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PROCESS OF ACQUISITION TO DESTINATION – A BANG ON ECONOMIC PRUDENCE WITH REFERENCE TO INDIAN LOGISTICS INDUSTRY

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Abstract

The study explores the significance of the logistics industry in the Indian economy and examines its sector-wise impact on economic well-being. It emphasizes how the presence or absence of transport infrastructure significantly influences economic growth and global competitiveness. With globalization expanding its scope, the study addresses the challenges of global logistics, such as trade laws, cultural differences, and the necessity for efficient cross-border transportation networks. Moreover, the research delves into factors driving the growth of the Indian logistics industry. Innovations and developments are seen as pivotal to economic progress, with intelligent logistics and smart transportation playing crucial roles. The Logistics Performance Index (LPI), a benchmarking tool by the World Bank, ranks countries based on logistics performance. In the 2023 report, India achieved an LPI rating of 3.4, securing the 38th position among 139 countries. The study substantiates the factors fueling the logistics industry with statistical evidence, highlighting technological advancements and the integration of IoT-enabled facilities as key drivers. Furthermore, the study discusses strategic initiatives aimed at enhancing India's logistics infrastructure. The PM Gati Shakti initiative seeks to streamline infrastructure development by promoting integrated planning and coordinated implementation across government departments. Concurrently, the National Logistics Policy (NLP) provides a comprehensive framework for the industry's development. Additionally, the Unified Logistics Interface Platform (ULIP) facilitates real-time information exchange among stakeholders, thereby simplifying logistics planning.

Keywords*:* Digitalisation, Effect, Indian Logistics Industry, Policies, Prudent Economy

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1 INTRODUCTION

Logistics involves the strategic planning and efficient management of material and information flow within both public and private organizations. Its fundamental purpose is to ensure the timely delivery of necessary materials to the right location. The functionality and accessibility of markets, workplaces, education, and various other services rely on a well-functioning transport system (Rodrigue, 2012).

The backbone of global trade and the interconnected world economy is intricately woven into the fabric of transportation infrastructure. This essential element serves as a driving force in society, forming the bedrock for substantial industrial and trade investments (McDaniel, 1971; Loorbach, Frantzeskaki & Thissen, 2010).

The presence or absence of robust transport infrastructure wields considerable influence over economic growth, with the current global economic recovery intimately linked to the resilience of ports, highways, railways, and airports (Stalk, 2009). A well-functioning transport infrastructure, supported by effective financing strategies, is pivotal in meeting the basic demands of logistics and mobility. The significance of international competitiveness in this realm is becoming increasingly apparent. To vie successfully on the global stage and ensure the seamless flow of traffic and goods, the development of a comprehensive and efficient transport infrastructure is imperative (Banister & Berechman, 2001). In essence, the state of a nation's transport infrastructure becomes a defining factor in its ability to compete and thrive in the complex landscape of global trade and economic dynamics.

The significance of LSQ and its effect on customer satisfaction was acknowledged by Saura et al. (2008). Numerous empirical studies that established the beneficial impact of LSQ on customer satisfaction followed, supporting this conclusion (Daugherty, Stank, & Ellinger, 1998) Additionally, consumer loyalty and satisfaction have been linked to LSQ and market share (Daugherty, et al., 1998).

1.2 Global Logistics

The global logistics sector exhibited substantial growth, reaching a valuation of $9,833.8 billion in 2022 and is estimated to surge to $16,794.7 billion by 2032, growing at a Compound Annual Growth Rate (CAGR) of 5.6% from 2023 to 2032 (Allied Market Research, 2023). Impressively, global logistics costs reached a staggering $9 trillion in 2020, constituting 10.7% of the global Gross Domestic Product (GDP) of $85.24 trillion that year (Statista Report, 2023).

The scope of logistics has increased due to globalization. The complexities of global logistics, including trade laws, cultural disparities, and the need for effective cross-border transportation networks, are examined by various academics.

Natural disasters, interruptions in the supply chain, and geopolitical events are just a few of the hazards that logistics operations must contend with. To maintain business continuity in the face of adversity, Ivanov, Das and Choi (2018) investigate risk management tactics and resilience in logistics.

Looking ahead, the roadways category is anticipated to dominate the logistics market, accounting for over 44% of the market share by 2030 (Vantage Market Research, 2023). This surge is attributed to the growing demand for roadway trucks, particularly for transporting retail goods over extensive distances, especially in residential areas. To optimize logistics services in road transportation, retail enterprises are urged to select vehicles and cargo options with substantial carrying capacities, ensuring cost-efficiency and efficacy in the delivery process.

1.3 Indian Logistics

A crucial factor driving this expansion is the substantial rise in India's logistics industry, which serves as a backbone for numerous businesses and employs approximately 22 million people. As of 2021, the logistics sector in India commanded an impressive valuation of US$ 250 billion, and the future outlook is even more promising. Projections indicate a remarkable surge to an estimated US$ 380 billion by 2025, showcasing a robust year-on-year growth rate ranging from 10% to 12%. In line with industry standards, the government is actively engaged in plans to trim logistics and supply chain costs in India from the current 13-14% of GDP to 10%.

