

Thesis Report on
“Impact of Transportation Logistics on Supply Chain Efficiency in Ready-Made Garments Industry of Bangladesh”.

Submitted by:

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ID: MBA2501034019

Program: Master of Business Administration (MBA)

Major: Supply Chain Management

Department of Business Administration

Sonargaon University (SU)

Submitted to:

Department of Business Administration

Faculty of Business

Sonargaon University (SU)

Submitted for the partial fulfillment of the degree of
Master of Business Administration



Sonargaon University (SU)
Date of Submission: January 03, 2026.

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Letter of Transmittal

January 03, 2026.

Ummah Tafsirun

Lecturer

Dept. of Business Administration

Sonargaon University (SU)

Subject: Submission of thesis report titled “**Impact of Transportation Logistics on Supply Chain Efficiency in Ready-Made Garments Industry of Bangladesh**”.

Dear Madam,

With most respectfully to state that I am pleased to submit my thesis report titled “**Impact of Transportation Logistics on Supply Chain Efficiency in Ready-Made Garments Industry of Bangladesh**”. This report is an essential part of my MBA degree requirements, and I had the privilege of completing my Thesis at “**Impact of Transportation Logistics on Supply Chain Efficiency in Ready-Made Garments Industry of Bangladesh**”.

This research was conducted under your valuable guidance and includes insights from relevant literature, data gathered through company records, and analyses of the industry specific challenged faced in Supplier selection criteria. I hope this report meets your Expectations and contributes meaningfully to the field of supply chain management.

I would really be grateful if you share your precious thoughts regarding the report. Also, if you wish to have further clarification about any aspect of my report, I would gladly answer your queries with further explanation, Thank you again for your support and patience.

Yours Sincerely,

Md. Azizul Islam

ID: MBA2501034019

Program: Master of Business Administration (MBA)

Major: Supply Chain Management

Department of Business Administration

Sonargaon University (SU)

Declaration of Student

This is **Md. Azizul Islam**, a student of Business Administration, ID: MBA2501034019 from Sonargaon University (SU) would like to solemnly declaration here that this Report on **“Impact of Transportation Logistics on Supply Chain Efficiency in Ready-Made Garments Industry of Bangladesh”**. has been authentically prepared by me under supervisor of **Ummah Tafsirun**, Lecturer, Department of Business Administration, Sonargaon University.

I didn't breach any copyright act internationally. I am further declaring that I did not submit this report anywhere for awarding any degree, diploma, or certificate.

Sincerely Yours,

Md. Azizul Islam

ID: MBA2501034019

Program: Master of Business Administration (MBA)

Major: Supply Chain Management

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Letter of Authorization

I hereby confirm that the project “**Impact of Transportation Logistics on Supply Chain Efficiency in Ready-Made Garments Industry of Bangladesh**”. is a genuine effort by **Md. Azizul Islam**. The research was conducted under my guidance. I also affirm that, to the best of my knowledge, the content presented in this report has not been included in any other project report or dissertation that led to the award of a degree to any candidate earlier, whether in the same context or a different one.

Ummah Tafsirun

Lecturer

Department of Business Administration

Faculty of Business

Sonargaon University (SU)

Acknowledgement

In the beginning, I would like to convey my sincere appreciation to the Almighty Allah for giving me the strength and ability to finish the task.

I want to thank my academic supervisor **Ummah Tafsirun**, Lecturer, Department of Business Administration, Sonargaon University (SU), for providing me with all the necessary help for the completion of this report. I want to give the greatest thanks to her for guiding me as an advisor to start and complete this report successfully.

I am grateful to my supervisor **Ummah Tafsirun** for her valuable direction, help and constructive criticism over this research. This thesis took shape because of these insights. I also want to express my gratitude towards all the faculty and staff from Sonargaon University who have been with me at both my thick and thin times throughout this whole program. I want to thank my family and friends for their unwavering support, encouragement through this journey.

Abstract

This thesis investigates how transportation logistics impacts supply chain efficiency in Bangladesh's Ready-Made Garment (RMG) industry, which generates over 80% of the nation's export earnings.

Core Objectives are:

Analyze the relationship between transportation logistics and supply chain management in the RMG sector.

Identify real-time obstacles such as port congestion, road maintenance issues, and lead time delays.

Determine the most efficient transportation modes to ensure on-time delivery and reduce costs.

Key Findings are:

Infrastructure: 70% of respondents view logistics as vital for RMG development, yet 50% believe national highways are poorly maintained.

Mode Preference: 60% of participants favor road transport over rail or water due to its ease of development and current accessibility.

Logistics Management: 70% of companies handle transportation internally, though 40% acknowledge that Third-Party Logistics (3PL) could improve supply chain maintenance.

The study concludes that improving land logistics is essential for the RMG sector to remain globally competitive as the market shifts toward "fast fashion". It recommends government-led infrastructure investment, such as urban logistics villages, and the adoption of advanced service frameworks like "Quick Response" to minimize operational costs and lead times.

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Chapter 1

Introduction

1. A. INTRODUCTION

Nowadays, Bangladesh has become an essential supplier of quality garments in the world. The fantastic growth of Bangladesh's clothing industry has changed dramatically. However, still, now proper supply chain procedure not yet established. As a result peak of customer satisfaction is not at an acceptable point. By manufacturing, procurement, and transportation, Supply chain management (SCM) divided into these main areas, which include decisions about which input elements to use, production quantities, inventory levels, dissemination network composition, and final product transportations. Logistics management is a component of SCM that focuses on how and when raw materials, intermediate products, and finished products transported from their origin to their destination. Therefore, it is safe to say that goods rarely consumed where they produce and transport services are an essential characteristic among all elements of the supply chain.

The purpose of this study is to identify how transportation in logistics (By Road) can be useful in the RMG sector in Bangladesh. It starts with introducing the expansion of logistics in RMG and transport-related sectors based on a historical review. Afterward, it reviews the interconnections of transportation, logistics& RMG. Finally, this article discusses and summarizes the potential development of logistics transportation in the RMG sector in Bangladesh.

1. B. STATEMENT OF THE PROBLEM

The role of transport in a logistics system is more complicated than transporting goods to owners. That complexity only enabled by high-quality management and properly handled transportation systems ensure that goods are sent to the appropriate place to meet customer requirements. It delivers effectiveness and builds a connection between producers and consumers. Hence, transportation is the foundation of the productivity of business logistics and extends more services to the logistics system. Besides, excellent transportation systems that play a role in logistics activities can not only improve service quality but also improve competition between companies.

