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TRANSFORMING INDIA'S LOGISTICS SECTOR: CHALLENGES AND OPPORTUNITIES

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number of opportunities. In this case study, we delve into India's logistics ecosystem, exploring the hurdles impeding its efficiency and growth, while also highlighting the pathways towards innovation and sustainable development. Through a comprehensive analysis of the sector's dynamics, we aim to uncover actionable insights that can inform strategic interventions and nurture the emergence of a more agile, resilient, and competitive logistics infrastructure in India.

Growing significance of the Indian logistics sector

The Indian economy, which ranks fifth in the world with a GDP of approximately US\$ 3.7 trillion in 2023, grew rapidly between 2015 and 2019, averaging more than 7% annually. However, because of stringent COVID-induced lockdown, GDP shrank 7.3% in 2020. The service sector's comeback, manufacturing sector's revival and agricultural growth propelled strong recovery in 2021 and 2022, resulting in a remarkable 15.3% growth over 2020-22. The manufacturing sector, which accounted for 15.3% of GDP in FY22, stands to gain further given the government's focus on promoting 'Make in India' and transforming India into a 'global manufacturing hub.' India is poised to benefit from the shift in manufacturing bases, reaping significant benefits as new global trends offer the country a unique chance to build top-notch infrastructure, attracting companies to set up operations and become a leading global manufacturing centre.

Growth in manufacturing would need efficient and technology-enabled supply chain solutions to support global companies. India has the capabilities to become a trusted supply chain partner to domestic and global trade by offering efficient and complex supply chain solutions. With technological advancements, the country is also revamping its logistics sector by integrating technological solutions to automate and optimise the process. Over the last five years, India has consistently improved its ranking on various global manufacturing performance indicators, logistics and ease of business, while rising six places to 38th among 139 countries on the Logistics Performance Index.

Overview of India's logistics landscape

The Indian logistics sector is one of the largest in the world and presents a huge addressable opportunity. The sector is critical for the country's economic growth as it connects various elements of the economy and consists of transportation, warehousing and other supply chain solutions ranging from suppliers to end customers.

The Department of Commerce set up a logistics division in July 2017 to oversee the integrated development of the sector. Led by the Special Secretary to the Government of India, the division aims to enhance the sector by devising action plans for policy reforms and process enhancements, addressing challenges, and embracing technology.

The industry is characterised by dynamism, undergoing rapid evolution to meet escalating demands. Technological advancements, infrastructure enhancements and governmental initiatives, including GST implementation and the National Logistics Policy (NLP), are precipitating substantial transformations within the sector. Digitalisation, augmented connectivity, and the adoption of cutting-edge innovations such as Radio Frequency Identification (RFID) and Global Positioning System (GPS) are bolstering operational efficiency while mitigating costs. Furthermore, the surge in e-commerce activities and international trade is propelling demand for streamlined logistics solutions. Despite persistent challenges such as infrastructural deficits and regulatory intricacies, the industry stands poised for significant expansion, presenting domestic and international entities with opportunities to flourish within India's burgeoning market.

Key advantages of efficient logistics infrastructure

Supply chain efficiency: Logistics ensures a smooth and efficient supply chain, minimising delays and reducing lead times. This efficiency is vital for businesses to meet consumer demand promptly and optimise production processes.

Connectivity and accessibility: Logistics networks enhance connectivity and accessibility, linking various regions and markets. This connectivity contributes to economic integration by enabling businesses to reach a wider customer base and fostering trade between states and regions.

Cost reduction and competitiveness: Efficient logistics operations contribute to cost reduction in transportation, storage, and distribution. This, in turn, enhances the competitiveness of businesses as they can offer products at competitive prices in the market.

Job creation: The logistics sector is a significant source of employment, providing jobs in transportation, warehousing, distribution, and related services. Job creation contributes to income generation and economic empowerment. Logistics and warehousing exhibition platform LogiMAT stated that the logistics industry in India, which is one of the largest employment sectors, currently provides livelihoods to over 22 million people. The sector is projected to add 1 crore jobs by 2027.

Technology adoption: The industry's embrace of technology (such as GPS tracking, RFID, and advanced analytics) improves operational efficiency, reduces costs, and enhances overall productivity. This technological advancement positively influences the broader economic landscape.

Economic integration: A well-developed logistics sector facilitates economic integration by connecting various economic zones and promoting a seamless flow of goods and services. This integration is essential for fostering a more robust and interconnected national economy.

Contribution of Logistics Industry to Economic Advancement

With the pivotal role in driving economic progress by facilitating the efficient movement of goods and services across the supply chain, the logistics sector contributes around 13-14% to GDP and provides livelihood for more than 22 million people. It enables timely delivery, decreases costs, and enhances competitiveness, crucial for thriving businesses. Logistics boosts productivity and trade by improving connectivity infrastructure and adopting innovative technologies, thereby stimulating economic growth. Moreover, it fosters investment and supports various sectors, contributing significantly to GDP expansion. As a key enabler of trade and commerce, the logistics sector underpins economic development, enabling nations like India to harness their full potential and achieve sustainable progress.

According to an EY report titled 'India@100', India's GDP is estimated to be around US\$ 26 trillion in market exchange rate terms by 2047-48. The transportation and logistics sector are expected to play a crucial role in supporting the country's ambitious growth targets. As India aims to reach this milestone over the next 25 years, the transportation and logistics industry would be essential for enabling this growth as logistics cost as a % of GDP accounts for currently. The considerable expenses in the logistics industry can be ascribed to the fact that most freight movement in India depends on road transportation, which constitutes 66% of cargo in ton-kilometres. Rail transportation comes next with a share of 31%, whereas shipping and air transportation comprise only 3% and 1%, respectively. However, the distribution of freight transportation varies across sectors.

