

**YANGON UNIVERSITY OF ECONOMICS
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**A STUDY ON SEA IMPORT CHALLENGES OF
LOGISTICS SERVICE PROVIDERS IN YANGON REGION**

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**YANGON UNIVERSITY OF ECONOMICS DEPARTMENT OF
APPLIED ECONOMICS MASTER OF PUBLIC ADMINISTRATION
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**A STUDY ON SEA IMPORT CHALLENGES OF
LOGISTICS SERVICE PROVIDERS IN YANGON REGION**

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Public Administration (MPA)

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This is to certify that this thesis entitled “**A Study on Sea Import Challenges of Logistics Service Providers in Yangon Region**”, submitted in partial fulfilment towards the requirements for the degree of Executive Master of Public Administration (EMPA) has been accepted by the Board of Examiners.

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ABSTRACT

The study primarily concentrates on the challenges faced by logistics service providers in the Yangon Region with respect to maritime imports. Structured questions are employed to acquire primary data from 260 logistics service providers in Yangon, out of a total of 743 logistics service providers. The investigation reveals that there are infrastructural bottlenecks, including physical transportation restrictions and a shortage of container vehicles for imports. Furthermore, the sea import logistics industry in Yangon undergoes an absence of an efficient technical system. Government policies and regulations are inadequate to sustain the logistics sector, according to the investigation. Additionally, there is a scarcity of skilled labor in the logistics industry, which presents obstacles to the recruitment and retention of qualified personnel. Additionally, the process of customs clearance is not a straightforward one when it comes to removing the cargo from the port. In order to address the absence of logistics integration among stakeholders such as shipping lines, customs, government offices, and others, it is imperative to implement comprehensive system integration solutions.

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ABBREVIATIONS

3PL	- Third party Logistic
ASEAN	- Association of Southeast Asian Nations
AWPT	- Asia World Port Terminal
BSW	- Bo Aung Kyaw Street Wharf
CBM	- Central Bank of Myanmar
CEPT	- Common Effective Preferential Tariff
CEPT	- Common Effective Preferential Tariff
CFS	- Container Freight Station
CIF	- Cost, insurance, and freight
DG	- Decomposed Granite
DICA	- Directorate of Investment and Company Administration
DOT	- Department of Trade
DWT	- Deadweight tonnage
EDI	- Electronic Data Interchange
EDI	- Electronic Data Interchange
ERP	- Enterprise Resource Planning
ETA	- Estimated Time Arrival
FCL	- Full-Container Load
FY	- Financial Year
GPS	- Global Positioning System
HPT	- Htedan Port Terminal
ICDs	- Inland Container Depots
ICT	- Information and Communication Technologies
IWT	- Inland Waterway Transport

JICA	- Japan International Cooperation Agency
LCL	- Less-Than-Container Load
LOA	- Length Overall
LPI	- Logistics Performance Index
LSPs	- Logistics Service Providers
MACCS	- Myanmar Automated Cargo Clearance System
MCIS	- Myanmar Customs Intelligence System
MIC	- Myanmar Investment Commission
MITT	- Myanmar International Terminals Thilawa
MOC	- Ministry of Commerce
MOEE	- Ministry of Electricity and Energy
MOTC	- Ministry of Transport and Communications
MR	- Myanmar Rail
ODA	- Official Development Assistance
RFID	- Radio Frequency Identification
SOP	- Standard Operating Procedure
SPW	- Sule Pagoda Wharf
TEU	- Twenty-foot Equivalent Unit

CHAPTER I

INTRODUCTION

1.1 Rationale of the Study

It is clear that during the past 20 years, the logistics role has developed and is still evolving. The growth of globalization strategies adopted by businesses and the increase of international trade have led to the increasing significance of the logistics sector. It is feasible to move commodities across large distances swiftly and effectively thanks to shipping and logistics. Businesses who operate internationally and need to transfer goods from one nation to another depend on it. Additionally contributing to the cost of goods being lower and more accessible to consumers is efficient transportation. It is an essential role for companies of all sizes since it may boost productivity, cut expenses, and raise client happiness. The foundation of contemporary trade, logistics service providers ease the flow of commodities from producers to consumers.

Even though the sector is vital to the world economy, it faces numerous difficulties that may have an adverse effect on its productivity, earnings, and level of customer satisfaction. The logistics sector significantly boosts the macroeconomics of the country by generating jobs, national income, and foreign investment inflow. In addition, the logistics sector plays a significant role in boosting other industries' competitiveness and reviving them. These days, the logistics sector supports every industry. Transportation is a crucial component of logistics operations. Therefore, a major factor in the integration of countries into the global economy during the globalization process was the expansion of transportation infrastructure.

The potential for expansion in the Asia-Pacific area is really encouraging. The demand for more effective and efficient logistics services has increased as a result of the recent spectacular rise of export trade in nations like Singapore, Thailand, Malaysia, and Indonesia (Faisal, 2010). The infrastructure and development of Myanmar, along with increased trade volumes and favorable government regulations, have all contributed to the market's notable expansion in recent years for freight and logistics. Unfortunately, the majority of Myanmar's logistical infrastructure was built during the British colonial era and is in desperate need of modernization. Put differently, there is an expectation that future investment in Myanmar's logistics infrastructure would increase significantly. There are

both domestic and foreign participants in the industry, which creates a competitive environment (JICA, 2019).

Providers of logistics services provide complete maritime freight forwarding and logistics solutions. They serve companies of all sizes by offering a comprehensive variety of shipping and logistics services. By obtaining import licenses and permits for importers, logistics service providers in Myanmar offer a comprehensive range of high-quality services and logistical solutions as a one-stop shop. Furthermore, they provide both local and international ocean freight services as well as customs clearance for shipments that are either full-container load (FCL) or less-than-container load (LCL). Transportation and Warehousing are provided by certain logistics service companies. They offer door-to-door service, which is a shipping arrangement in which the entire package of goods is transported from the sender to the recipient (Ansari, & Modarress, 2010). These days, it can be difficult for logistics service providers to pick up cargo from sea ports in the desired condition and on schedule. The demand for ocean freight appears to be about average annually, but the main issues at the moment are equipment shortages and space restrictions. There are a lot of uncleared containers at ports. Additionally, feeder operators are less likely to call in Yangon, which keeps rates high and gives shipping line contract holders priority. Logistics problems arose from a lack of workers at shipping ports, which impeded container transportation. Furthermore, this results in delays in ship unloading and eventually ship congestion, which puts further strain on road freight or cross-border transactions as a substitute.

Yangon, the most populous city in Myanmar and its commercial and industrial center, is home to the country's transportation, cultural, and economic centers. Because it influences a nation's trade competitiveness, port and terminal performance is significant. More than 90% of maritime export and import seaborne traffic is handled by Yangon Port, a major port in Myanmar (Myo Than, 2013). International trade's primary functions are maritime transportation and logistics infrastructure. One of the most significant means of transportation for both imports and exports into Myanmar was water transportation. Addressing the difficulties and barriers associated with maritime logistics is essential for improving Myanmar's economy and international trade. Myanmar's logistic service providers provide comprehensive solutions for their clients' logistical requirements. To get the cargos from ports quickly, they must overcome certain obstacles. As a result, importers are subject to additional fees, and market prices for consumers have gone up. It's critical to learn about the difficulties logistic service providers have in delivering cargo to ports. As a

result, this study looks at the difficulties that logistics service providers in the maritime import sector encounter.

1.2 Objective of the Study

The objective of the study is to examine sea import challenges of logistics service providers in Yangon region.

1.3 Method of Study

Both quantitative and descriptive research methodologies are employed. This study utilizes both primary and secondary data. Primary data were obtained by simple random sampling from 260 logistics service companies registered with DICA. Secondary data sources are obtained from prior research articles, official websites, government portals, DICA, JICA, among others.

1.4 Scope and Limitation of Study

The study exclusively examines five concerns in Yangon ports: physical constraints, inadequate technical systems, insufficient government assistance policies, a scarcity of competent staff, and customs clearance issues. The research exclusively examines the marine import problems faced by logistics service providers in the Yangon region. The field study period spanned from May 1, 2024, to June 30, 2024.

1.5 Organization of the Study

This research includes a total of five distinct chapters. The first chapter provides an introduction to the study, which contains the rationale for the study, the objectives of the investigation, the scope and technique of the study, as well as the arrangement of the paper. The second chapter provides a survey of the relevant literature, as well as related hypotheses and past research. The third chapter provides a description of the logistics service industry in Yangon that deals with maritime import transactions. Presented in the fourth chapter are the findings of the analysis. Chapter five, which is the final chapter, presents the findings, ideas, and recommendations.

CHAPTER II

LITERATURE REVIEW

This chapter delineates the theoretical framework of this investigation. Initially, it delineates the Definition of Logistics Service Provider, the Role of Logistics Service Providers within the Logistics Industry, the Challenges faced by Logistics Service Providers, and prior research findings.

2.1 Role of Logistics Service Providers in Logistics Industry

According to Delfmann et al. (2002), the term "Logistics Service Providers" (LSPs) refers to businesses that carry out logistical tasks on behalf of other individuals or organizations. According to Huo et al. (2008), logistics service providers (LSPs) relate to the services that are provided between a shipper and a third party. These services include the provision of basic services as well as more customized offers, span a wide range of service functions, and are defined by a long-term relationship that is more mutually beneficial.

According to Persson and Virum (2001), companies that provide logistics services can be strategically classified as third-party logistics operators, logistics integrators, or logistics agents based on the physical assets that they have available to them. According to Tezuka (2011), there are three characteristics of service providers that are highlighted. These qualities include integrated, contract, and consulting service practitioners.

According to Kumar et al. (2012), the role of Logistics Service Providers (LSPs) is extremely important in ensuring that the flow of information and materials is uninterrupted in both the upstream and downstream stages of the supply chain structure. From the point of origin to the point of delivery to the final customers, logistics service providers are responsible for handling all transportation requirements. In general, Myanmar firms outsource their logistical tasks in order to cut costs, concentrate more on their core strengths, improve service quality, and save time through the process.

Providing logistics service providers, also known as LSPs, assists businesses in managing their supply chains in a manner that guarantees the most favorable conclusion possible. Transportation, warehousing, and production management are some of the services that these firms are responsible for supplying with their services. Additionally, it is their duty to ensure that the items get at their destination in a secure manner, on time, and

at a cost that is affordable. When it comes to being able to compete in today's global economy, this is absolutely necessary for businesses. It should come as no surprise that the growth of logistics services has been significantly accelerating over the course of the past several years. According to Sahay and Mohan (2006), this consequence has resulted in the emergence of a wide variety of LSPs across the sector.

There is a strong correlation between the effectiveness of a business's Supply Chain Management and the success of the organization. Acquiring, operations, distribution, and integration are all components of supply chain management. Managing various vendors and coordinating their activities is becoming increasingly difficult as supply chains get more complicated. This makes it easier for redundancy and inefficiency to surface.

Third-party logistics (3PL) suppliers are able to offer a comprehensive solution by providing a one-stop shop for all of your logistics needs. 3PLs offer importers the in-depth expertise and experience in logistics that they require in order to become more efficient and leaner so that they can concentrate on their core strengths.