The main problem of Transportation in Logistics is port congestion with lead time. Customer dissatisfaction due to not deliver the goods on time. In the overload time of shipment, they cannot maintain proper follow-up the schedule of the vessel of shipment. Consolidation of all orders cannot place in one warehouse due to lack of adequate place; Clearance docs is another main reason to delay shipment as some unethical incident occurs frequently.

Transportation systems enable goods and products to be transported, provide prompt and local effectiveness, and support added value under the principle of least payment. Transportation influences the outcome of logistics activities, production, and sales. Transportation costs can view as objective market limitations in a logistics system. The value of transportation varies from industry to industry. For smaller, lighter, and more valuable products, shipping costs account for only a small portion of sales and are not taken into account. For these more substantial, heavier, lower value products, transportation is of greater importance because it represents a considerable portion of sales and has a more significant impact on profits.

1. C. OBJECTIVE OF THE STUDY

The purpose of this study is to understand the current situation, especially a few significant factors in the present business process, as well as how to ensure on-time delivery through proper logistics system, reduce transport costs and expand productivity by mechanization and transportation planning business rules of RMG export from Bangladesh. The general objective is to establish how efficient transportation can have a significant contribution to the RMG sector in Bangladesh.

However, the study objectives are:

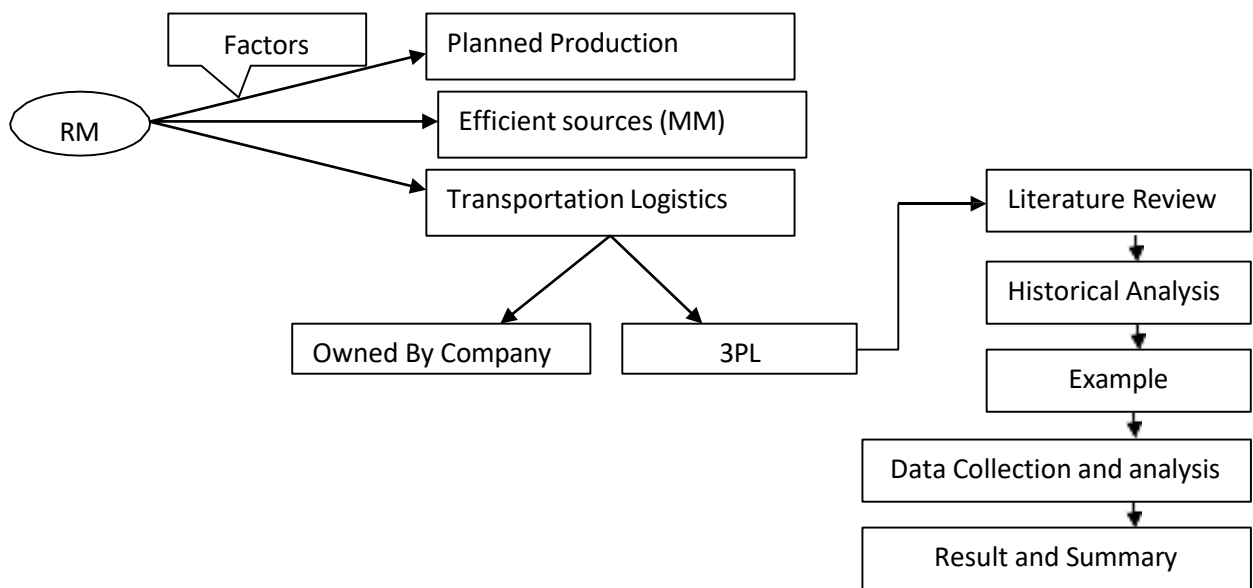
- 1) To analyze the relationship between transportation logistics in SCM and RMG.
- 2) Finding out the effective transportation logistics systems in RMG considering real-time obstacles

1. D. RESEARCH QUESTION

- a) How does transportation logistics work in RMG?
- b) What problems face an effective transportation logistics system?
- c) What are the solutions (with options) for these obstacles?

1. E. STRUCTURE OF THE REPORT

This report structured in such a chronological manner, which starts from the literature review towards historical data analysis and field experience than later on analysis with information collected from the field. This flow chart has drawn as below,



FC 01: Structure of the report

1. F. SIGNIFICANCE OF THE STUDY

The garment industry is the backbone of Bangladesh's economy, accounting for over 80% of total export earnings. As the global fashion market shifts towards "fast fashion," the efficiency of transportation logistics has become a critical determinant of success. This study holds significant value for the following stakeholders:

1. Enhancing Global Competitiveness

In the RMG sector, lead time is as important as product quality. This study identifies the logistical bottlenecks—such as port delays and inefficient inland transportation—that hinder Bangladesh's ability to compete with countries like Vietnam or India. By optimizing logistics, the industry can ensure faster delivery, thereby retaining its position as a preferred sourcing destination.

2. Operational Efficiency for Manufacturers

For RMG factory owners and managers, this research provides insights into how streamlined logistics can reduce "dead time" and operational costs. It highlights how integrated supply chain management can minimize inventory holding costs and prevent shipment cancellations due to delays.

3. Policy Formulation for Government and Authorities

The findings of this study can serve as a guide for policymakers and organizations like the BGMEA (Bangladesh Garment Manufacturers and Exporters Association) and the Port Authorities. It emphasizes the need for infrastructure development, such as deep-sea ports, improved highway connectivity (e.g., Dhaka-Chittagong corridor), and digitalized customs procedures.

4. Economic Resilience and Sustainability

Efficient logistics contribute to the overall economic stability of Bangladesh. By reducing waste in the supply chain and lowering the carbon footprint through optimized routing, this study aligns the RMG industry with global sustainability trends, which are increasingly demanded by international buyers.

5. Contribution to Academic Literature

While there is extensive research on RMG production, there is a relative scarcity of studies specifically focusing on the intersection of transportation logistics and supply chain efficiency within the Bangladeshi context. This study fills that gap, providing a framework for future researchers to explore smart logistics and Industry 4.0 applications in the local garment sector.