The breakdown of the logistics sector in 2021 revealed a segment-wise distribution, with roads holding the majority share at 60%, followed by rail at 31%, water at 8%, and air at 1%. This delineation underscores the significance of different modes of transportation in the Indian logistics landscape.

A noteworthy achievement in May 2022 positioned India at the global forefront, boasting the highest number of ongoing or planned infrastructure projects valued at a substantial USD 25 million. In comparison, the United States reported 1,866 projects, and China followed closely with 1,175 projects. This data showcases India's proactive stance in infrastructure development on the world stage, reinforcing its commitment to fostering a dynamic and thriving logistics sector.

1.4 Indian Logistics and Economic Development

Logistics, a vital sector shaping a nation's economic strategy, holds paramount importance in the globalized and competitive world. This significance stems from the pivotal role logistics plays in driving both national and firm-level competitiveness, which is fundamental to job creation and economic growth, as emphasized in the World Bank Report (2014). Notably, countries and firms with superior logistics performance often boast higher incomes and development levels, showcasing a strong correlation Zhu and Huo (2011) underscore that the growth of the logistics industry and local economic development are mutually reinforcing.

The Logistics Performance Index (LPI), an interactive benchmarking tool by the World Bank, regularly publishes logistics performance rankings. In the 2023 report, India achieved an overall LPI rating of 3.4, securing the 38th position among 139 countries. Particularly commendable is India's standing among lower-middle-income countries, highlighting its consistent improvement since 2018 (Assocham Report, 2023).

The logistics sector significantly contributes to employment in India, currently employing around 22 million individuals. This figure is anticipated to surge to a staggering 40 million by 2030 (AxesTrack Report, 2023). The National Skill Development Corporation (NSDC) recognizes the logistics sector as the top employment-generating sector in India, especially evident in the aftermath of the coronavirus pandemic (ITLN, 2020). This underscores the sector's resilience and its capacity to stimulate employment, which is crucial for economic rejuvenation.

1.5 Indian Logistics & Export

Transportation stands as a linchpin of a nation's development, wielding a profound impact on productivity and market integration, consequently influencing export levels (Garcia-Escribano, Goes, & Karpowicz, 2015). The significance of an efficient transportation system cannot be overstated, as it plays a pivotal role in facilitating the seamless flow of goods—an essential element in international trade. Conversely, subpar infrastructure poses a significant hindrance, limiting a country's capacity to integrate effectively into the global economy (Button & Yuan, 2013)

The establishment of a well-developed transport infrastructure becomes instrumental in mitigating adverse effects, providing optimal locations for economic activities, reducing transportation costs (Schwab, 2018), and synergizing with labor and capital factors of production (Bruinsma et al., 1989).

Research conducted by Portugal-Pérez and Wilson (2010) reinforces the positive correlation between the quality of transportation infrastructure and expanding exports. This phenomenon is observed across 101 countries, including developing economies. Additionally, the work of Rehman, et.al. (2020) underscores how comprehensive infrastructure, encompassing roads, rails, and airports, contributes to the prosperity of South Asian economies. This contribution is manifested through the propulsion of total exports, the reduction of trade deficits, and the cultivation of robust regional economic relations.

The transformative impact of investments in road infrastructure on exports and transportation costs reduction is evidenced in the study by Cosar and Demir (2014) in the context of Turkey. Similarly, Kodongo and Ojah (2016) establish a strong link between the growth in Sub-Saharan Africa and sustained investments in road infrastructure, significantly enhancing accessibility.
Efficient logistics services play a pivotal role in enhancing a country’s participation in global market competitiveness (Arvis, et.al, 2010). Martí, et.al, (2014a) further elaborate that countries witnessing an enhancement in their logistics performance tend to experience a substantial increase in trade.

Despite the challenges posed by the global economic slowdown, Indian merchandise exports have shown resilience, boasting the highest compound annual growth rate (CAGR) in recent years. The Indian Government has set ambitious targets to handle more cargo through alternative methods such as railways, ports, and rivers by 2025, aiming to substantially boost its exports. This strategic shift is expected to not only enhance the efficiency of logistics but also bolster India's position in the global export landscape

1.6 Factors Determining the Indian Logistics Industry

Shikur (2022) emphasizes that logistics services, shipment, customs, and infrastructure are crucial aspects that significantly and positively impact economic growth. The efficiency and effectiveness of these elements directly influence a nation's economic trajectory.

Manocha and Sahni (2019) explore the logistics industry in greater depth, identifying nine key factors that substantially affect freight rates and, consequently, the entire logistics sector. Understanding and optimizing these factors are essential for enhancing competitiveness in both domestic and international business environments.