The process of logistics entails delivering the appropriate product in the appropriate condition at the appropriate time. Logistics is the component of supply chain management that enables the storage and movement of goods in an effective and efficient manner, beginning at the point of origin of raw materials and continuing through the manufacturing cycle until they reach the point of consumption. According to Kotzab et al. (2005), third-party logistics providers (also known as 3PLs) assist in guiding shipments from one port to their final destination by addressing all of the customs and regulatory procedures in a smooth manner.

Logistic service providers assist both large and small businesses in overcoming a variety of challenges in supply chain management. These challenges include minimizing costs, ensuring efficient inventory management, ensuring speed to market, minimizing wastage, minimizing touch points, removing unnecessary trade barriers, identifying essential transportation, and ensuring proper documentation and insurance. A competent logistics service provider would act as a partner rather than only as a vendor in order to assist individuals and businesses in improving the effectiveness of their supply chain management.

2.2 Challenges of Logistics Service Providers

There is a need to identify and analyze the challenges faced by logistics service providers in delivering desired quality to the end customers. Based on literature review and experts' opinions, various challenges are identified and discussed in detail below.

2.2.1 Infrastructural Bottlenecks

According to Subramanian and Arnold (2001), the term "logistics infrastructure" refers to the physical and digital systems, facilities, networks, and services that facilitate the effective movement, storage, and distribution of commodities, materials, and information along the supply chain. In order to guarantee that there is a continuous flow of products, it performs an essential role. There is a growing consensus that the infrastructure of logistics plays a crucial role in facilitating economic development and urbanization. There are a number of severe impediments in the infrastructure, including the poor quality of roads, poor connectivity, insufficient resources at ports, excessive toll rates, corruption on highways and in the hinterlands, and inadequate air and seaport capacity (Sahay & Mohan, 2006).

Transportation infrastructure and communication infrastructure are both included in the idea of logistics infrastructure. It would appear that the poor quality of ports, airports, roads, railroads, warehousing, and information and communication technologies (ICTs) is a constraint on the performance of logistics in developing countries. Using measurements that take into account a variety of different variables, such as the amount of cargo, the number of container TEUs, and the number of vessel calls, it is possible to determine the throughput of a port. Port capacity is a measurement of the maximum throughput that a port and its terminals are able to handle over a specific time period. This potential throughput can be defined in tons, TEU, or other units, according to the World Bank (2010). According to De Langen et al. (2007), the indicators that are easier to obtain on a global scale are the size of the port infrastructure and the volume of traffic. There are a variety of helpful indicators (Itoh et al., 2003) that go beyond the natural circumstances of the site alone. These indicators include the maximum water depth at port terminals, the depth of the navigation channel, and the number of twenty-foot equivalent units (TEUs) per gantry berth. Additional indications that provide a description of the available handling facilities in ports include the surface area of storage spaces and warehouses, the number of reefer plugs (refrigerated containers), and the counting of handling facilities such as cranes, straddle carriers, and other similar pieces of equipment (Tongzon, 2004).

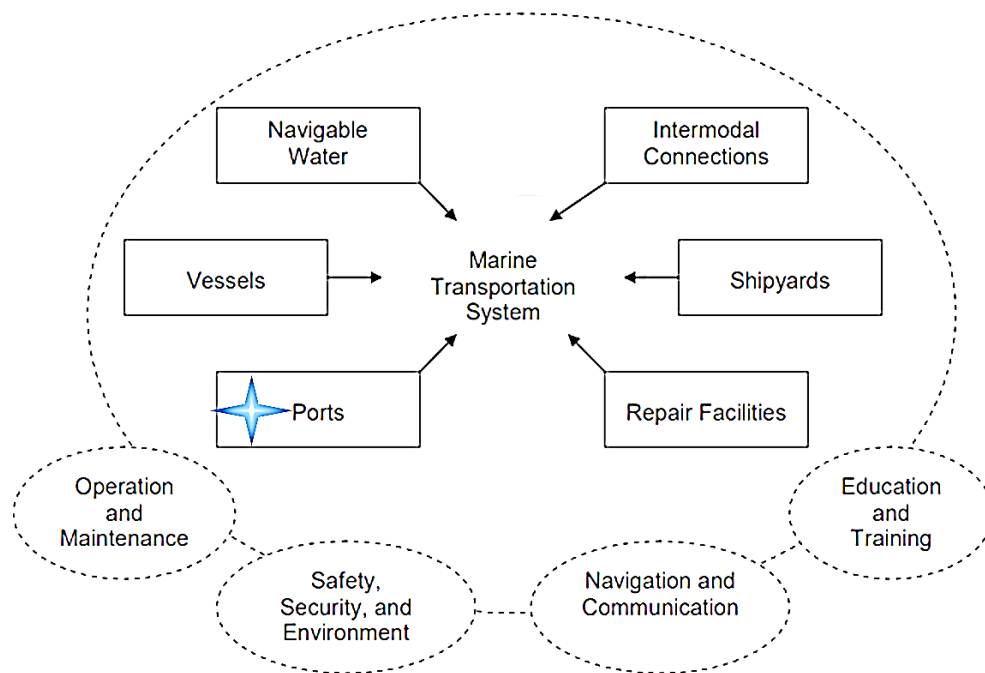
Problems with the infrastructure can also result in slowdowns and delays, as ports may have difficulty processing and servicing a high number of inbound goods and freight fleets. It is necessary to develop and maintain the infrastructure in order to guarantee that the complete supply chain will function at its highest possible level. The infrastructure's physical components include:

- Transportation infrastructure (ports, highways, airports, etc.)
- Storage infrastructure (warehouses, distribution centers, etc.)
- Communication infrastructure (EDI, communication protocols, etc.)

It is important to note that the construction and maintenance of supply chain infrastructure is not without its share of difficulties, despite the fact that it offers numerous advantages. The expense of constructing new infrastructure and also updating existing infrastructure is one of the key problems. It is necessary for governments, private corporations, and other stakeholders to make considerable investments in order to carry out the development of infrastructure because the amount of money required is enormous. The building of infrastructure frequently involves environmental and regulatory challenges that are difficult to understand, which adds to the overall cost. Consequently, prior to investing millions of dollars in the construction or expansion of port infrastructure, it is essential to have a comprehensive understanding of the extent to which ports have an impact on the economy of the nation or the region (Grossmann, 2008).

Figure 2.1 illustrates the primary physical components of the marine transportation system, which are as follows: (1) navigable waters; (2) vessels (both publicly and privately owned); (3) ports (both harbor and land-side facilities); (4) intermodal connections (highway and railway); (5) shipyards; and (6) maintenance facilities. They argue that, in order for this physical infrastructure to work well, it must fulfill a number of essential purposes, such as (a) operation, management, and maintenance; (b) safety, security, and the environment; (c) navigation and communication; and (d) education and training (Easa et al., 2006).

Figure (2.1) Marine Transportation System



Source: Easa et al., 2006

One of the factors that determines whether or not a nation is able to provide a wide range of logistics services is the quality of its physical infrastructure, which includes things like roads, rails, and ports. Limao and Venables (2001) found that the physical infrastructure of a country is a significant factor in determining the cost of transportation, which is a component of logistics performance. This is especially true for nations that are landlocked. Warehouse and transportation systems that are inadequate, as well as clearance times that are unpredictable, cause delays for companies that deal with logistics. According to Haveman et al. (2001), the company might be required to make adjustments to its organizational structures and strategic plans in order to accommodate any changes that may occur in the regulatory environment.

There are bottlenecks in the infrastructure, which is one of the most serious difficulties that the container shipping sector is currently facing. Ports have experienced congestion and delays, increased turnaround times, and additional costs as a result of inadequate infrastructure as a result of global trade, which has put an enormous demand on the current transportation networks and port facilities. According to Milner et al. (2005), addressing bottlenecks of this nature frequently necessitates making substantial expenditures in the expansion or modernization of transportation networks and ports in order to meet the increasingly demanding requirements of the shipping sector.

2.2.2 Lack of Efficient Technical System

One of the most important advantages is an increase in productivity. With the help of technology, businesses are able to automate manual procedures, cut down on errors, and optimize operations, which ultimately results in supply chain processes that are both more efficient and more streamlined. GPS technology, as well as tracking and tracing of shipments and trucks, are examples of modern information technology capabilities that are now accessible. However, according to Luisa et al. (2013), only about two percent of logistics service providers (LSPs) really implement these methods. An example of this would be the most popular usage of the five technology-related phrases, which include digitalization, Internet of Things (RFID), GPS (Geo-fencing-based transportation monitoring), big data, and dynamic warehousing (warehouse tracking system) with resilience (Vimal et al., 2022).

It is possible to define productive efficiency, also known as overall economic efficiency, as the capacity of a production organization to generate a well-defined output at the lowest possible cost. The technical efficiency and the allocative efficiency are the two components that make up this one. According to Le and Nguyen's 2020 research, the term "technical efficiency" describes the capacity of a producer to either maximize the output for the inputs that are available (in the case of output orientation) or reduce the inputs that are required to generate a given quantity of output (in the case of input orientation).

The majority of the technical efficiency concerns that arise inside an individual transport and logistics provider are those that are internal to the firm itself. When it comes to door-to-door transport and logistics, however, where there are multiple service providers engaged, there is not just technological efficiency inside the service providers themselves, but there is also technical efficiency between service providers. Furthermore, there is no assurance that a supply chain that includes a shipping line, ports of departure and ports of destination is efficient if each of these components is technically efficient but functions independently from the other. In light of the fact that the supply chain relies on the participation of more than one channel member, it is necessary for members of the same supply chain to coordinate their efforts in order to achieve overall supply chain efficiency. According to Alam et al. (2014), the integration of logistics is the most important factor in determining the overall performance of the supply chain. This performance may be enhanced by ensuring that information is successfully exchanged.

The digitization of the maritime industry faces a number of significant obstacles, one of the most critical of which is a lack of updated technology. According to Ali and

Odularu's research from 2020, the maritime industry's continuous reliance on antiquated technologies has resulted in a lack of effective national revenue mobilization and several infrastructure issues in the country's seaports. According to Faith (2019), the marine industry may have experienced a decrease in its capacity to drive national sustainable development as a result of a lack of acceptance of updated technology among its players. In addition to providing maritime monitoring authorities with an efficient method of administering taxes and other financial operations, the adoption of information and communication technology (ICT) will make it easier for interconnected participants in the maritime industry to communicate with one another. According to Wiafe et al. (2019), the measures include the utilization and implementation of contemporary information and communication technologies (ICT) in the process of trade formalities. These technologies include the provision of internet connectivity at border crossings, the automation of customs procedures, and the establishment of fully functional electronic single window facilities.

There are a number of issues and challenges that the industry faces, including insecurity, inadequate infrastructure, bureaucracy, weak laws, corrupt practices, inadequate capital for investment and maintenance of ships, poor incentives for investors, a lack of indigenous carrier vessels, sea unworthiness of such indigenous vessels where they are available, and poorly integrated water transport systems (Chidi et al., 2020). Acceptance of technology holds the potential to address these issues and challenges simultaneously. The blockchain technology, which is a decentralized, shared, encrypted repository database, makes maritime logistics easier. It does this by providing shipping companies, port operators, freight forwarders, shipping agencies, and other maritime shipping supply chain operators with real-time tracking of the status of their cargo. This enhances visibility throughout the global supply chain and reduces the amount of time, costs, and risks associated with customs clearance. According to Yang (2019).