Chapter 2

Literature Review

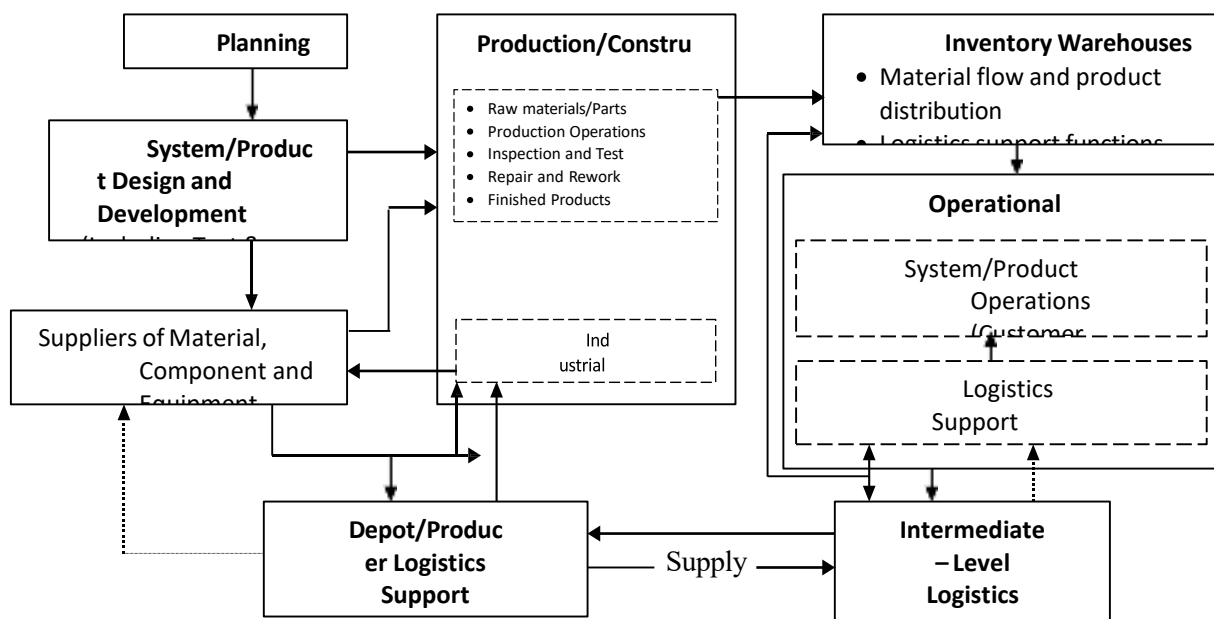
1. A. DEFINITION OF LOGISTICS

According to the Society of Logistic Engineers (SOLE, 1974), Logistics is the art and science of engineering, technical activities & management related to the maintenance and supply of resources to support customer requirements, product design, goals, planning and operations.

As stated to the Council of Logistics Management, Logistics includes integrated planning, control, implementation and checking of complete product flows (including necessary information flows), internal and network-wide material, industrial, and trading companies throughout the product life cycle in order to comply customer requirements.

The process provides that the correct product arrives in the proper place at the appropriate time and in the proper quantity to meet customer needs, according to the Institute of Logistics and Transport.

2. B. ELEMENTS OF LOGISTICS



FC 02: Elements of Logistics

Source: Benjamin S. Blanchard. "Logistics Engineering and Management." 6th ed. Prentice-Hall, 2004. P11

2. C. DIFFERENT FORMS OF LOGISTICS OPERATION

i. SUPPLY CHAIN MANAGEMENT

Supply Chain Management (SCM) is operating a manufacturing system in a broad sense, and this application of SCM can provide this industry to meet the needs of the brand-new business surroundings. (Ross, 1998) defines SCM as a 'continually emerged management ideology that combines the combined dynamic skills and resources of business efficiency with the supply chain of firms within and outside firms, as well as developing innovative solutions for a highly competitive, customer-rich supply system and Of the customer focuses on the integration of market products and data flows to form distinct, distinct sources of value."

ii. REVERSE LOGISTICS

The concept of reverse logistics is the process of planning, implementing and controlling adequate, the profitable flow of raw materials, finished products, inventory and related information from consumption to production (Rogers & Tibben-Lembke, 1998).

Two significant reasons for the rise of reverse logistics are market globalization and environmental protection policies. The success of reverse logistics can help companies increase service levels and reduce production process costs. Nonetheless, the system requires expertise in logistics management and specific facilities. Therefore, third-party logistics services provide another option for reverse logistics systems for small businesses (Bempong, 2019).

iii. MARITIME LOGISTICS

The shipping/maritime logistics industry plays a vital role in global freight, which provide sreasonable and vast carrying scope to consumers. The marine transportation industry can divide into three major classifications:

- (1)Liner shipping logistics: This business based on the same ships, routes, prices, and regular voyages.
- (2) Automated shipping logistics: The primary purpose of industrial transportation is to ensure the supply of raw materials.
- (3)Stray shipping logistics: This transportation characterized by irregular transportation prices, unstable transportation routes, and schedules. It usually carries special cargo such as

dry bulk and crude oil. (Tseng, Yue & Taylor, 2005).

iv. AIR FREIGHT LOGISTICS

It provides speed delivery, guarantee, convenience, and frequent access to usual destinations, but disadvantages are higher shipping costs.(Reynolds-Feighan, 2001) said, "When the value of the weight of the goods per unit is comparatively high, and delivery speed is a crucial factor, choose air logistics. "The characteristics are as follows: (1) Airplanes and airports disconnected.

So, the industry needs to prepare the aircraft for operation; (2) it can speed up the transportation at distant destinations; (3) the air transportation is not affected by the terrain.

v. LAND LOGISTICS

Land logistics is an essential bind in logistics movements, which boosts the air and sea transport services from airports and seaports. The high level of accessibility of inland areas is the most positive feature of land logistics. Rail transportation, road freight, and pipeline transportation are the main modes of transportation for land logistics.

The overuse of land transportation also brings many issues, such as traffic congestion, pollution, and traffic accidents. In order to improve the reliability and capability of land transport, a revolution in transport policy and management, such as price, will be required in the future.

In this study, our focus is on Land logistics, especially in the road transportation sector. Because according to LGED total length of paved road is about to be 21,000 km consisting of 3,000 km of national and 1,800 km of regional highways and 16,200 km of Feeder-A and B roads which is ready for use in Bangladesh, whereas railways only 2835 KM and waterways are only 8,433 km is navigable.

