

ANALYSIS ON "LOGISTICAL CHALLENGES FACED BY PRODUCT EXPORTERS"

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Abstract: This study investigates the logistical challenges encountered by product exporters, with a particular focus on Tamil Nadu. Despite the global expansion of trade, limited research exists on sector-specific difficulties, especially for small exporters in emerging markets. This research aims to fill that gap by analysing operational, financial, and regulatory barriers that hinder efficient export logistics. Key issues explored include high freight costs, shipment delays, inadequate infrastructure, and customs clearance inefficiencies. The study also assesses how trade policies, international regulations, and economic shifts influence export activities. Emphasis is placed on evaluating market access barriers such as tariff and non-tariff measures, sanitary standards, and certification requirements. Moreover, the study addresses the financial constraints exporters face, such as limited credit access, high transaction costs, and currency fluctuations. It also considers the growing relevance of e-commerce as a potential tool for overcoming traditional trade barriers. The findings aim to provide practical insights that can help exporters optimize logistics, comply with international standards, and improve their competitiveness in the global market. The research identifies core issues including high transportation costs, shipment delays, container shortages, and poor last-mile connectivity. Regulatory bottlenecks such as cumbersome customs procedures, complex documentation requirements, and inconsistent trade regulations are also analysed.

Keywords: Export logistics, shipment delays, freight costs, infrastructure challenges, customs clearance, export documentation, trade policies, market access barriers, tariff and non-tariff measures, export finance, currency fluctuations, e-commerce, regulatory bottleneck small exporters.

I. INTRODUCTION

In an increasingly interconnected global economy, efficient logistics play a pivotal role in determining the success of export-oriented businesses. Product exporters, particularly in developing regions, face a multitude of logistical hurdles that directly impact their ability to deliver goods competitively and on time. These challenges range from inadequate infrastructure and high freight costs to regulatory complexities and customs clearance delays. For small and medium enterprises (SMEs), the situation is further complicated by limited access to financing, inconsistent trade policies, and technological gaps that hinder supply chain visibility.

Despite the growing importance of global trade, there remains a significant lack of sector-specific research, especially in regions like Tamil Nadu, where industries such as textiles and agriculture drive substantial export activity. This article aims to explore the multifaceted logistical barriers faced by exporters, assess their operational and economic implications, and highlight strategies—both policy-driven and technological—that can enhance efficiency and resilience in the export logistics ecosystem.

Small and medium-sized exporters face the brunt of these challenges due to their limited bargaining power, scarce access to trade finance, and dependence on intermediaries for shipping and documentation. In regions like Tamil Nadu, where exports of textiles, agricultural produce, and handicrafts play a vital role in the local economy, logistical inefficiencies can significantly constrain growth potential. Moreover, the landscape is further complicated by rapidly evolving trade regulations, global supply chain disruptions, and the uneven adoption of digital logistics technologies.

II. NEED FOR THE STUDY

This study aims to identify the major challenges faced by exporters in international trade, including issues related to operations, finance, and logistics. It seeks to help exporters find practical solutions to these problems, enabling them to expand their businesses in global markets. The research also focuses on analyzing the impact of international trade policies, regulations, and government interventions on export activities.

Particular attention is given to logistical challenges such as transportation issues, shipment delays, and high shipping costs. Additionally, the study explores how global economic changes, trade agreements, and international crises influence export performance. Finally, it examines critical issues such as high operational costs, payment delays, and currency fluctuations that directly affect the profitability and sustainability of export businesses.

III. REVIEW OF LITERATURE

S. P. Padaliya¹ and R. S. Pundir²(2022) The mango is one of the most ancient and important Asian fruit. India is the world's largest mango producer, accounting for 45 per cent of global mango production. Despite being the world's largest producer of mangoes, India only exports a very small amount of its produce owing to several constraints. The study revealed major challenges faced by mango exporters in Gujarat state. Major challenges were found to be high international freight charges, difficulties in custom clearance, sanitary and phytosanitary (SPS) measures, unavailability of quality mangoes in sufficient quantity, difficulties in certification, high local transportation charges, lack of standardization on post harvest handling, poor infrastructure facilities like cold storage, pack house, etc., competition from other exporting countries, lack of institutional support with respect to credit, problem finding reliable foreign distributor, Unavailability of market information, Price fluctuation of the commodity supply at home country, Problems in quoting price with fluctuating exchange rates, Labelling and packaging requirement, Confusing foreign import regulations and Unavailability or untimely export incentive.