The aggregate logistical costs, the quality level of the logistics service, the overall performance of the business system, the total duration of the logistic processes in the system, and the quality of logistics operations and processes (the level of logistics services) are the key performance indicators of any logistics system. These indicators are also known as the key performance indicators. It is possible to evaluate the technical system at ports in terms of sensors that monitor many elements of their operations, including the movement of cargo, the flow of traffic, the conditions of the environment, and the safety of the environment. In order to improve the efficiency of operations, these sensors are able to

deliver data in real time. In particular, the evaluation indicators of the port systems include the implementation of developing information technologies, such as the automation of port production dispatching, the Internet of Things and cloud computing, as well as the capacities to respond to emergency situations. Within the context of the port supply chain, the evaluation indicators of the port technologies include port integration and facilitation, as well as the efficiency of customs clearance and the pooling of financial service resources (Tyapuhin (2007)).

2.2.3 Lack of Government Support Policies

An authoritative rule that has been established in order to control the manner in which things are to be done is referred to as a regulation (Howard, 2020). Depending on the country, regulations can be rather different (Dechezlepretre & Sato, 2014). Companies in the logistics industry are required to comply with legislation from each country. Changing behavior in order to accomplish a desired outcome that would offer improvements in problematic conditions in the environment is the primary objective of government regulation, according to the Organization for Economic Co-operation and Development (2010).

The policies of the government are absolutely necessary for the revolutionization of managed logistics services. Policies and rules enacted by the government have a significant impact on the transportation and logistics industry. The government is responsible for putting in place regulations that govern the movement of cargo into and out of the country. Specifically, this encompasses customs legislation, policies for import and export, as well as trade agreements. If a change in trade policy is unexpected, businesses and consumers will not be able to alter their behavior prior to the adoption of the policy. However, changes in trade policy and agreements are frequently communicated in advance. This allows businesses and consumers to have the opportunity to adapt their behavior in preparation for the policy change that is being revealed. Additionally, it is anticipated that trade reforms and agreements will lessen the amount of ambiguity regarding the environment in which trade takes place. It is possible that an agreement that results in very little adjustments to the levels of trade restrictions but is associated with significant reductions in the degree of uncertainty regarding trade policy could, in principle, have significant effects on trade flows and other outcomes. According to Luthra et al. (2011), inferences regarding the effects of trade policy must therefore take into account behavioral responses that are the result of anticipation or ambiguity over new trade policy changes.

The implementation of government rules or policies might result in increased costs, which can put the companies' ability to continue operating in jeopardy. The final consumers are frequently the ones who end up paying for these expenses (Taylor et al., 2005). According to Hollweg and Wong (2009), these government restrictions have an impact on operational performance in different ways, including price, dependability, quality, and time. When it comes to the effective operation of logistics companies, the presence of government rules or policies may provide obstacles. According to Hollweg (2009), factors that may contribute to these issues include trade barriers, exchange rates, and congestion in ports. All businesses are required to comply with all of the regulations and legislation that have been established by the government, in addition to the requirements that have been laid forth by the customers (Cook et al., 1983).

There are a number of different issues that may have an effect on logistics companies. These challenges may take the shape of import rules, rivals, and price changes, all of which create obstacles in the way of the operations of the supply chain (Prater, 2005). According to Siringoringo et al. (2009), one of the obstacles that businesses confront is the additional paperwork it imposes on both domestic and international governments in order to facilitate commerce.

Therefore, it is necessary for nations to formulate their own rules in order to lessen or eliminate any restrictions that may be causing a barrier. By reducing their restrictive measures to minimal levels, countries are required to establish internal policies that alleviate or eliminate any maritime trade barriers that may be operating against them and causing harm to their nation's economy. There have been instances in which the policies of the government have become increasingly self-centered and protectionist. It has been a widely held belief for a very long time that protectionism can be advantageous to a nation. If a country believes that its terms of trade have improved as a result of tariffs, there are two primary reasons for this belief. In the first place, there are a variety of pricing that may be reasonable enough to convince countries to engage in commerce. Secondly, if international suppliers were to lower their prices, it would result in increased profits, which would ensure continued access to the market.

According to Buhari (2013), one of the initiatives that the government is taking to support policies is to remove all of the non-essential formalities that are linked with traffic in ports. Measures taken by the government to facilitate general trade and procedures include the following: The dissemination of the existing regulations governing import and export on the internet. Consultation with stakeholders over new draft regulations (prior to

the finalization of these regulations). Prior to the adoption of new regulations, advance publishing or communication of those regulations (for example, thirty days in advance). The acceptance of physical or electronic copies of supporting documents that are necessary for the completion of formalities related to import, export, or transit. A preliminary decision (on the classification of tariffs). It is possible for traders to appeal the decisions made by Customs and any other relevant trade control agency through an independent appeal procedure. The establishment of a national trade facilitation committee or another entity of a similar nature, as well as cooperation between agencies operating on the ground at the national level, are two additional ways in which the government can demonstrate its support. The delegation of control from government agencies to customs officials, the alignment of working days and hours with neighboring nations at border crossings, and the alignment of formalities and processes with adjacent countries at border crossings are all examples of measures that fall under this category.

2.2.4 Shortages of Skilled Workforce

The logistics industry is confronted with a multifaceted challenge in the rapidly evolving and fast-paced world of today: the persistent scarcity of qualified labor. This challenge is anticipated to become more severe in the years ahead, as the logistics industry is expected to expand significantly as a result of the globalized character of trade and the increase in demand for e-commerce. Nevertheless, the industry is experiencing difficulty in attracting and retaining the highly qualified workers necessary to meet the increasing demand, despite this growth (Chen et al., 2020).

The logistics industry also fails to prioritize employees' technical expertise, education, and specialized training (Govindan et al., 2014). Despite the substantial contribution of this sector to the GDP, the absence of skilled labor to provide the desirable logistics services is a significant impediment (Thai & Egbuna, 2011). In order to enhance its performance, it is crucial for a logistics company to invest in a reliable and predictable customs administration (Ratnasingam, 2003). In order to guarantee compliance, employees must possess a comprehensive understanding of government regulations and have access to advanced technology systems. Logistics continues to be a labor-intensive endeavor, despite the extensive automation and mechanization. Consequently, the quantity and character of the workforce have a significant impact on the logistical performance of businesses, industries, and nation-states (Fisher et al., 2010).

Adversely impacting both the efficiency and quality of a logistics operation is the inability to locate an adequate number of individuals with the necessary skills and competencies. The upskilling of employees is necessary to keep up with the rapid advancement of technology in logistics tasks at the upper end of the occupational hierarchy and those with a high IT content. However, at an operational level, the increasing mechanization and automation are de-skilling some of the work, rendering it unappealing, repetitive, and monotonous for a significant number of individuals. The logistics sector's alleged challenges in recruiting and retaining personnel are partially attributable to its unfavorable reputation as an employer, the nature of its operations, and the working conditions.

As a result of the pressure to improve efficiency while maintaining safety and environmental standards, ports frequently operate under strict regulatory frameworks. Bottlenecks, delays in cargo handling, backlogs of orders, personnel dissatisfaction, and increased operational costs can all result from a shortage of workers in ports, which ultimately affects the entire supply chain. Consequently, this leads to operational disruptions, safety concerns, recruitment and retention challenges, industry-wide repercussions, and an impact on efficiency (Daza et al., 2019). Furthermore, the scarcity of laborers and ground transportation has restricted warehousing to capacities that it may not have foreseen, which has further exacerbated the effects of the supply chain beyond ports. Additionally, ports are confronted with the challenge of recruiting and retaining qualified workers, as well as the competition for labor from other industries, as a result of the demanding nature of the work, irregular schedules, and potential automation threats (Francesco et al., 2015). Consequently, the shipping sector is experiencing substantial shortages; however, the multifaceted duties and distinctive operational dynamics of ports create a unique and potentially more difficult situation.

Hand cart, loading and offloading, auto delivery, labeling, pallet jack driver, forklift experience, and pallet jack are all measures of port workers' skills. According to Sheffi (2012), the spatial concentration of logistical activity around major transport centers has exacerbated logistics labor shortages in certain countries, thereby intensifying competition for labor in more remote areas with low population density. A general term that encompasses specialized workers and general workers (operatives) operating on land and on ships is "port/dock worker." Operators (or drivers) of a variety of machinery, including forklifts, straddle carriers, reach stackers, bulldozers, bobcats, conveyor belts, and cranes (also known as "winchmen"), signalmen (hatchmen, hatch tenders, or deckhands), lashers,

tallymen (also known as "tally clerks" or "checkers"), (gang) foremen, and chief tallymen and chief foremen (supervisors). Signalmen are responsible for the supervision of the raising and lowering of slingloads, as well as providing the winchman with the requisite signals at the hatchway aperture. Lashers are individuals who secure, unleash, lash, and release cargoes that are stored in the ship's hold or on deck. Checkers or tallymen maintain a record of the quantity or weight of goods that have been shipped or received, and they inspect the goods for any signs of damage or shortages. Foremen are accountable for the supervision and administration of a group of workers. There is typically one gang of laborers per ship's hatch or hold, as well as per shoreside crane.

The quantity of dock labor input is typically quantified in terms of the number of person-hours worked or the size of the docker workforce that is deployed to manage cargo. The output quantity may be indicative of the created value-added for the terminal operating company or the cargo volume handled per time unit (e.g., an hour, shift, week, month, or year). The value-added of dock labor is the improvement to the supply chain that the personnel of the terminal operating company makes in a supply chain context. Value-added is the sum of wages, amortizations of capital products, and loss/profits from an accounting perspective. Many ports and terminal operators have developed a greater interest in developing value-added services, in addition to the more conventional approach of maximizing cargo tons handled, as the significance of integrating ports and terminals in value-driven supply chains has increased.

It is important to take into account the nature of the cargo and the technology used to manage it when utilizing the output per person-hour or tons per gang shift. For example, the benchmarking of terminal labor productivity necessitates indicators that integrate the technology used with the handling rates. This can be achieved by examining the output per person-hour produced with a specific stock of fixed capital of a specific technology and operational characteristics. The second dimension of labor performance is cost efficacy. Technological advancements in cargo handling facilities have resulted in enhanced quality and labor productivity, but they have also introduced new qualifications and skills requirements for the workforce.

The logistics sector is characterized by a scarcity of skilled labor, which results in a variety of issues, including the improper handling of products, rash driving, losses, the necessity of assigning a separate individual to each task rather than allowing for multitasking, and a reduced standard of living. The calibre and competence of the personnel have a significant impact on logistics performance at both the company and country levels.

The industry is in a state of perpetual evolution, necessitating employees who are adaptable and capable of rapidly acquiring new technologies and processes. Nevertheless, a significant number of logistics industry employees are unable to remain current with the industry's evolving needs due to a dearth of requisite training and skills (Mangan et al., 2016).