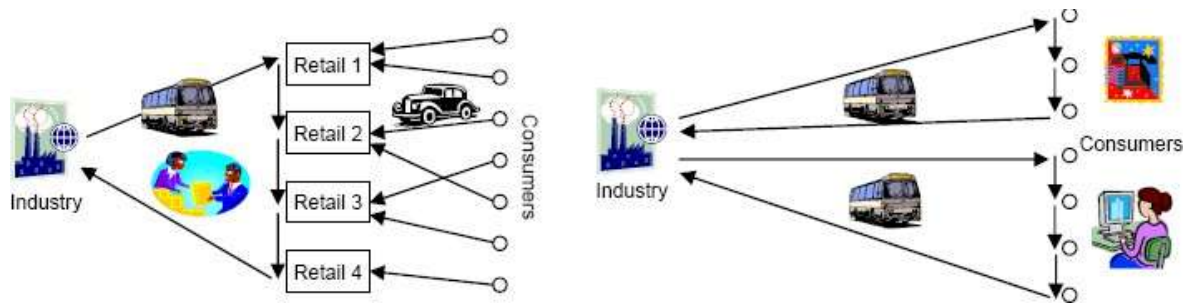
vi. EXPRESS DELIVERY

As the interest for time efficiency and decentralized management production continues to grow, lower inventory costs have led to the Just-In-Time (JIT) delivery principle, which involves the correct distribution of materials at the appropriate time and place during the

production process (Tseng, Yue & Taylor, 2005). Door-to-door service, efficiency, traceability, Just-In-Time (JIT), and growing various delivery demands are the characteristics of this delivery.

vii. E-COMMERCE

E-commerce is the prospect of corporate style. It brings many benefits to companies and consumers, such as expands the market area internationally, using digital technology to replace traditional paper products, thereby improving the capability of the industry, e-commerce will affect transportation systems as a result of increased trips, and it may decline the number of warehouses and inventory costs. Therefore the price can be reduced (Karthikeyan, 2017). Figure 04 and Figure 05 showed the variation of traditional trade transport and e-commerce.



FC 04: Traditional business transport pattern FC 05: e-commerce transport pattern

1. C. LITERATURE REVIEW OF THIRD-PARTY LOGISTICS

i. DEFINITION OF LOGISTICS OUTSOURCING

According to (Aertsen, 1993; Bowersox, 1990; Lieb, 1992; Sink & Langley., 1996) the terms such as "logistics outsourcing," "third-party logistics," "logistics alliance," "contract logistics and allocation" used reciprocally to describe the outsourcing of some or all of the logistics activities (Aertsen, 1993; Bowersox, 1990; Lieb, 1992; Sink & Langley., 1996).

- ✓ (Murphy & Poist, 1998) stated that, 3PL is often associated with providing not just segregated transport or storage functions, but also multiple bundled services (Leahy, Murphy and Poist, 1995).
- ✓ The term "fourth-party logistics" (4PL) is more advanced contractual arrangements, defined as supply chain service providers, relatively than operational services, participate in supply chain coordination of multiple asset-based participants for its customers. (Van Hoek and Chong, 2001)

ii. **COMPONENTS OF LOGISTICS OUTSOURCING**

The logistics outsourcing system consists of inventory management, transportation, storage and material packaging, handling, information processing, demand forecasting, production planning, procurement, facility location, customer service, and other activities.

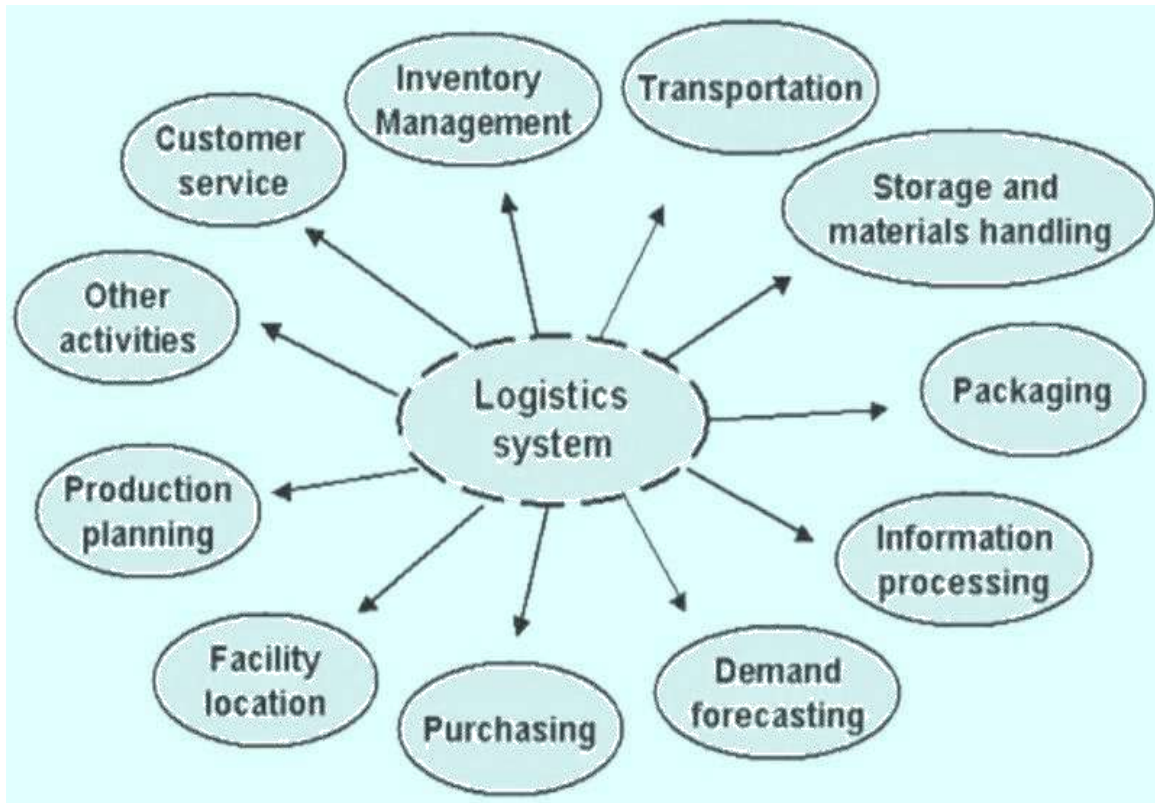


Fig 01: Logistics System

iii. BENEFITS AND RISKS OF OUTSOURCING

Various benefits and risks associated with 3PL divided into strategic, financial, and operational. The most commonly mentioned risks are related to the loss of control of the logistics function and the loss of internal capabilities and client contacts (Ellram, 1990). However, in general, shippers adopt a hybrid approach in logistics and order management internally (Wilding, 2004). According to reports (van Damme, 1996), 3PL users have increased their flexibility in changing market (investment) and demand (quantity flexibility), but the lack of receptivity to consumer needs is also considered an outsourcing issue.

iv. FINDINGS FROM LOGISTICS OUTSOURCING

The review revealed that 3PL research is empirical descriptive and often lacks a theoretical basis. It identified specific knowledge gaps and made recommendations for future research. It advised that the focus should be on more theory-driven, standardized, and qualitative research and believes that the implementation of the necessity of 4PL services (Selviaridis & Spring, 2007).