Rajat Acharyya⁹(2024) This chapter presents a broad overview of the shift in policy paradigm after The Crisis and its ramifications for the nature, composition, and growth of India's foreign trade. It also examines the development paradox and challenges that the policymakers. In the current world economic order and in the context of changes in the world demand that necessitate furtherance of exports at an extensive margin, India faces the need to make export-led growth stronger.

Arie Kusuma Paksi(2024) The trade relationship between Indonesia and China has evolved significantly, presenting substantial opportunities for Indonesian agricultural and processed food exports. This research explores the potential and challenges of exporting key products such as green beans, coffee, and porang to China. Leveraging Indonesia's diverse agricultural base and the growing demand in China, this study analyzes production capabilities, market trends, and consumer preferences. It identifies significant barriers, including stringent regulatory requirements and logistical challenges, and proposes strategies to overcome them. Key recommendations include enhancing government support through policy measures and trade agreements and investing in capacity building initiatives such as training programs and technological advancements.

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Md. Saheb Ali Mondal¹*, Mohammad Main Uddin², Nazma Akter³(2024) The textile industry plays a pivotal role in Bangladesh's economic development by contributing significantly to employment generation, GDP growth, and foreign exchange earnings. This study aims to analyze the current state of the sector, its growth trajectory, and the factors influencing its performance. Using secondary data from relevant sources, a comparative analysis was conducted with tabulated and graphical representations in MS Excel. The findings reveal that, despite its contributions, the sector faces challenges such as fluctuating growth rates, rising global competition, and compliance with sustainability standards. Key factors affecting the industry's performance include low labor costs, the emergence of green factories, foreign direct investment (FDI), and the demand for high-value apparel products. While Bangladesh has set an ambitious target of \$100 billion in textile exports by 2030, achieving this goal requires strategic policy reforms, enhanced infrastructure, and capacity-building initiatives. Robust public and private sector collaboration is essential to meet the evolving expectations of multinational buyers and sustain long-term growth. This study underscores the need for sustainable policies, innovation, and investment in technology to ensure the industry's resilience and competitiveness in the global market.

Dr Mohammad Mainuddin Mollah¹ , Md. Mainul Islam² (2024) The Ready-made Garments (RMG) industry is one of the most significant earning sectors in Bangladesh. It generates over 80% of the country's total exports and provides

employment opportunities for about 4.4 million people. However, the labor-management relations in this industry do not meet global standards. This research-based article focuses particularly on the labour-management relations in the RMG industry in Bangladesh. The study explains RMG workers employment and working conditions, the legal framework of labour-management relations, workers involvement with the trade unions and the existing dispute settlement and collective bargaining process in the RMG industry and their effectiveness. Finally, the study finds out the opinions of the both workers and management on policy recommendations for ensuring labour management relations in the RMG industry in Bangladesh.

IV. OBJECTIVES OF THE STUDY

- To identify the existing problems and challenges faced by exporter during the movement of the cargo.
- To evaluate the impact of these challenges on the day-to-day operations and overall performance of business.
- To explore how policies and regulation impact exports.
- To understand problems related to transportation, delays, and high shipping costs.
- To understand how economic changes, trade policies, and crises effect exports.

V. RESEARCH METHODOLOGY

The research design refers to the overall plan for conducting the research. It includes the type of research, the research questions, the data collection methods, and the data analysis techniques. The research design should be carefully planned and tailored to the specific research question being addressed.

It outlines the structure, framework, and procedures for collecting and analysing data to address research questions or objectives effectively. Research design encompasses various elements, including the type of research (e.g., qualitative, quantitative, mixed-methods), the selection of research participants, the sampling strategy, the data collection methods, and the data analysis techniques.

A well-defined research design ensures that the study is conducted systematically, rigorously, and in accordance with the goals of the research, allowing researchers to generate meaningful findings and draw valid conclusions.