1.7 Problem Statement

The logistics sector is a critical determinant of any progressive country's economic performance. In India, this sector is experiencing rapid growth, positioning the country competitively among developed nations such as the USA, China, and UAE. As of 2018, India held the 42nd position in the Logistics Performance Index. Enhancing this ranking is imperative for improving efficiency and competitiveness within the logistics industry. This study aims to analyze the market size of India's logistics sector and its contribution to compound annual growth rate (CAGR) across various logistics streams.

1.8 Objectives

a) To assess the performance of the Indian freight and logistics market.
b) To evaluate the level of risk management across different industry sectors.
c) To analyze the size and operational dynamics of the logistics market in India.

2 METHODOLOGY

A research design involves the collection and analysis of data aligned with the study's objectives. In this study, the researcher employed the descriptive research method as outlined by Mohideen, Kumar and Maran (2018) and utilized secondary data for analysis, following the approach discussed by Maran et al. (2022). The study specifically examines sector-wise market sizes and analyzes risk levels over a ten-year period to forecast market trends and projections for the next two years.

3 RESULT AND DISCUSSIONS

Table 1: Indian Freight and Logistics Market

Type of Logistics	CAGR %
Courier, Express, and Parcel	5.84
Freight forwarding	10.08
Freight Transport	6.74
Warehousing and storage	5.48
Other services	4.33

4 INTERPRETATION

The table above illustrates different types of Indian logistics and their contributions to the compound annual growth rate (CAGR). In the year 2022-23, the freight forwarding segment contributed the highest percentage at 10.08% to the Indian CAGR. Following closely, the freight transport segment held the second position with 6.74%. The third position was shared by both the freight transport and courier, express, and parcel segments, each contributing 5.84%. The segment with the lowest contribution was other services, accounting for 4.33%.

Table 2: Size of Indian Logistics

YEAR	$ BILLION
2016-17	160
2017-18	176
2018-19	194
2019-20	205
2020-21	183
2021-22	209
2022-23	235
2023-24	260
2024-25	287
2025-26	317
2021-22	209

The table above displays the size of the Indian logistics market over the past seven years in USD. According to the analysis, in 2016-17, the Indian logistics market was valued at $160 billion. This figure has gradually increased to $235 billion in 2022-23. However, in the year 2020-21, the market size declined to $183 billion primarily due to the impact of the Covid-19 pandemic. In the remaining periods, the growth in market size has been robust, indicating a healthy Indian logistics market both domestically and internationally. Over the past seven years, the Indian logistics market has grown by 146%. The researcher has projected market size for the years 2023-24, 2024-25, and 2025-26. The forecasts show positive trends, signaling promising prospects for the Indian logistics sector in the global competitive market. Overall, from 2016-17 to 2025-26, the growth rate of the logistics market size is projected to increase sharply by 196%. Key factors contributing to this growth include favorable Indian logistics policies, increased infrastructure investments, and significant private and foreign investments in the logistics sector.

Table 3: Sector Wise Percentage of Risk Management

Optimized risk level-Sector wise	Percentage of risk management
Telecom and Communication	72
Pharmaceutical	71
Automotive and Ancillary	69
FMCG	68
Healthcare Delivery	66
Tourism and Hospitality	65
BFSI	64
Aerospace and defence	62
Biotech and lifesciences	62
Education skill development	62
Manufacturing	62
Media and Gaming	61
IT ITES	61
Transportation and Logistics	60
Agriculture and Food processing	59
New age and Startup	59
Energy	59
Infra and Realty	59
Chemicals and Petrochemicals	57
Metals and Mining	57

The table above illustrates various industry categories and their associated levels of risk in logistics management. The study reviewed two types of risk management levels: superior and optimal. In the optimal risk management category for logistics and operations sectors, the sectors with the lowest risk management levels are Chemicals and Petrochemicals, and Metals and Mining. Following these sectors, the remaining industries in the optimized category exhibit risk management levels ranging from 59% to 65%, encompassing sectors from Infrastructure and Realty to Tourism and Hospitality. In the superior risk management category, sectors with very high-risk levels include Telecom and Communication, Pharmaceutical, Automotive and Ancillary, FMCG, and Healthcare delivery.

5 CONCLUSION

Logistics, a crucial sector in shaping a nation’s economic strategy, holds paramount importance in today's globalized and competitive environment. Its significance lies in driving

competitiveness for both nations and firms, essential for job creation and overall economic growth.

The conceptual research findings focus on the growth of the logistics sector in India, analyzing the contributions of various industrial sectors to the Indian economy and the impact of different types of logistics on compound annual growth rates. The study also assesses sector-wise risk levels, enabling insights into risk management strategies to enhance operational efficiency and bolster contributions to the Indian economy.

With the introduction of the new Indian logistics policy and increased investments in infrastructure such as roads, ports, railways, and airports, along with advancements in digitalization and financial policies, the Indian logistics sector has achieved the 38th position in the Logistics Performance Index 2023 among 139 countries globally. This marks a significant improvement of six places in just five years, underscoring the robust growth and sustainability of the Indian logistics industry on the global stage.

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