2. D. CRITICAL ANALYSIS OF DIFFERENT MODE OF LOGISTICS

I. HIGHER ROAD TRANSPORT COST

The worst situation in BD was in 2013, in the face of political turmoil disrupting domestic and international supply chain management, trucking freight rates have increased five-fold over regular prices in the past three weeks in December 2013 (Ovi, 2013). In this newspaper article also stated that On the first Friday of December compared to the freight rate in the third week of November, the fare for trucks traveling from Dhaka to Chittagong was increased from 20,000 takas to 125,000 takas. Commonly, a lorry charges Tk12,000 to Tk 20,000 on the Dhaka-Chittagong route; the fare had gone through the roof because of blockades & hartals. The freight rate on the route had risen to Tk1,25,000 as per Bangladesh Truck and Covered Van Owners' Association.

II. DEVELOPED CONTAINER TERMINALS

The container terminal is a multimodal transport hub in the international supply chain, which plays a vital role in containerization, and it is an intermediary pool group that changes the

mode of transportation. CPA and IWTA located on Buriganga River with capacity 160,000 TEU jointly owned by Dhaka ICT or Pangaon Port and Summit Alliance Terminal with capacity 100,000 TEU located southwest of Dhaka city on the same river which is owned by Summit- Alliance Group.

III. IMPORTANCE OF LOGISTICS SECURITY IN GLOBAL SUPPLY CHAIN

Logistics security is becoming increasingly important in Bangladesh, and the disruption of the logistics chain can have a devastating impact on society and the economy and, therefore, critical to the development of the region. So, in this area, national and regional coordination of different public and private initiatives are essential.

2. E. RMG SECTOR OVERVIEW IN BANGLADESH

Bangladesh's economy was the other rapidly growing economy in 2016 (December) as per IMF, with a 7.11% GDP growth rate, compared with a 6.12% growth rate in 2015. GDP is 28.1%, with the RMG sector contributing the most. Since 2004, Bangladesh's average GDP growth rate has been 6.5%, thanks in large part to its garment exports.

Period	USD (million)	Yon Y Growth (%)
2007	9,350.33	4.67
2008	11,878.92	27.04
2009	11,890.49	0.10
2010	14,854.60	24.93
2011	19,214.47	29.35
2012	19,788.14	2.99
2013	23,500.98	18.76
2014	24,583.96	4.61
2015	26,602.70	8.21
2016	28,668.29	7.76

All in all, the RMG space is growing, and despite a slowdown in the past three years, the government and other stakeholders can take some steps to strengthen it. More investment in any sector will help to reach expected growth continued with healthy and positive reforms. In the upcoming days, more investment behind human capital in this area will be vital. To gain more value, companies must invest in human resources. If it were not for a complete RMG division, some of it would have to transform into a world-class leading performing division.

At the same time, appropriate infrastructure should be established nationwide, with particular emphasis on the livelihoods of RMG factories and their surrounding workers.

2. F. TRANSPORTATION LOGISTICS IN RMG

Many factors affect a successful operation in the RMG sector. Like standard productivity, quality resources supply, effective use of resources, maintaining lead time, etc. Transportation logistics is part of lead time management. Transportation used in delivering finished products, moving raw materials, carrying different accessories, etc. No doubt, without maintaining proper transportation, lead time cannot be managed. Considering end to end situation goods cannot be a move without transportation.

(“Insight Success Business Magazine,”n.d.) describes, without a perfect transportation system, logistics cannot fully utilize its advantages. A good logistics activity transportation system can improve service quality, reduce operating costs, and improve logistics efficiency. Improvement of the transport system requires the joint efforts of the public and private sectors.

2. G.LITERATURE REVIEW OF LEAD TIME

i. THE CONCEPT OF LEAD-TIME

The lead time is the span between the beginning and the end of the process. During the delivery, all necessary activities will perform to meet the needs of the consumer and ultimately bring the product into the hands of the consumer (Elsmar, 2013).For Bangladesh RMG, we learned from interviewees and experts that the delivery time did not mention in the order confirmation. Instead, it implies two dates, such as Order issuance/confirmation date and Ship date. The time interval between these two dates considered to lead time in Bangladesh's RMG business. Chopra (p.317, 2010) and Christopher (p.157, 1998) have incorporated shipping time into the delivery time formula, but Bangladesh RMG did not take this into account. European and American merchants, not Bangladeshi garment manufacturers, considered and addressed this factor.

ii. PURPOSE

The purpose is to analyze the status of lead time management of Bangladesh RMG exports in the current business process. Therefore, the specific goal of the study was to focus on reducing lead times related to business processes and supply chain management. However, the objectives are as follows:

- 1) To analyze the lead time order in the management process, and
- 2) To develop a new business process to minimize the lead time.