2.2.5 Logistics Custom Clearance

There are a variety of reasons why the process of customs clearance might be difficult and complicated for European freight forwarders. The payment of taxes, charges, and tariffs is typically required in order to clear customs. These fees can vary widely depending on the country of origin, the type, quality, and value of the commodities, as well as trade agreements and diplomatic relations. The process of navigating and transferring cargoes is fraught with a multitude of problems, including tariffs and duties, compliance requirements, and documentation requirements. For the purpose of scanning, the container is placed into a truck and then transported through the scanning machines, which can be located either in the port or at the station that handles container freight. In the event that the scanned image reveals any anomalies, customs will typically proceed with the verification process. It is necessary to set containers on the ground, open them, and remove their contents before customs verification may take place. For the purpose of carrying out verification at a Container Freight Station, it is necessary for the operator of the Container Freight Station to transfer all of the cargo to the appropriate Container Freight Station (Bryson, 2015).

The operations of customs authorities, on the other hand, are connected with a large loss of time during customs clearance and crossing the state boundary (Martincus et al., 2015). This is a critical factor that has a significant impact on the efficiency of supply chains. Therefore, from a business perspective, any delays automatically turn into a cash equivalent. This is applicable to any situation. Companies that specialize in logistics may offer a variety of customs services, such as declaration, duties and taxes, agency services, permits and licenses. For the purpose of ensuring a smooth clearance procedure and preventing the rejection or seizure of goods, freight forwarders are required to comply with a variety of norms and laws. Regulatory standards pertaining to sanitary and phytosanitary practices, as well as product safety and environmental protection, are among the most essential criteria. Furthermore, European freight forwarders may be subject to legislation

concerning labor and human rights, export control, and intellectual property, all of which are designed to safeguard patents, copyrights, and trademarks (Krikavsky, 2004).

According to Ratnasingam (2003), it is particularly challenging for customers and logistics service providers to anticipate customs procedures and taxes. Companies that deal in logistics may be required to provide custom documentation. Among these are the submission of documentation pertaining to import or export at the border or ports of the respective country for the purpose of further evaluation (Hollweg, 2019). It is necessary for Customs to optimize its inspection procedure in order to target high-risk containers without obstructing the flow of safe containers by causing additional delays at ports. According to Pourakbar et al. (2018), the utilization of port clearance systems in a manner that is both efficient and effective has not only resulted in a reduction in costs but has also proven to be beneficial in terms of improving the efficiency of logistics management at the port.

The effectiveness of the customs clearance process is one of the most notable variables that determine the efficiency of the port's logistics. The delays that occur during customs clearance can be a substantial challenge for logistics organizations, resulting in dissatisfaction as well as the possibility of financial losses. On the other hand, logistics companies may reduce the likelihood of delays and guarantee that their items are cleared in a timely and effective manner by first gaining an understanding of the factors that contribute to such delays and then putting into action solutions that are successful.

In addition, the World Bank Organization acknowledges the significance of the effectiveness of customs procedures. These individuals came up with the LPI, which stands for the Logistics Performance Index. The effectiveness of customs is the most important component of the LPI (Arvis, 2016). Customs efficiency in International LPI (the efficiency of the clearance process (i.e. speed, simplicity and predictability of formalities) by control agencies, including customs); and customs efficiency in Domestic LPI (quality and competence of service of customs agencies, clearance and delivery of imports and exports, transparency of customs clearance, provision of adequate and timely information on regulatory changes, number of agencies for imports and exports, number of forms for imports and exports, etc).

The LPI places a particular emphasis on the effectiveness of the customs administration. This index considers the extent of services offered by customs authorities and other relevant agencies, as well as the perception of the private sector regarding the effectiveness of the procedures involved in customs clearance. In addition, the effectiveness

and efficiency of clearing procedures (time, delays, expenses, etc.) carried out by customs and other border control agencies is an essential component of the LPI.

2.3 Reviews on Previous Studies

The authors Nthiwa and Wanjiru (2017) conducted an investigation on the factors that influence the performance of logistics at Mombasa Port, Kenya. The objective of this study was to investigate the impact that factors such as information technology, infrastructure, personnel competency, and customs clearance have on the efficiency of logistics management inside a business. The study utilized both descriptive and inferential research designs for its investigation. For the purpose of the study, the target group consisted of 108 individuals who provided responses from their different departments within the KPA as well as other major stakeholders in the port. By applying the Neyman formula to the target population, the researchers were able to determine that the sample size for the study was 85 responders. The use of questionnaires constitutes the method of data collecting. They made the observation that it was considered that information technology was responsible for being a catalyst for the appropriate improvements that are taking place at the port. The competency of the staff was one of the issues that contributed to the seamless operation of the entire organization in terms of the manpower required for all of the operations that were taking place. The infrastructure and customs clearance processes in any port capacity had an impact on the rate at which goods and cargoes moved from one location to another.

Gupta et al. (2018) conducted an analysis of the difficulties that Indian Logistics Service Providers encounter, including the identification of infrastructural limitations as a primary concern. They brought up issues such as the bad state of the roads, the insufficient capacity of the ports, and the excessive congestion. According to the findings of the study, there are 10 significant problems, some of which include a lack of government backing, shortages of skilled personnel, and financial concerns. They discovered, through the application of the ISM technique, that the most significant issues are the fragmented and disorganized sectors, the bottlenecks in the infrastructure, and the cost implications. Despite the fact that the government is making steps to improve, there is still a considerable amount of work going on. There is a lack of performance measures that relates all of the other difficulties, according to the report, which advises utilizing SEM for statistical validation.

Munim and Schramm (2018) conducted research to investigate the potential effects of port infrastructure and logistics performance on economic growth, with the role of seaborne trade serving as a mediator. From the point of view of port infrastructure quality and logistics performance, they carried out an empirical investigation into the deeper economic impact of seaborne trade, taking into consideration 91 nations that have seaports. It is common for politicians, investors, and the general public to question the value of investments made in the quality enhancement of port infrastructure and the impact that these investments provide to the economy. It is possible to give empirical proof of major economic impacts of port infrastructure quality and logistics performance by employing a structural equation model, often known as a SEM. The findings indicate that it is of utmost importance for developing nations to consistently enhance the quality of their port infrastructure. This is because it plays a role in improving the performance of logistics, which in turn leads to an increase in seaborne trade, which in turn leads to an increase in economic growth.

Using a global logistics intermodal network simulation, Yamaguchi et al. (2021) investigated the influence that the development of the Greater Mekong Subregion will have on Myanmar's logistics flow. Specifically, they focused on the East–West and Southern Corridors. For the most part, they concentrated on container shipping in Myanmar, which is anticipated to experience exponential expansion in the not-too-distant future due to the strong economic growth rates of the country. The simulation of the effects that Myanmar's logistics policies have on container shipping is the focus of this study. Among these initiatives are the construction of the Southern Corridor and the Dawei port, as well as the enhancement of the East–West Corridor that is located within the Greater Mekong Subregion. There is an application of the global logistics multimodal network simulation model to the land-based Southeast Asia (ASEAN) region. This model incorporates both maritime shipping and land transport. A crosscheck and comparison are performed between the estimated results achieved for a number of distinct situations and the information that is already available on flows that have been observed. The authors draw the conclusion that measures that remove cross-border obstacles and increase service standards in Dawei port would result in Thailand using Myanmar's ports for their cargo as well. This conclusion is based on the findings of the simulation.

In the year 2023, Shwe Zin Win investigated the impact that Covid-19 had on the efficiency of logistics services for road freight transportation in Myanmar. In order to determine the operational difficulties and disruptions in supply chain that the logistics

business in Yangon is experiencing, the study turned to descriptive analysis. The primary data collecting phase consisted of gathering information from consumers, drivers, and owners of freight and cargo through the use of a straightforward random sample technique. As a result of Yangon being the most important economic center in Myanmar and the location where the majority of the country's transportation is located, the study solely focused on 300 respondents from the Yangon area. According to the findings, the pandemic caused major disruptions to the operations of the logistics department, which resulted in decreased transportation capacity, increased expenses, and longer transit times.

CHAPTER III

OVERVIEW OF SEA IMPORT LOGISTICS SERVICE INDUSTRY IN YANGON

The purpose of this chapter is to provide an overview of the maritime import logistics service business in Yangon as well as the import services offered by logistics service providers in their respective cities. Additionally, it includes difficulties for the maritime import and logistics industry.

3.1 Overview of Sea Import Logistics Service Industry in Yangon

The development of the nation's logistics infrastructure serves as the foundation for Myanmar's logistics sector. Myanmar's advantageous geographic location makes it a major worldwide hub for logistics. Due to its location at the intersection of three economic development poles and its border with five neighboring nations, it is significant for commerce and investment. Nevertheless, since 2021, Myanmar's transportation and logistics sectors have suffered. The paucity of shipping containers, border closures, and growing fuel prices have all had an impact on logistics companies. Potential FDI inflows along with infrastructure and logistical capacity and capability investments will open up new avenues for robotics, automation, and analytics spending, all of which can eventually support the growth of trade and import/export operations. Enhancing industrial infrastructure to meet world standards is the goal of investments in the logistics sector, which include building new economic zones like Thilawa, Dawei, and Kyaukphyu, as well as expanding the road and rail networks and seaports and airports.

Transporting freight by sea is the most economical method of transportation. In Myanmar, sea transportation dominates the freight forwarding industry. The majority of carriers work in the main thoroughfares, and the market is incredibly disorganized. The fragmented character of the market presents numerous prospects for mergers. This would improve order consolidation, which would save costs and increase efficiency. In the Financial Year (FY) 2022, the sea mode of freight transport dominated the Myanmar freight market, with Third-Party Logistics (3PL) businesses accounting for a larger portion of total income than integrated companies. Due to the inland rivers that make up Myanmar's ports and the 167-meter maximum length of a vessel's LOA, all shipments must pass through Port Klang or Singapore before arriving in Myanmar.

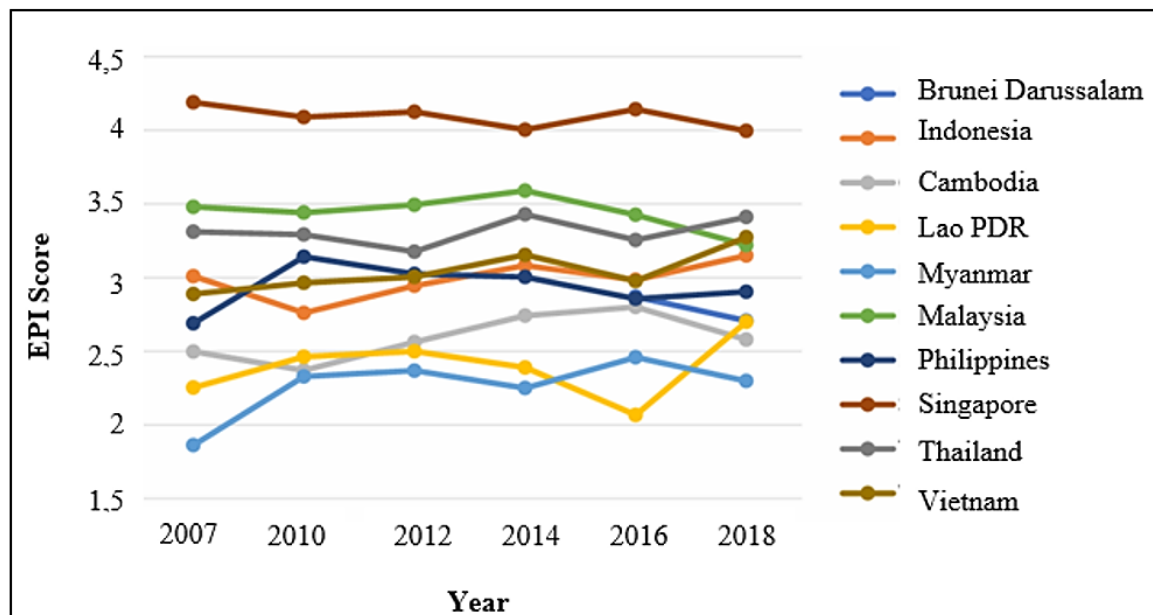
With a huge number of businesses in the freight forwarding, warehousing, and CEP areas, the market is extremely fragmented. In terms of fleet type, number of warehouses, warehousing capacity, freight volume, clients, and other factors, it is quite competitive. With the exception of Myanmar Rail (MR) and Inland Waterway Transport (IWT), which operate railroad freight operations, the majority of freight transport and logistics service providers are private enterprises. Even though Myanmar is strategically located between the three largest economies in the world—China, India, and the Association of Southeast Asian Nations (ASEAN)—decades of isolation have left physical hurdles that have impeded commerce and regional integration for a long time. Out of all the ASEAN countries, Myanmar came in at number 137, the lowest (World Bank, 2023).