Government measures targeting India's logistics and supply chain industry

India's logistics and supply chain industry is experiencing a major transformation, led by several government initiatives aimed at boosting the sector. Notably, implementing GST and recognising logistics as infrastructure status are two critical moves that have been instrumental in driving this change. Initiatives that have been implemented to streamline goods movement and reduce turnaround times are listed below.

Dedicated freight corridors: To facilitate the seamless transportation of goods and commodities across India, high-speed, large-capacity railway corridors – known as dedicated freight corridors – have been established. These corridors integrate state-of-the-art technology and improved infrastructure, promising enhanced efficiency, and effectiveness in logistics operations. As of January 2023, 1,724 kilometres of dedicated freight corridors have been completed. These corridors connect Delhi, Mumbai, Chennai, and Howrah, which are already part of the Indian Railways Network.

Multi-modal logistics parks: The development of multi-modal logistics parks is a strategic step towards providing comprehensive freight-handling facilities. Spread across at least 100 acres, these parks offer access to various modes of transportation, including road, rail, and air. They also provide advanced storage solutions such as mechanised warehouses, cold storage facilities, and essential services like customs clearance and quarantine zones. These parks aim to optimise logistics operations and enhance overall supply chain efficiency by lowering freight costs, warehouse expenses and vehicle congestion. Multi-modal logistics parks have been established at 35 important strategic sites, with a total investment of Rs. 50,000 crores. These parks facilitate smooth transportation of goods using various modes of transport.

Parivahan portal: To standardise processes and promote seamless information sharing across locations, the government has introduced the Parivahan portal. This digital platform encompasses 'SARATHI' for driving license processes and 'VAHAN' for vehicle registrations. Both functionalities are consolidated within a user-friendly mobile application, 'mParivahan.' This initiative streamlines administrative procedures and provides easy access to information related to registration cards and driver's licenses, facilitating smoother logistics operations.

Introduction of e-way bill: Implementing the e-way bill system mandates using electronic documentation for truckloads valued above Rs. 50,000. This digital documentation eliminates the need for physical paperwork and state boundary check posts, simplifying inter-state vehicle movement. The e-way bill initiative enhances logistics efficiency and expedites overall supply chain movement by shortening turnaround time and bureaucratic hurdles.

GatiShakti: PM GatiShakti, launched by the Prime Minister in October 2021, aims to improve logistics efficiency, and reduce costs by coordinating planning among different agencies. This initiative emphasizes breaking down barriers between departments, and integrating infrastructure and logistics networks. PM GatiShakti seeks to minimise disruptions and enhance efficiency by focusing on multi-modal connectivity and timely project completion. Through a National Master Plan, it intends to create an integrated transportation and logistics network, fostering value addition and generating job opportunities. The Prime Minister noted a capital expenditure of Rs. 7.5 lakh crore (USD 90.26 billion) in 2022-23 by the central government.

National Logistics Policy: The Indian government released the National Logistics Policy 2022 (NLP). NLP aims to boost economic growth by making the logistics sector more seamless and integrated. It plans to create a single-window e-logistics market and make MSMEs more competitive. This would lower logistics costs as a percentage of GDP.

Logistics Efficiency Enhancement Programme (LEEP): LEEP is designed to improve freight transport efficiency. Associated cost, transportation time, and logistics practices like goods transferring and tracking through infrastructure technology and process interventions.

Trade facilitation: The logistics industry plays a pivotal role in facilitating domestic and international trade. Efficient logistics networks enable the smooth movement of goods across borders, fostering trade relationships and contributing to economic growth.

To enhance trade facilitation and improve trade for logistics, the following steps have been taken:

An Export-Import (EXIM) Logistics Group has been created. The Ministry of Ports, Shipping and Waterways has developed a comprehensive plan for port connectivity. It aims to address infrastructure gaps at the first and last mile, ensuring smooth goods movement. Additionally, 60 projects by the Ministry of Road Transport and Highways (MORTH) and 47 by Indian Railways have been approved to strengthen port connectivity. The Logistics Data Bank app monitors EXIM cargo, enhancing predictability, transparency, and reliability. This lowers logistics costs and reduces waste in the supply chain.

Navigating Growth: Outlook for Logistics Market's Steady Expansion Over Next Five Years

The Indian logistics sector stands as one of the world's largest and plays a crucial role in driving economic growth. Following a 2% contraction in FY21, the market experienced a robust post-COVID recovery in FY22, witnessing a remarkable 14% growth and reaching a value of US\$435 billion. As per the projections from EY, a leading global consulting firm, the logistics market in India is poised to expand further, reaching US\$591 billion by FY27.

The report further states that in FY22, organised players represented only 5.5-6% of the logistics market segments, encompassing road transportation, warehousing, and supply chain services. However, organised players are anticipated to exhibit a notable CAGR of approximately 32% between 2022 and 2027. Consequently, their market share is expected to reach 12-15% by FY27. This transformation is expected to be led by organised players' capacity to provide integrated services, leverage network- and scale-driven efficiencies, and make substantial investments in technology and engineering. These efforts are projected to promote their market competitiveness and capture a larger share of customer business.