iii. REVIEW THE LITERATURE

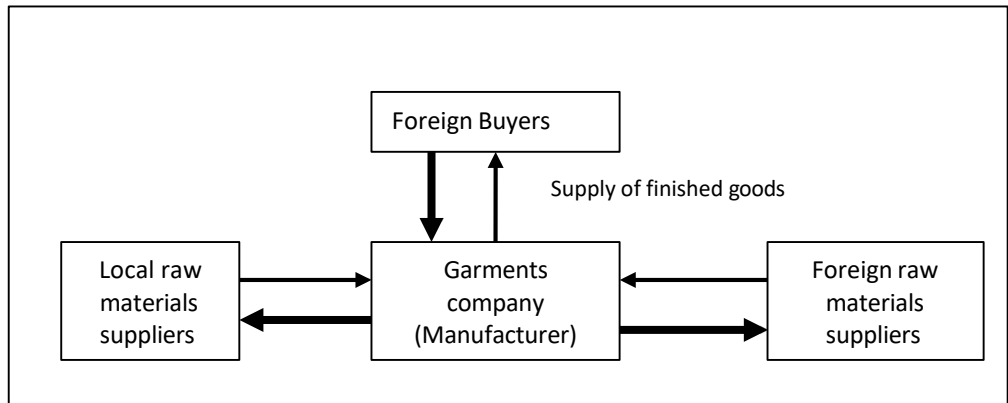
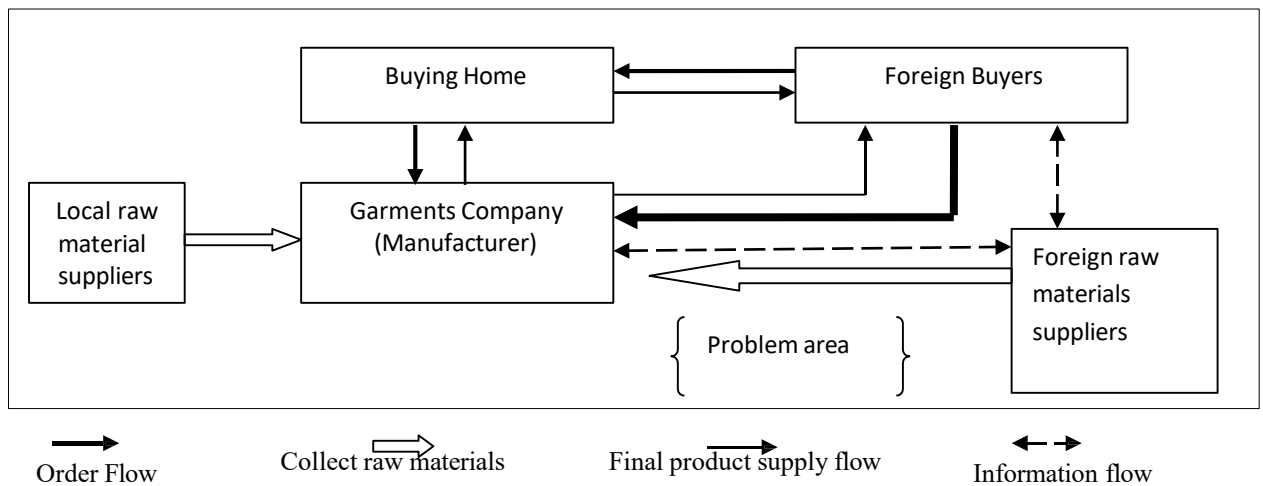
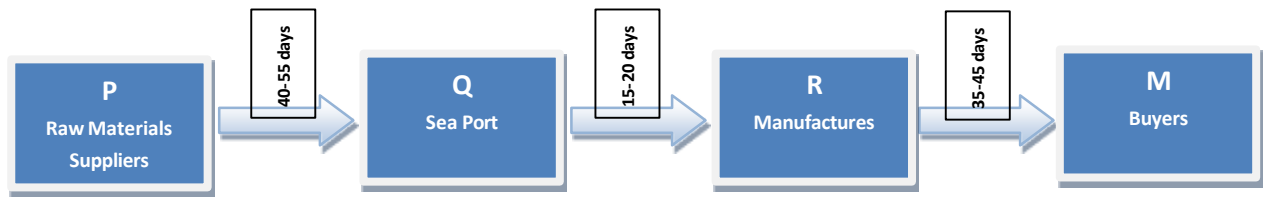


Fig 05: Business structure in Bangladesh RMG industries



FC 06: Business Structure & Raw material collection Process

iv. **PROCEDURE OF ORDER**



FC07: Basic Supply chain of Bangladeshi RMG Industries

v. **FOR BANGLADESH GARMENTS (IN GENERAL):**

Asgari & Hoque, 2013) mentioned the delivery time of Bangladeshi garments, the delivery time is the sum of imported fabric time, manufacturing time, fabric inspection / other processing, garment manufacturing (such as cutting, sewing, washing, finishing, and packing). Carry out a final inspection of the garment and send it to Chittagong Seaport (woven garments) during the buffer time.

Lead time= 25+28+7+20+5+5= 90 days

Lead time = manufacturing time of fabrics+ manufacturing time of garments (knit garments)

vi. **CRITIQUE VIEW OF POINT**

- ✓ The analysis found that fabric manufacturing time, shipping time, unloading time, and shipping time were all included in the order lead time.
- ✓ Insufficient transportation facility (Road condition, schedule unavailability, lack of vehicles maintenance, etc.) cause unusual deal between points of pickup and delivery
- ✓ Import dependency accounts for 50% or more of the trouble of prolonged delivery time, which is the primary factor causing long delivery time in the RMG industry.
- ✓ For long lead times, sample approval is one of the other factors.

Chapter 3

Methodology of the Study

3. METHODOLOGY:

Data collected from primary and secondary sources like the interview, many journals, books, literature.

Data source: The primary and secondary data used to complete this study.

i. PRIMARY DATA

This study will have two parts of the analysis. In part, one SCM of a real company will consider seeing their situation and working structure. Afterward, in the second part, a questioner will be conducted among ten companies to understand their SCM system, the problems they faced and, etc. Again, a real liaison office will consider reviewing the supply chain structure. For this, we have taken several interviews with Motiur Rahman and Ridwanul Haque of the Carrefour GS office.

ii. SECONDARY DATA

Secondary data collected from various journals, brochures, annual reports, newspapers, magazines, publications, books, and other forms of publications as well as websites.

Chapter 4

Analysis and Findings

4.1 INTRODUCTION

This chapter combines data analysis with findings from survey responses. Sort, review, and edit completed questionnaires before processing responses to ensure completeness and consistency. The data is then encoded so that responses can divide into various categories. Descriptive statistics for analyzing quantitative data. Data analysis has performed in SPSS 26, and the output explained in frequency and percentage.

4.2 GENERAL INFORMATION OF THE SURVEYED COMPANIES

In this study, 10 participants of different designations from 10 companies gave their responses by interviews and with a structured questionnaire.

Table 01: Companies took part in this study

SL	Name of Company	Position of Employee
1	Ha Meem Group	Assistant General Manager (AGM)
2	Beximco Ltd	Executive - Admin
3	Square fashion	Manager - Admin
4	Opex Sinha Group	Merchandiser
5	Fakir Group	Sr. Merchandiser
6	DBL Group	Sr. Manager - Admin
7	Epyllion Group	Executive - Logistics
8	Standard Group	Merchandiser
9	Asian Apparels Ltd.	Merchandiser
10	Givensee Group of Industries Ltd	Assistant General Manager (AGM)

Source: Summarized by the author from responses

Table 1 shows the name of companies and the designation of the employees who are taking part in this study. These employees are related to their company's transportation logistics and answered different questions regarding logistics transportation of this study.

Table 02: General Information about the Company

Information about the company's operation	Category	Frequency	Percent (%)
How long has your organization been operating in Bangladesh?	5 – 10 years	1	10
	11 - 20 years	5	50
	Over 20 years	4	40
	Total	10	100
What is the current number of employees in the supply chain/logistics/procurement department?	5-10	1	10
	10-15	1	10
	Above 15	8	80
	Total	10	100
How long has the procurement/supply chain/logistics department been in operation in your organization?	5 years and above	10	100
Is your organization handle transportation by itself or by 3PL?	Self	7	70
	3PL	3	30
	Total	10	100

Source: Summarized by the author from responses

Table 02 shows some basic information of companies about their operation period, number of employees, operation period in logistics and transportation handling of their companies. From the table, we observed that 50% of surveyed companies are doing their operations for 11 to 20 years, whereas 40% are doing for more than 20 years in Bangladesh. Eight companies have more than 15 employees in their supply chain/logistics/procurement department. The procurement/supply chain/logistics department of all companies is in operation for more than five years. 70% of the companies are doing their transportation handling by own, whereas 30% are doing by 3PL.