DATA COLLECTION

Data collection methods are essential in systematically gathering information for research purposes. The approach used in this study involves obtaining data from both primary and secondary sources to provide a comprehensive understanding of how freight forwarding documentation impacts customs clearance processes. The selection of these methods is guided by the research objectives, which aim to explore the challenges and effects of documentation in facilitating smooth customs procedures.

SAMPLING TECHNIQUE

Simple Random Sampling (SRS) is one of the most fundamental and widely used probability sampling techniques. In this method, every individual or unit in the entire population has an equal and independent chance of being selected. It ensures that the sample is unbiased and truly representative of the population, which is critical for producing reliable and generalizable results.

In the context of ANALYSIS ON "LOGISTICAL CHALLENGES FACED BY PRODUCT EXPORTERS. Simple Random Sampling can be used to select participants such as customs officials, freight forwarders, exporters, or importers to gather unbiased insights about current challenges and the effectiveness of end-to-end custom approaches.

DATA ANALYSIS TOOLS

The collected data was processed and analyzed using SPSS (Statistical Package for the Social Sciences) software. The following statistical tools were applied.

Percentage Analysis: To understand the distribution of demographic variables and key operational practices.

Chi-square test: To test the significance of differences in perceptions across different age groups regarding Culture of Inclusion and Diversity.

CONCEPTUAL FRAMEWORK

INDEPENDENT VARIABLE

Logistical Challenges

- Transportation Customs and
- Supply Chain and Inventory Issues
- Technological Limitations
- External Environmental Factors

MODERATING VARIABLES

Optional Influencing Factors

- ❖ Firm size and export experience
- ❖ Use of third-party logistics providers (3PLs)
- ❖ Adoption of logistics technologies
- ❖ Government export support

DEPENDENT VARIABLE

Quality Of Freight Forwarding Documentation

- ❖ Delivery reliability
- ❖ Export volume growth
- ❖ Customer satisfaction

Chi-square test table

Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	10.908 ^a	3	.012
Likelihood Ratio	12.290	3	.006
Linear-by-Linear Association	10.086	1	.001
N of Valid Cases	43		

a. 5 cells (62.5%) have expected count less than 5. The minimum expected count is .65.

NULL HYPOTHESIS

INTERPRETATION

The Chi-Square test results show that there is no statistically significant association between the variables (Pearson Chi-Square $p = 0.130$). Similarly, the Likelihood Ratio ($p = 0.059$) and Linear-by-Linear Association ($p = 0.089$) results also indicate no significant relationship. Additionally, a large proportion of cells (87.5%) have expected counts less than 5, suggesting that the test results should be interpreted with caution due to the small sample size in some categories.

VI. DISCUSSION

Exporters today face several critical logistical challenges that hinder their ability to compete effectively in the global market. One of the most significant issues is inadequate infrastructure—poor road connectivity, insufficient warehousing, and congested ports often result in delays and increased operational costs.

Alongside this, complex and inconsistent customs regulations across countries add to the burden, with exporters frequently encountering documentation delays and compliance issues. Rising freight costs and global disruptions—such as the COVID-19 pandemic and geopolitical conflicts—have further intensified these problems, leading to container shortages and unpredictable shipping schedules.

Small and medium-sized enterprises (SMEs) are particularly vulnerable to these challenges due to limited financial and logistical resources. Many also face barriers in adopting advanced technologies, such as real-time tracking and automated logistics systems, which are becoming essential for efficient export operations. To address these challenges, there is a growing need for stronger public-private partnerships focused on improving infrastructure and streamlining trade regulations. Furthermore, digital transformation and the diversification of supply chains are crucial strategies that can enhance resilience, improve visibility, and reduce delays in export logistics.

VII. CONCLUSION

Logistical challenges remain a major constraint for product exporters, directly impacting efficiency, cost, and market competitiveness. Issues such as inadequate infrastructure, complex regulatory environments, rising freight costs, and limited access to digital tools continue to disrupt smooth export operations—particularly for small and medium-sized exporters. However, these challenges also present opportunities for reform and innovation. By investing in modern infrastructure, simplifying trade procedures, embracing digital technologies, and building more resilient and diversified supply chains, exporters can better navigate the complexities of global trade. Coordinated efforts among governments, private stakeholders, and international trade bodies will be key to creating a more streamlined, responsive, and competitive export environment in the years ahead.

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