Since 2011, Yangon's seaports have contributed significantly to the country's economic development. Rangoon's ports handled more than 90% of the world's commerce cargo between 2012 and 2016, comprising 75% of imports. Burma's economic progress depends on encouraging the country's logistics and transportation sector to thrive. In line with regional and global viewpoints, the Vision for Logistics Sector Development in Myanmar seeks to establish an effective, competitive, and ecologically sustainable logistics system, with a focus on enhancing multimodal transport for economic growth and poverty alleviation (CSO, 2022).

The Logistics Performance Index is an interactive benchmarking tool designed to assist nations in identifying opportunities and problems related to their trade logistics performance as well as actions they may take to enhance it. World Bank that evaluates the nation's logistics industry's performance using data from a comprehensive survey of international freight forwarders and express carriers. A World Bank ranking system called the Logistics Performance Index (LPI) can help with the opportunities and challenges involved in building and executing a nation's logistics capacity. The effectiveness of supply chains in integrating businesses with both local and foreign opportunities determines the success of logistics. The Logistics Performance Index (LPI) aims to measure a nation's logistical accessibility, or how well connected it is to the physical global logistics network. Additionally, publications and policy reports organized by international organizations or advisers also used the LPI results. For the logistics industry as well as logistics users, the LPI's results provide a worldwide standard. According to Arvis et al. (2018), the six major components include the performance of various countries while analyzing the World Bank's Logistics Performance Index (LPI). These elements include: International Shipments (the ease of arranging reasonably priced international shipments); Service Quality (the ability

and caliber of logistics services); Tracking and Tracing System (the capacity to track and trace system for consignments); Timeliness (the shipments reach consignees within the scheduled or estimated delivery time). (the expertise of customs and border management clearance procedures). Figure (3.1) displays the LPI Score for ASEAN Member States from 2007 to 2018.

Figure (3.1) ASEAN Member States' LPI Score (2007–2018)



Source: World Bank, 2019

A higher score on the indicator, which goes from 1 to 5, indicates better performance. The World Bank's Logistics Performance Index study provided the data. Singapore has the top spot in ASEAN for logistics performance. With an average virtually exceptional score of 4, Singapore has consistently ranked in the top 10 globally since the LPI's founding in 2007. The fact that the other ASEAN members are lagging behind should raise questions about the region's future connectivity and integration.

The information comes from the Logistics Performance Index study, which was carried out by the World Bank in 2023 in collaboration with commercial businesses, individuals involved in international logistics, and academic and international institutions. In 2008, Myanmar's logistics performance index was 1.69; by 2016, it was 2.33, based on the trends shown in Figure 3. Due to an increase in foreign investment at that time, Myanmar's logistics performance index saw a minor improvement. As a result, both imports and exports rose. However, due to a rise in sea transportation volume and the

greatest number of arrivals—355) for container ships—Malaysia's logistics performance index dropped to 1.99 in 2018. Facilities, machinery, labor, and other infrastructures could not effectively handle those volumes as a result.

Myanmar imports two different kinds of cargo. Container cargo and conventional cargo are those types of cargo. Table (3.1) shows the tonnage of main imported container cargo from 2019–2020 to 2021–2022.

Table (3.1) Imported Major Container Cargo (Tons) from 2019-2020 to 2021-2022

Container Cargo			
Commodity	Volumes		
	2019-2020	2020-2021	2021-2022
Garment	280,785	257,704	161,702
Electronic Materials	122,713	160,732	60,065
Vehicle and Materials	77,205	60,543	11,000
Paper	354,789	148,527	44,715
Tyre	46,861	33,672	18,373
Food Provision	889,137	918,792	573,667
Wheat	252,303	166,673	40,198
Sugar	118,601	87,437	78,514
Construction Materials	618,587	664,986	134,852
Plastic	320,320	377,417	171,342
Pharmaceuticals	31,570	37,623	38,838
Lubricant	122,147	97,443	67,924
Cement	20,802	22,064	16,260
Fertilizer	298,999	291,492	182,196
Bitumen	190,215	139,004	77,552
Other	4,895,681	3,404,084	2,998,577
Empty Container	70,166	48,940	97,230
Total	8,710,881	6,917,133	4,773,005
Percentage in total (%)		-21%	-31%

Source: Myanmar Port Authority, 2022

Table (3.1) displays the various types of important container freight from 2019–2020 to 2021–2022. Myanmar imported 8,710,881 tons of container cargo in 2019 and 2020. However, compared to 2019 and 2020, Myanmar's container freight (tons) declined by 21% to 6,917,133 tons. Container shipping declined by around 31% from 2020 to 2021 in 2021–2022, totaling 4,773,005 tons in 2021–2022. The COVID-19 pandemic has severely disrupted global supply chains, decreased demand, and created logistical issues, which has resulted in a reduction in container cargo volumes from 2019 to 2022. The worldwide economic downturn has had an effect on the demand from consumers for

products like electronics and clothing. Inefficiencies resulted from supply chain problems such port traffic jams and container shortages. Poor road conditions and port capacity were among the infrastructure issues that made it difficult for products to transit.

Table (3.2) presents imported major conventional container cargo (tons) from 2019-2020 to 2021-2022.

Table (3.2) Imported Major Conventional Cargo (Tons) from 2019-2020 to 2021-2022

Conventional Cargo			
Commodity	Volumes		
	2019-2020	2020-2021	2021-2022
Steel Materials	1,638,687	1,355,322	969,432
Fertilizer	360,095	456,312	386,432
LNG	-	339,769	93,181
Vehicle and Materials	104,481	108,312	69,449
Soybean Meal	-	144,549	199,654
Palm Oil	720,361	783,350	662,206
Diesel	3,231,373	3,252,296	2,494,689
Petroleum	2,213,091	1,948,414	1,744,601
Aviation Spirit	319,045	65,510	66,614
Crude Oil	11,090,613	8,628,289	11,495,789
Ammonium Nitrate	67,058	25,017	3,502
Wheat	180,915	332,872	299,086
Clinker/Cement Clinker	221,582	102,599	27,000
LPG	50,892	14,004	57,771
Pile	3,168	16,121	52,924
Cement	-	-	66,575
Coal	404,335	513,261	30,800
Other	92,598	1,088,450	23,723
Total	20,698,294	19,174,447	18,743,428
Percentage in total (%)		- 7%	- 2%

Source: Myanmar Port Authority, 2022

As shown in Table (3.2), as conventional container cargos, Myanmar imported mainly miscellaneous items that fall into other categories. In 2019 to 2020, Myanmar imported conventional cargo reached 20,698,294 tons. Myanmar's container cargo (tons) was decreased to 19,174,447 tons representing 7% decreased from that of 2019 to 2020. In 2021-2022, conventional cargo was reduced again to 18,743,428 tons representing approximately 2% decreased from that of 2020 to 2021. Regarding conventional cargos, Diesel was mainly imported to Myanmar. 2,494,689 (61.3% of total tons of conventional cargos) tons of imported conventional cargos to Myanmar in 2021-2022. This also declined in conventional cargo from 2019 to 2022 due to Covid 19 pandemic, trade policies and infrastructure challenges.

3.2 Sea Ports in Yangon

Myanmar's southwest region features a vast stretch of shoreline. Nine ports are located along the coastline to facilitate both domestic and international maritime transportation. Under the direction of the Ministry of Transport and Communications (MOTC), the Myanmar Port Authority (MPA) has been in charge of managing all of the country's ports.

There are two distinct locations inside the ports of Yangon: Thilawa Port Area and Yangon Inner Harbour (Main Port). The mouth of the Yangon River is located at Elephant Point on the Gulf of Martaban, some 32 kilometers inward from Yangon Port. Thilawa Port is located roughly midway between the two locations. Both port areas are on the Yangon River's bank, and there are two sand bars at bottlenecks: the Inner Bar, which is close to Yangon Inner Harbour, and the Outer Bar, which is at the river's exit. Due to the nature of the river port, all ships that call at Thilawa and Yangon ports have often sailed during flood tides, crossing both the Inner and Outer Bars at nearly high tide to provide adequate water depths. Dredging for maintenance purposes has been done every day at Inner Bar to achieve a suitable water depth, while at Outer Bar, navigation buoy reallocation has occasionally been done. Given the current state of the Yangon River's water depth, the Yangon Port has formally announced that vessels up to 167 meters in length overall (LOA), 9 meters in draft, and 15,000 deadweight tons (DWT) are accessible. Similarly, vessels up to 200 meters in length, 9 meters in draft, and 20,000 DWT are accessible in the Thilawa Port region. Currently, Yangon port's terminals (which include Thilawa port area) can accommodate 24 seagoing vessels at once (18 at Yangon inner harbor and 6 at Thilawa port area). Of the twenty-four berths, MPA owns seven for its use. Both domestic and foreign investors own the remaining assets. Presently, seventy percent of the port's total quay length is made up of private terminals.

Of these, Yangon Port is the most important port in Myanmar, handling about 90% of routine imports and exports from the nation. With the exception of Yangon Port, all other ports, also referred to as outports, primarily manage coastal trade and very little international traffic. The maritime sector in Myanmar has had remarkable growth since the new administration took office in 2010. Yangon Inner Harbour has 3 inland container depots (ICDs) and 18 international wharves operated, 3 under Bo Aung Kyaw Street Wharf (BSW), 2 under Htedan Port Terminal (HPT), 7 under Sule Pagoda Wharf (SPW), 2 under Myanmar Industrial Port (MIP), 3 under Asia World Port Terminal (AWPT), and 1 under Htedan Oil Berth (HOB).