4.2 TRANSPORTATION LOGISTICS WORK IN THE RMG SECTOR

In this section, respondents are given their opinion on logistic transportation of the RMG sector in road, water & railway transportation.

Table 03: Logistics transportation for RMG sector

Items	Response Category	Frequency	Percent (%)
Logistics transportation is a key fact for RMG development	Not Sure/Neutral	3	30.0
	Agree	6	60.0
	Strongly Agree	1	10.0
	Total	10	100.0
Logistics transport is limited to Road transport	Strongly Disagree	2	20.0
	Disagree	6	60.0
	Not Sure/Neutral	2	20.0
	Total	10	100.0
Water and Railways also develop for efficient use in logistics	Disagree	1	10.0
	Not Sure/Neutral	7	70.0
	Agree	2	20.0
	Total	10	100.0
Road transportation is easy to develop in logistics	Not Sure/Neutral	4	40.0
	Agree	5	50.0
	Strongly Agree	1	10.0
	Total	10	100.0
Railway transportation is easy to develop in logistics	Disagree	4	40.0
	Not Sure/Neutral	6	60.0
	Total	10	100.0
Waterways transportation is easy to develop in logistics	Disagree	5	50.0
	Not Sure/Neutral	5	50.0
	Total	10	100.0
Improving road transportation need to be more focused on comparing Rail and Waterways	Disagree	1	10.0
	Not Sure/Neutral	7	70.0
	Agree	2	20.0
	Total	10	100.0

Source: Summarized by the author from responses

In a formal way, transportation Logistics is an important fact for RMG development. Table 03 depicts that 70% of the surveyed participants think that (60% agree + 10% strongly agree) the logistics transportation is a key fact for RMG development, whereas 30% of respondents are not sure about it. 80% of the surveyed participants doesn't think that logistics transport is limited to road transport. 20% of the surveyed participants agreed that water and railways also need to develop for efficient use of logistics, but most of the respondents (70% of the participants) are not sure about the development of water route and railway transportation. In the development of logistics transportation, 60% of the surveyed participants agreed (50%

agree + 10% strongly agree) that road transportation is easy to develop in comparison to railway transportation and water route transportation development as per respondent's opinion. 20% of the surveyed participants agreed that road transportation improvement needs to more focused rather than water and railways, whereas 30% of respondents are not sure about it.

4.3 PROBLEMS/FACTS ARE FACED FOR EFFECTIVE TRANSPORTATION LOGISTICS SYSTEM

In this section, participants gave their opinion on some facts of effective logistics transportation system regarding maintenance, road width, load capacity, a political issue, and fuel price.

Table 04: Facts of the effective logistics transportation system

Items	Response Category	Frequency	Percent (%)
Proper maintenance is not happening in national highways by which industries around Bangladesh are connected	Disagree	2	20
	Not Sure/Neutral	3	30
	Agree	4	40
	Strongly Agree	1	10
	Total	10	100
Road width is not enough for carrying the present type of transports	Disagree	3	30
	Not Sure/Neutral	6	60
	Agree	1	10
	Total	10	100
Load-bearing capacity is not maintaining properly in highways	Disagree	2	20
	Not Sure/Neutral	4	40
	Agree	4	40
	Total	10	100
Political violence is affecting the smooth transportation system	Not Sure/Neutral	6	60
	Agree	4	40
	Total	10	100
The high price of fuel is affecting the cost of transportation	Disagree	3	30
	Not Sure/Neutral	6	60
	Agree	1	10
	Total	10	100
Transportation is a non-core function for any industry like RMG	Not Sure/Neutral	4	40
	Agree	5	50
	Strongly Agree	1	10
	Total	10	100

Source: Summarized by the author from responses

From table 04, we observed that 50% of the surveyed participants (40% agree + 10% strongly agree) think that roads are not properly maintained in national highways near industries that are connected. Most of the respondents have no idea about road width for carrying logistics transportation, but 30% of the respondents think that the current road width is enough for carrying logistics. Present highways load-bearing capacity is not enough to carry heavy transport properly and 40% of respondents agreed that it's not properly maintained. Presently only 40% of people believe that political violence is affecting the smooth transportation system. 60% of the respondents have no idea about high fuel price affecting or not to the transportation cost, but 10% agreed that because the cost of fuel rising, transportation cost is also rising. As 60% respondents (50% agree + 10% strongly agree) think that transportation is a non-core function of RMG.

4.4 SOLUTIONS (WITH OPTIONS) FOR THE OBSTACLES OF THE EFFECTIVE TRANSPORTATION LOGISTICS SYSTEM

From table 02, we already observed that currently, 70% of the companies are doing their transportation handling by own, whereas 30% are doing by 3PL.

Table 05: Responses regarding 3PL for logistics transportation

Items	Response Category	Frequency	Percent (%)
3PL can be used for maintaining the proper supply chain in factories	Disagree	1	10
	Not Sure/Neutral	5	50
	Agree	4	40
	Total	10	100
Developing 3PL and train them as per organizational policy is important	Disagree	1	10
	Not Sure/Neutral	6	60
	Agree	3	30
	Total	10	100
Condition of 3PL vehicles should be properly monitored	Not Sure/Neutral	5	50
	Agree	4	40
	Strongly Agree	1	10
	Total	10	100
Political stability, enter org's mutual agreements will be favorable for smooth transportation in logistics RMG	Not Sure/Neutral	7	70
	Agree	3	30
	Total	10	100
Govt. should regularly monitor the situation of infrastructure for smooth growth.	Not Sure/Neutral	5	50
	Agree	3	30
	Strongly Agree	2	20
	Total	10	100

Source: Summarized by the author from responses

Table 05 depicts that 40% of the respondents gave their consent regarding 3PL that it can use for maintaining proper supply chain in factories, and 50% of respondents agreed that Gov. should monitor infrastructure development for RMG growth and Transportation Logistics industry. Developing 3PL and train them as per organizational policy is not essential because 60% of the respondents are not sure about it. 50% of respondents think that the condition of 3PL vehicles needs well monitored. Political stability may not be favorable for smooth transportation in logistics RMG.

