfigured global order, India must prioritize the alleviation of logistical impediments, the augmentation of domestic technology competencies, and the promotion of collaborative initiatives within the bloc. Ongoing investments in digital trade platforms, local currency transactions, and robust supply chains will be crucial for converting obstacles into

sustainable trade benefits. India's involvement in BRICS and BRICS-Plus embodies both potential and danger, necessitating a measured strategy that harmonizes opportunity with risk mitigation in an evolving geopolitical context.

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