3.3 Factors affecting Logistics Facilities for Logistics Service Providers in Yangon

Shippers and consignees need effective logistics services to move their goods at the right place, right time, right condition, and right price in this competitive market. The shipping sector must adapt to new difficulties in a world that is always changing. Government policies, infrastructure bottlenecks, a lack of skilled labor, and customs clearance are among the problems broken down by industry. Companies need to handle every facet of these issues and be able to come up with long-term solutions if they want to ensure the future of logistics and the maritime industry. Referencing the study of Nthiwa and Wanjiru (2017), this study examines the lack of government support policies, skilled workforce shortages, and infrastructure constraints. Referred from Nthiwa and Wanjiru's (2017) paper are information technology and custom clearance problems. This study, which draws from earlier research, looks at the difficulties faced by logistic service providers, including delays in the customs clearance process, a lack of government assistance programs, a lack of competent labor, and infrastructure bottlenecks.

3.3.1 Transport and Logistics infrastructure in Yangon Sea Ports

The infrastructure of transportation and logistics plays the most crucial role in the country's sustainable growth. Ports serve as entry points to international trade partners, and maritime transportation is among the least expensive means of long-distance transportation. For any nation to engage in international trade, port development is a crucial step. Consequently, a nation's economic prosperity depends on port development and reform. As a developing nation, Myanmar faces numerous obstacles in the process of building its economy and foreign trade. Therefore, in order to assist the nation's social and economic development, the Ministry of Transport and Communications (MOTC) has placed a high priority on the sector's growth.

The lack of infrastructure at both major and local ports in Myanmar is one of the industry's biggest problems; this needs to be addressed for improved economic growth. A further blow to the marine industry is the loading and unloading times, which are relatively uncompetitive with nearby foreign ports due to antiquated marine architecture and a lack of adequate and updated technology application. The advancement of the coastal road and rail network, as well as the development of the electrical infrastructure, are closely related to the growth of the marine industry (OECD, 2020).

Table (3.3) List of Equipment of MITT, MIP and AWPT

Facilities/Equipment	Port Name		
	AWPT	MIP	MITT
Number of Berth	4	1	5
QGC (no.)	2	5	2
HMC (no.)	3	7	-
RTG (no.)	5	12	3
Reach Stacker	13	25	2
Mobile Crane	3	8	2
Forklift (15ton)	-	1	-
Forklift (10ton)	-	15	-
Forklift (7ton)	-	1	-
Forklift (6ton)	4	1	2
Forklift (5ton)	-	5	-
Forklift (3.5ton)	-	1	-
Forklift (3ton)	1	2	5
Empty Container Lifter	3	31	-
Yard Tractor	30	40	15
Yard Chassis 20'/40'	30	40	5
Container Storage Capacity (TEU)	7,045 TEU	20,265 TEU	2,500 TEU (present) Phase-I (350,000 TEU/Y) Phase-II (1 Mmillion TEU/Y)
Reefer Container Storage Capacity (TEU)	288 TEU	4,000 TEU	108
Total Terminal Operation Area (sq.m)	123,170	263,905	750,000

Source: JICA, 2020

Every port in Yangon has two X-ray machines, and a shortage of these equipment never causes a delay in the release of cargo. Despite being located at the port, these two X-ray machines are not in use at the same time. Currently, not every import container needs to pass through an x-ray. The Green Channel cargo in MACCS does not require an X-ray

inspection. All that has to be X-rayed are the Red-Channel cargos. The majority of import shipments, nevertheless, do not pass via the green route.

When delivering containers to downtown areas, the export container cars are unable to form a queue. For import containers, therefore, the container trucks are not available. The DG yard is not a good location for hazardous cargo during the rainy season. Certain hazardous cargoes require a lengthy line to reach the container barrier, making it challenging to do so during the wet season. Unlike the other products, DG cargo must open in the DG yard rather than a warehouse. Table (3.3) lists the amenities and machinery of Yangon's common ports.

In order to support break-bulk, container, dry, and liquid bulk activities, AWPT provides a range of facilities and handling equipment in addition to three mobile harbor cranes, forklifts (6 tons and 1 ton), and thirty yard tractors, as indicated in Table (3.3). It has no other forklifts available for moving freight. There are no container gantry cranes or dock-side cranes at the AWPT port. However, MIP ports have more amenities than AWPT ports. There are eight mobile harbor cranes, four boom cranes, and four ship-to-shore quay cranes. Furthermore, there are enough forklifts, reach stackers, and gantry cranes. There are just forklifts (6 tons and 1 ton) and no empty container lifter at MIT. There are no mobile cranes. The only port in Myanmar equipped to accommodate roll-on/roll-off (RORO) automobile carriers is MITT. The data indicates that MIP and AWPT have the greatest Total Terminal Operation Areas, followed by MITT.

The Port of Yangon has to upgrade its infrastructure and capacity in order to handle bigger ships and more vessel calls. At the moment, MITT, MIP, and AWPT are the ports that receive the most import shipments. The MITT port makes it easy to load containers quickly and has plenty of room for waiting for them to load. Due to the limited capacity at AWPT and MIP, there is a lengthy wait to load container vehicles. Crane cars and forklifts cannot maneuver through the ports if there are obstructed automobiles. Myanmar's ports have the potential to become into regional transportation centers that service markets in China, India, and the Indo-China region, despite their current state of underdevelopment. Companies would be able to save money and time on shipping because to the shorter international commerce route from Europe.

The partial scarcity of 20-foot containers and the increased cost of container freight continue to be obstacles for sea trade. Transport and logistics services are no longer easily accessible or readily available due to additional mobility limitations, bottlenecks between

each state and region, and the requirement for travel authorizations. The frequency, quality, and efficiency of the transport service operations have all decreased due to increased regulatory restrictions. Ports lack equipment during peak season, such as container cranes and forklifts in the downtown port. All of the machinery is not operating even though it is not the busiest time of year because of maintenance and other problems. As a result, the business starts late and has little equipment. There isn't enough room for every container, and the containers must wait in line for customs inspection. As a result, the containers are loaded onto the truck and made to wait for many hours before their turn.

At the docks, the many containers were frequently the source of suspicion. The result is a traffic bottleneck and a blocked stone street. Furthermore, when the port's trucks are full, the AWPT section closes the gate. The port's container trucks leave via Stone Street, and container operations are open from 9 a.m. to 6 p.m. The traffic bottleneck makes it impossible to enter the main route, which causes delays in getting to the destination. While containers are permitted during operating hours (6 p.m. to 12 p.m.), the existing state of affairs is insufficiently safe, hence import cargo and containers must remain overnight at the same location as cargo undergoing a delayed customs inspection. Due to the lack of energy, operating a generator is more expensive when it comes to reefer containers.

The transit time of container cars is no longer restricted. The downtown area is restricted to nighttime access and is marked as a no-entry area. Only at night and in the evening can container cars enter certain places if goods need to be delivered there. At the ports, electricity is provided around-the-clock. The reefer containers use a generator in the event of a power loss, and the costs are higher. The Container Freight Station (CFS) warehouse proved inconvenient during the peak import shipment period, despite having ample space for import shipments.

At a container terminal, RTG, high-voltage electricity powers a gantry crane, while diesel oil powers a reach stacker and an empty container lifter. These are examples of huge cargo handling equipment. Given the dire state of the energy supply in Myanmar, where blackouts during ship stevedoring operations are projected to occur, having a personal inside-fence generator capable of powering a gantry crane is a must. In actuality, AWPT and MITT each contain internal fence generators that are powerful enough to run gantry cranes. In order to provide lighting for the yard and refrigerated containers, two 2,000 kVA generator units are set up.

The delay resulting from customs' physical inspection of the majority of import shipments is the cause of the inadequate container loading bay. The loading bay's protection

is adequate if there is less physical inspection. DG shipments (LCL) of freight are not appropriate during the wet season. While DG (LCL) cargo must only be checked out at the DG yard, normal freight must be checked out at the port warehouse. As a result, the customs officer personally examined the cargo at the DG yard. Occasionally, in order for the customs inspector to inspect the products at the DG yard, custom brokers or logistics service providers must set up a car.

With the growth of its ports, Myanmar has the potential to become a hub for regional trade and transportation. Some of the largest ports in the world, like Chennai in India and Chittagong in Bangladesh, are already located in the Bay of Bengal, which is a sign of the region's enormous potential. Naturally, this concentration exceeds the capacity of the port and the urban transportation system of Yangon, a progressively clogged and dirty metropolis. In addition to the high percentage of general cargo, the lack of bonded warehouses is another factor contributing to harbor congestion and, despite recent improvements, the length of the clearing procedures. Owing to its relatively shallow draft of approximately seven meters, the port of Yangon can only handle ships weighing no more than 12,000 deadweight tonnes. Yangon Port handles regular freight as well as container shipments.

There are currently nine ports in Myanmar, located along the country's western and southeast coast: Yangon, Sittwe, Kyaukphyu, Thandwe, Patheingyi, Mawlamyine, Dawei, Myeik, and Kawthaung. Furthermore, Hutchinson Port Holdings is the owner and operator of Myanmar International Terminals Thilawa (MITT), a privately owned multipurpose container facility. However, the remaining ports—aside from Yangon, the nation's main port—are supposedly little coastal ports with inadequate port handling capacity.

The development of transport infrastructure is essential to ASEAN's objective of creating a common market and manufacturing base while closing economic divides between and within its member nations. The development of transportation infrastructure include not only the construction of physical facilities but also the enhancement of "soft" infrastructure, which includes multilateral initiatives and agreements, rules, regulations, and procedures related to transportation. Myanmar's transportation infrastructure is of worse quality than that of its neighbors and socioeconomic class. Myanmar continues to encounter difficulties with its inadequate logistics infrastructure, including badly maintained roads and a shortage of warehouse facilities, despite continuing infrastructure development projects.

Since 2011, Yangon's seaports have contributed significantly to the country's economic development. Rangoon's ports handled more than 90% of the world's commerce cargo between 2012 and 2016, comprising 75% of imports. The decrease in container imports to Myanmar and the worldwide container scarcity are both contributing factors to the increase in freight costs. The lack of available containers globally and the poor trade routes to Myanmar are contributing factors to the rise in freight charges. Furthermore, importers now pay higher freight rates as a result of alterations to laws and regulations and postponements in the issuance of import permits.

Larger vessels are unable to dock at the Yangon ports due to their restricted accessibility, which only allows vessels up to 15,000–20,000 deadweight and 167–200 meters long, respectively. However, dredging efforts are under progress to expand the ports' capacity to accommodate up to 35,000 deadweight vessels. Currently, frequent dredging is required to guarantee port access, especially during the dry season.

Table (3.4) displays Yangon Port's capability to handle containers. Port terminals showed their container handling capacity as the Twenty-foot Equivalent Unit (TEU) of each terminal's container storage capacity as read from brochures.