4.5 FINDINGS

Considering the current situation of Bangladesh, improving land logistics will be a vital point for RMG operation improvement. In many parts of Bangladesh, thousands of manufacturing units are running and directly related to export. As Bangladesh has only one major seaport, many factories in the south part are depending on road transport for getting their materials in and deliver their goods for shipment at CTG. Why road transportation is focused, because

- 1) Possible short time maintenance or repair
- 2) Less investment rater water and rail
- 3) Multipurpose use (Like if we can establish a 24 hours shuttle road service from Dhaka to CTG, we can also use this way as emergency service)
- 4) South part has of Bangladesh fewer waterways, and waterway maintenance is expensive than road maintenance)

Most of the factories use third party logistics support because of,

- a) Non-core function
- b) Schedule confirmation
- c) Reduce overhead cost
Limited use of resources

4.6 SUMMARY

Transportation plays a vital role in Bangladesh's RMG sector. All companies' procurement/supply chain/logistics departments have been in operation for more than five years. 70% of companies handle transportation themselves, while 30% of companies are 3PL.

70% of respondents believe that logistics is a vital component in the development of RMG. Transportation logistics are limited to road transport. Most respondents did not know the width of roads for transportation and logistics, but 30% of the respondents believed that the current road width was sufficient for logistics transportation.

Chapter 5
Recommendations, Limitations
& Conclusions

A. RECOMMENDATIONS

From my research, I would like to give some recommendation in order to minimize the obstacles of transportation in Logistics in our RMG sector in Bangladesh

Government role: To maintain industry competitiveness, the government must take the lead in assisting the logistics industry. For example, the idea of an urban logistics freight village provides an environment for improving logistics efficiency and reducing operating costs. However, this involves significant investments and involves laws and national policies. Without government leadership and support, the plan is difficult to achieve.

Growth of international goods transport: The development of global cargo was brought about by a few elements. First, the vigorous development of e-commerce has promoted the development of international business activities. Second, changing production strategies requires international cooperation, such as importing semi-finished products from countries with cheaper human resources to countries with higher technological content to assemble the final product.

Improvement of services: With fierce competition in the global market, providing quality customer service has become a necessary condition for business operations. Service quality is the fundamental factor influencing purchaser conduct among enterprises. Service frameworks currently include a few created advances, for example, effective consumer reaction (ECR) and quick reaction (QR). Sooner rather than later, progressively innovations will be applied to offer better types of assistance to clients.

Shorter product life cycle: With current patterns, product design is changing as time passes, so item life cycles are getting shorter and shorter, particularly in the software engineering field. To adapt with these impacts, logistics frameworks must improve their productivity and unwavering quality of cargo delivery. Something else, unseemly coordinations frameworks will prevent the seriousness of new items and business benefits.

Improvement of logistics facilities: The improvement and progress of coordinations depend on an assortment of innovations and complete speculations. Innovative offices and frameworks, e.g., ITS, could carry more prospects and preferences to coordinations.

Logistics Center: The advancement of coordinations focuses is useful for industry advancement and the improvement of the national financial framework.

B. LIMITATION OF THE STUDY:

Limitations that will take place while preparing this report include:

- The conservative attitude of the responder can squeeze the scope of the study.
- Many current data and documents may not be available, which may have made the study more informative. Therefore, the main limitation of the survey is the lack of information.
- It's mandatory to complete this study within a short period of time, which may not be sufficient to get all data that will assist in making this report successful.
 - All publicly available information may not be accurate.
 - Some desired information could not be collected due to the confidentiality of the business.

C. CONCLUSION

The Readymade Garment Industry is a vast and primary business segment in Bangladesh's general economy. One such driver is the arrangement of transport and coordination administrations and the degree to which these administrations guarantee that products are delivered from an industrial facility, stockroom, or port in the nation of the source to goal showcases all through the world in a convenient and savvy way. The significance of transport and coordination administrations has expanded drastically because of the inexorably perplexing requests of the worldwide economy. This expanding unpredictability originates from coordinated worldwide assembling and creation organizes, an expanding requirement for in the nick of time coordination's, developing the use of multi-purpose transport including at least one method of transportation (street, air, sea, or rail) and new security contemplations. As these requests become increasingly perplexing, so do the procedures required to finish exchange exchanges that include numerous means, a heap of players, and a scope of legal and administrative systems. With costs included at each progression of the procedure, the quality, cost, and productivity of transport and coordination's benefit significantly influences the estimation of a decent at its last goal and, in this way, the producer's capacity to be universally severe.

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APPENDIX

QUESTIONNAIRE

This questionnaire has been designed for academic use only. It aims to establish impact of transportation in Logistics in RMG sector in Bangladesh .Please note that the data that you provide will be handled with utmost confidentiality and privacy. Thank you for your consideration.

Name:

Designation/Relation:

Note: Please put tick mark on the cell between number 1 to 4 on the right side

Section A: General Information

Answer the following questions by ticking alongside your choice.

1. What is your position in this organization?

a) Supply Chain Manager/Logistics Manager/Procurement Manager

b) Others (please specify) _____

2. How long has your organization been in operation in Bangladesh?

I) Below 5 years

II) 5 – 10 years

III) 11 - 20 years

IV) Over 20 years

3. What is the current number of employees in supply chain/logistics/procurement department?

I) 2-5

II) 5-10

III) 10-15

IV) Above 15

4. How long has the procurement/supply chain/logistics department been in operation in your organization?

I) 0-1

II) 1-2

III) 2-5

IV) 5-above

5. Is your organization handle transportation by itself or by 3PL?

I) Yes

II) No

III) Partial

6. Name of Organization.....

Section B

On a Scale of 1-5 where 5= Strongly Agree, 4 = Agree, 3 = Not Sure, 2 = Disagree and 1 = strongly Disagree, please indicate your level of agreement with the following statements relating to the impact of Logistics performance in RMG sector

Sl no.	Statement	Strongly Agree	Agree	Not Sure	Disagree	Strongly Disagree
1	Transportation Logistics is a key fact for RMG development					
2	Transportation Logistics are limited to Road transport					
3	Water and Rail ways also develop for efficient use in logistics					
4	Road transportation is easy to develop in logistics					
5	Railway transportation is easy to develop in logistics					
6	Water ways transportation is easy to develop in logistics					
7	Improving road transportation need to be more focused comparing Rail and Water ways					
8	Proper maintenance is not happening in national highways by which industries around the Bangladesh are connected					
9	Road width is not enough for carrying present type of transports					
10	Load bearing capacity is not maintaining properly in highways					

11	Political violence is affecting smooth transportation system					
12	High price of fuel is affecting cost of transportation					
13	Transportation is a non-core function for any industry like RMG					
14	3PL can be used for maintaining proper supply chain in factories					
15	Developing 3PL and train them as per organizational policy is important					
16	Condition of 3PL vehicles should be properly monitor					
17	Political stability, enter org's mutual agreements will be favorable for smooth transportation in logistics RMG					
18	Govt. should regularly monitor situation of infrastructure for smooth growth.					