Table (3.4) Container-Handling Capacity in Yangon Port

Year	Import (TEUs)	Export (TEUs)	Total (TEUs)	Growth
2017	515,930	518,598	1,034,528	-0.30%
2018	552,693	551,408	1,104,101	6.70%
2019	569,740	558,613	1,128,353	2.20%
2020	544,098	551,149	1,095,247	-2.90%
2021	349,245	344,771	694,016	-36.60%
2022	432,065	414,361	846,426	22%
2023	381,816	379,741	761,557	-10%

Source: Myanmar Port Authority, 2023

Table (3.4) demonstrates that in 2017, the total TEUs handled decreased by 0.30% as a result of regional operating difficulties and uncertainty in the global economy. With a 6.70% increase in total TEUs the next year, 2018, port infrastructure upgrades and improving economic conditions propelled the phase of recovery and growth. Though at a lesser pace of 2.20%, this rise persisted into 2019 and was due to steady trade activity as well as little advancements in port operations. But in 2020, it has decreased by 2.90%,

mostly as a result of the COVID-19 pandemic's worldwide disruptions, which had a substantial influence on trade and shipping. The protracted effects of the pandemic, political unrest, and operational difficulties at the port were the reasons for the sharp decline in total TEUs in 2021, which marked a worsening of the situation. The port saw a robust recovery in 2022, growing by 22%, as post-pandemic economic activity recovered and demand for products rose. Sadly, this rebound was fleeting, as 2023 saw a 10% drop in total TEUs due to a decline in cargo ship arrivals, persistent operational and economic difficulties, and possible infrastructure constraints. These variations show how susceptible the port is to both local and global influences, highlighting the necessity of ongoing infrastructural and operational efficiency improvements in order to support expansion.

3.3.2 Logistics Technical System in Yangon Sea Ports

Since global trade has increased, it is critical to carry out logistical operations in accordance with international norms. Trade in Myanmar has improved as a result of political and economic reforms. Myanmar Customs Intelligence System (MCIS) and Myanmar Automated Cargo Clearance System (MACCS) have been operational in Yangon since November 2016 to facilitate international trade.

The Department of Trade under the Ministry of Commerce, the Department of Fishery under the Ministry of Agriculture, Livestock and Irrigation, the Department of Plant Protection Division, the Department of Drug Administration under the Ministry of Health and Sports, and the Myanmar Economic Bank under the Ministry of Planning and Finance are just a few of the governmental departments that the Myanmar Customs Department has granted access to within the MACCS system. These departments are required to provide approval and take necessary action as part of the approval process for the customs declaration. In addition, customs brokers from the trading community, importers and exporters, air cargo companies, freight forwarders, container yards, airline companies, shipping line companies, and shipping agencies from the transport community have all used the MACCS. In June 2018, the Myawaddy border checkpoint (Thai border) successfully implemented the MACCS system. Next, the other border checkpoints were subject to the MACCS's usage. Nevertheless, running the file in MACCS is not convenient for shipments including more than 100 import elements. As a result, the manual file is opened and deleted.

The Port EDI system has been developed with the support of JICA since 2015 and the system consists of 6 system functions

- Port Clearance Procedures system;
- Berth Allocation system;
- Invoice issuing system;
- Statistics management system;
- Logistics Monitoring system; and
- Terminal Operation system

The terminal operation system in Yangon ports is built to automatically manage various aspects of the system, including yard and vessel planning for the cargoes carried by the system, cargo handling for inbound and outgoing vessels, and the generation of required passes through the use of computerized systems. At Yangon ports, digitization, new software, and sophisticated 5G networks have not yet adjusted. For the whole maritime sector, digital systems are the way of the future.

Most container cars do not have GPS fitted. Certain private container vehicles have GPS systems installed, but only the car owner and the container gate can access them. Importers and freight forwarding firms are thus unable to obtain real-time data. At the moment, GPS systems are intended to be installed in all trucks registered in the Yangon Region. Following the installation of the GPS system, it will be possible to monitor if the trucks are traveling at a speed over the posted limit, turning in the proper lane, operating during the day, etc.

There is no solution for container tracing available. While some shipping companies have websites that allow customers to track containers online, others do not provide importers with the same level of convenience or freight forwarding services. For this reason, in order to find out the vessel's ETA (Estimated Time Arrival), forwarding agencies must repeatedly communicate with shipping lines. Not all inventory management and electronic data interchange (EDI) systems are up to date and connected, and not all warehousing and container management procedures remain effective. The implementation of an electronic system that facilitates the sharing of essential data for port entry declaration and clearance, along with additional documents pertaining to cargo handling and storage at the port, has enhanced port efficiency. However, it still takes a long time to cross customs at ports (JICA, 2021).

3.3.3. Government Policies for Sea Import

The Sea Customs Act (1878), the Land Customs Act (1924), the Export and Import Law (2012), and the Tariff Law (1992) regulate the import and export of products into and out of Myanmar. The Ministry of Planning and Finance, Myanmar Customs, and the Ministry of Commerce are in charge of enforcing these laws. The primary legislation that controls licensing authorization is the Control of Imports and Exports (Temporary) Act, 1947, which remains in effect despite occasional amendments. The Ministry of Commerce is in charge of enforcing this law and periodically releases the required notifications, orders, and directives relating to all export and import-related issues, including the granting of licenses and permits.

In an effort to promote domestic industrialization, the State Administration Council has implemented a number of import substitution programs from April 2021. As of June 2023, non-licensed commodities must apply for a license; the length of time it takes to get a license depends on the commodity and can range from seven months to a year. The goal of the law is to counteract rising import volumes into Myanmar by bolstering and safeguarding the competitiveness of regional producers and SMEs. The economic policies of the SAC have shifted toward an import substitution paradigm, with limitations imposed on more than one-third of all imported goods.

In order to prevent uncontrolled imports from seriously harming domestic producers, trade remedies, or safeguard measures, may include import quantity restrictions and tariffs. Obtaining an import license requires time. For importers, obtaining import licenses is a difficulty. Only about 10% of imported items receive licenses as a result of the Ministry of Commerce's strict import requirements. The government of Myanmar publishes many import license application policies, although the policies are subject to constant modification.

Table (3.5) Prohibited Import Products

Overseas		Border Trade	
No.	Commodities (FoodStuffs)	No.	Commodities (FoodStuffs)
1.	Seasoning powder(MSG)	1.	Seasoning powder(MSG)
2.	Soft drinks	2.	Soft drinks
3.	Biscuits Assorted	3.	Biscuits Assorted
4.	Chewing Gum	4.	Chewing Gum
5.	Cake	5.	Cake
6.	Wafer	6.	Wafer
7.	Chocolate	7.	Chocolate
8.	Canned foods(meat&fruits)	8.	Canned foods(meat&fruits)
9.	Noodles	9.	Noodles
10.	Liquor	10.	Liquor
11.	Beer	11.	Beer
12.	Cigarette	12.	Cigarette
13.	Fruits(fresh)	13.	Fruits(fresh)
14.	Prohibited products as per existing laws	14.	Plastic wares
		15.	Prohibited products as per existing laws

Source: Ministry of Commerce, 2024

The purpose of import limits is to stop the further depreciation of the Myanmar kyat and to lessen outflows of foreign cash, which is believed to be decreasing. Burma's export industry is in decline, which is resulting in lower export revenues. Importers are having

trouble paying their suppliers in foreign currency because of this slowdown. Furthermore, payments to suppliers may only be made via authorized channels. It is a nearly 500-page document that contains the recent readjustment of the laws pertaining to over a thousand different types of goods, such as fish, meat, electronics, cosmetics, building materials, and many more. The primary requirement is that the entire import process undergo approval and licensing. This regulation will be applicable to all businesses that operate in special economic zones.

When international prices drop, importers can purchase certain goods—like pharmaceuticals, different electric vehicles and their accessories, industrial raw materials and industrial chemical raw materials, and foodstuffs—without needing to apply for import licenses. Customs warehouses may hold those products in compliance with customs protocols; prior import license acquisition is not required. In the case of any other commodities, the importing company shall face legal prosecution in compliance with export import law if the cargo arrives at the port prior to the approval of the import license, including permit. This will help importers by enabling import license applications using Myanmar Tradenet 2.0's Automatic Licensing system.

It would be crucial for the importers to control risks and create plans to minimize exposure to these possible tariff and non-tariff actions. The things listed below are currently prohibited from entering the country from abroad and from crossing borders. The list of goods that are barred from importation will be updated periodically to reflect changes in the local market environment.

Myanmar has put a prohibition on goods entering its borders from neighboring nations, such as China and Thailand. Usually, the goal of trade restrictions is to shield domestic businesses and workers from foreign competitors. Restrictions on the importing of products and services from overseas are known as protectionist policies. The primary goal of imposing these import restrictions, according to the authorities, is to encourage exports and assist domestic industrialization. There are already concerns about shortages and increased commodity costs as a result of Myanmar's new import restrictions. A list of food items that are forbidden from entering the nation is shown in Table (3.5). Authorities expressly create forbidden lists for cross-border and international trading on this list. Food items classified as Prohibited Commodities are nearly same for both international and border. However, one more thing is prohibited at the border trade: plastic goods. Commonly prohibited goods for both channels include alcohol, cigarettes, and food and drink items like cookies.

Overseeing changes to the Commerce Ministry's list of forbidden imports is the Directorate of Trade under the Ministry of Commerce. Publicized in trade magazines and bulletins, the list frequently changes with little notice. Apart from the aforementioned inventory, prohibited items also comprise of counterfeit money and goods, pornographic materials, illicit drugs, playing cards, and items with Buddha images, pagodas, weapons and ammunition, antiques and valuable artifacts, endangered wildlife species, or the Myanmar flag.

When it comes to official development assistance (ODA) for import value, the government is hesitant to accept it. A shadow market has emerged due to the lack of foreign exchange and has restricted the import of consumer products. The private sector engaged in foreign trade at exchange rates that were competitive in the market. Currency restrictions and other legislative measures also made imports difficult. Numerous laws and regulatory processes apply to the freight and logistics sector in Myanmar, which can make conducting business more difficult and complicate operations.

The Ministry of Commerce (MOC), Department of Trade (DOT), has declared that it would no longer be accepting applications for import licenses and permits for goods that have already reached the port. The Department of Transportation (DOT) observed that many importers were taking advantage of the seven-day grace period by applying for import licenses and permits after the products had reached the port. In keeping with earlier notices, the most current export/import bulletin (6/2022) announces that the DOT will no longer be accepting applications for import licenses and permits for goods that have already reached port. Additionally, DOT advised importers that breaking the Export and Import Law could result in legal action.

Although Myanmar Customs currently imposes the old penalty charge system, there is still some uncertainty over the application of the grace period (7 days) and if importers would still have a grace period to provide the necessary license and permits. The penalty cost can be anything from 1 to 4 percent of the actual value, and the detention term can be anywhere from 8 to 60 days. The customs department will seize the items if the importer is unable to provide the import license or permits within 60 days of the goods' arrival. Considering the present logistical difficulties and uncertainties that importers encounter, it is difficult to forecast the duration of shipments. Furthermore, importers have reported that the DOT is limiting the maximum CIF value per import license to approximately \$300,000 for licenses obtained overseas and \$50,000 for licenses obtained bordering the United

States. This means that, depending on the value of the shipment, importers may need to obtain multiple import licenses for a single shipment.

Myanmar's export industry is in decline, which is resulting in lower export revenue. Importers are having trouble paying their suppliers in foreign currency because of this slowdown. Only legitimate routes are available for processing supplier payments, which exacerbates the situation. In Burma, traders, including importers, frequently transfer and make payments using the Hundi system, an illicit non-banking financial method. The "import first, pay later" philosophy is no longer viable in Myanmar since a number of international suppliers have lost faith in local importers as a result of payment delays and banking difficulties.

The Ministry of Commerce in Burma is in charge of the Trade Department, and it just announced that import license applications can now be submitted using the Myanmar Tradenet 2.0 portal. This covers licensing schemes that are automated and those that are not. Import permits are now necessary for commodity lines that did not previously require them for seaborne trade. The necessary documentation for the importation of goods into Myanmar includes the following:

- An import license (depending on the nature of the goods).
- Invoice.
- Bill of lading, air consignment notes, or truck notes.
- Packing list.
- Any additional certificates, permits, or import recommendations as required, such as a country-of-origin certificate, SPS (Sanitary and Phytosanitary) certificate, or FDA certificate.

Because import laws and procedures are so complicated, most importers plan and execute their import operations with the assistance of specialized professionals like freight forwarders and customs brokers. Agricultural commodity exporters were required, starting on April 1, 2024, to convert thirty-five percent of their entire export revenues at the CBM rate within a single business day and trade the remaining sixty-five percent at the CBM online market trading platform. Myanmar exporters have had difficulty maintaining consistent trade flows as a result of the frequent changes in trade policy and the significant difference between the market exchange rate and the CBM reference exchange rate. To lessen the use of the US currency, Myanmar has not only placed limits on export revenue but also postponed or stopped issuing import licenses. The unpredictability of trade policy

has affected even the imports of goods that Myanmar has classified as priorities. The increase in fuel prices had a direct effect on operating expenses. Given the lack of foreign currency, tankers' longer wait times—up to eight days—at Yangon's ports may have an impact on fuel pricing.

The Myanmar government permits two different import licensing schemes, namely the Automatic Licensing Scheme and the Non-Automatic Licensing Scheme. To import any kind of commodities into Myanmar, import licenses are required. There are notifications and announcements available for both automatic and non-automatic licensing systems. Certain commodities require the application for an import license in addition to a certificate or recommendation from business associations, appropriate ministries, and agencies. the list of commodities and the relevant ministries that, depending on the kind of commodity, give the appropriate certificate or recommendation.

Three months following issuing is when the license is valid. The importer may request a two-month license extension after the initial three-month period. Applying again will allow you a second one-month extension. Before shipping, import license modifications may be possible.

3.3.4 Skilled Workforce

The lack of professional workers in the logistics industry these days makes it difficult to find and keep qualified employees. A few local companies are experiencing trouble filling positions. People are traveling abroad to work in search of higher pay as a result of the collapse of the value of the Myanmar currency and the rise in local prices following the coup. The logistics industry, which is essential to the seamless movement of products and services throughout the world, is struggling to deal with the effects of changing demographics, technology breakthroughs, and intricate global supply chains. Retirements from an aging workforce are causing a demographic shift in the logistics sector. There is a dearth of new talent in logistics since younger generations tend to choose jobs in other industries when they first enter the workforce. The generational divide is a big obstacle for businesses trying to find competent new hires to replace departing employees.

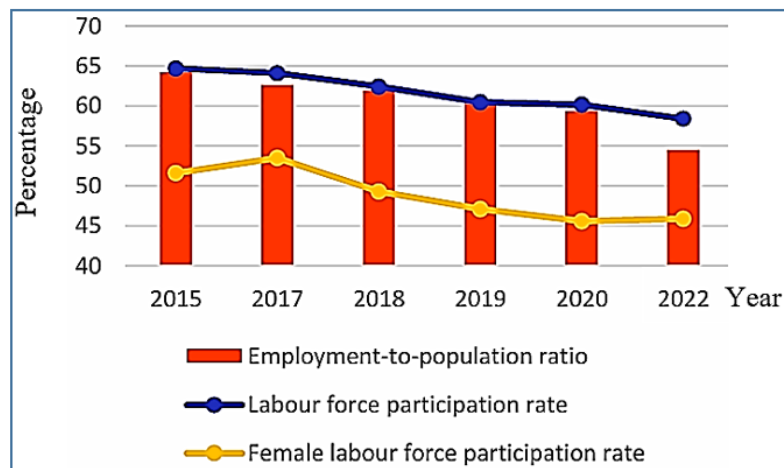
The complexity of today's supply chains, with their extensive worldwide supplier networks and intricate structure, has contributed to the labor shortage. The demand for people with the ability to handle global logistics and negotiate the challenges of trade has increased. Regretfully, there aren't many experts in the field who can manage these complex

logistics operations. Inadequate numbers of skilled workers lead to mistakes, inefficiencies, and delays. These inefficiencies have the potential to raise prices and impede the movement of goods. Furthermore, a large number of people depart the nation as a result of the income gap.

Maintaining quality control in the logistics and supply chain sector requires skilled labor. Lack of workers can result in insufficient supervision, which can cause errors, faulty products, or problems with compliance. Lack of qualified personnel to supervise procedures makes it difficult to ensure the quality and safety of products. Crane operators and forklift operators aren't always present at the port. Because there aren't enough people, loading and unloading takes a very lengthy time. It's possible that some MACCS users don't know everything there is to know about MACCS. Truck drivers, warehouse employees, and distribution center personnel shortages cause manufacturing delays, supply chain bottlenecks, and difficulties satisfying demand swings. Importers must pay detention and demurrage fees for that.

Like other freight sectors, the road freight business is facing capacity challenges in the wake of the Corona pandemic. Thankfully, since the world economy began to revive, demand for freight transportation has been so strong that it cannot be satisfied. Nonetheless, there are two issues with international road freight logistics: Volumes of freight are continuously rising as a result of the epidemic as well as independent factors. However, there is not enough labor to run businesses efficiently. This includes not just truck drivers but also warehouse operators and other on-site staff. In 2020, there was already a severe driver shortage, and in the near future, things are predicted to get much worse. Figure (3.2) shows the rates of employment and labor force participation from 2015 to 2022.

Figure (3.2) Labour Force Participation and Employment Rates from 2015 to 2022



Source: World Bank, 2023

According to the World Bank analysis, the employment rate fell by 8.2 percentage points from 62.6 percent in 2017 to 54.5 percent in 2022, as illustrated in Figure (3.2). In the areas where ongoing hostilities are more common, particularly in the northern Sagaing region and the eastern border regions of Kayah, Kayin, and Tanintharyi, the employment rate fall topped 15 percentage points. Although employment has recently increased in some industries, it has not increased at the same rate as the population. The employment-to-population ratio has significantly decreased from the pre-crisis period as a result.

In the midst of a protracted economic crisis, a large number of striking public sector employees are looking for job overseas due to the current political climate. As a result, it is challenging to find new employees to take their place, which makes it tough to hire and keep qualified staff. Logistics firms must adhere to the government's standard operating procedures (SOPs) in order for their staff to comply with newly amended laws and regulations. They must attend classes that the government has opened. Businesses offer training based on the industry that is relevant to the worker's job capabilities.

3.3.5 Logistics Customs Clearance Procedure in Yangon

Documentation such as packing lists, commercial invoices, and certifications of origin are required for customs clearance. Bills of lading, import/export declarations, permits, and licenses, as well as insurance certificates, may also be required. Based on current laws and regulations, the seriousness of non-compliance, and other factors, customs authorities may take different steps in the absence of the necessary paperwork. They have

the authority to demand more details, refuse delivery, confiscate the products, or apply penalties and fines. Customs officers may require further information, which could cause delays and additional expenses like demurrage and storage fees. The implications of the customs authorities rejecting the shipment might range from higher reshipping costs and financial loss to supply chain disruptions and harm to relationships with suppliers, customers, and other stakeholders. Last but not least, importers who neglect to provide the required paperwork may be subject to legal ramifications, including the cancellation of export/import permits, further fines, and even criminal prosecution.

The customs clearance process in Myanmar lacks automation and modernity, and it is bureaucratic and slow. This may cause the clearance procedure to drag out, raising expenses and possibly upsetting the supply chain. Moreover, the absence of well-defined and uniform policies could complicate the customs clearance procedure for freight forwarders. A lack of infrastructure, a labor shortage, language problems, and restricted access to resources—such as warehousing and cargo handling equipment—can all contribute to the lengthy and difficult process of clearing customs.

The efficiency of transporting trade cargo is low, resulting in lengthy cargo stay periods at ports and cross-border locations and elevated transport expenses. When awaiting cargo clearance, shipments often stay at ports for seven days on average. Despite its introduction, the electronic system for clearing customs has not yet reached complete functionality. Because the mechanisms for bonded warehouses and bonded transportation are still in the early stages of development, the port must handle the customs clearance process. Significantly less port cargo handling capacity is available due to delays in cargo clearance.

The customs teams at the ports used to switch shifts once every six or three months. Customs groups' duty shifts are no longer regular, and occasionally they alternate every two weeks. Previously, the Deputy Director's approval was only required for difficult files to receive tax exemption (Common Effective Preferential Tariff, or CEPT). However, as of right now, all files must be given to the Deputy Director for the Deputy Director's determinations. As a result, both the customs procedure and the cargo pickup from ports take longer.

The importer (consignee) requests for a container cargo inspection at the CFS (Port) customs at the terminal when they remove an import container from the terminal. They

must provide the necessary paperwork, including permission from the customs head office. Following a review of the documentation, CFS (Port) customs advises the importer on the appropriate inspection protocols. Within the procedures, there are three categories:

Green Category: Only document assessment is required for clearance of container shipments; no further inspections or examinations are required.

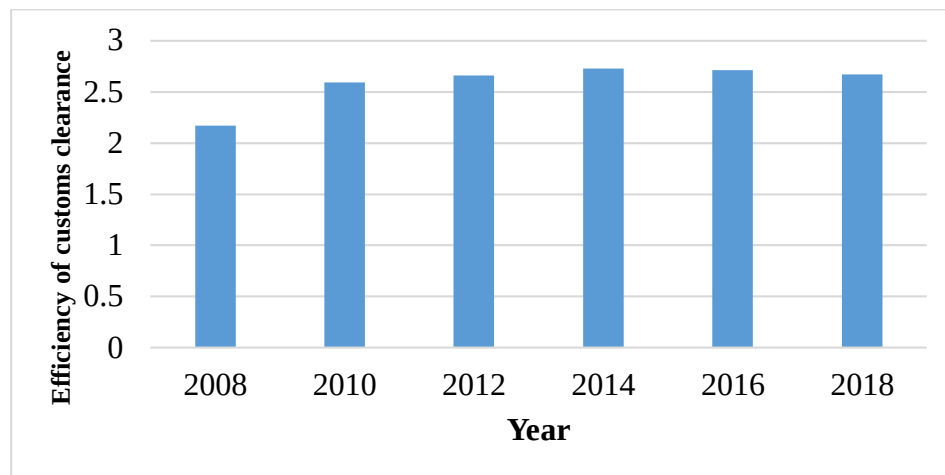
Yellow Category: X-ray inspections are required for container goods. (approved by X-ray inspection and document evaluation)

Red Category: Cargo containers must pass a physical inspection at the CFS (both a document review and a physical inspection are required). After completing the steps in each category, the importer can go on to the next phase.

The MACCS system states that although most commodities designated for the green channel were previously prohibited from being opened, customs inspectors now unpack the containers at the port because they are deemed suspicious. The customs clearance process is used to postpone the release of materials in the event that a customs officer is unable to attend a meeting at the ports. A deputy director must sign off on cargo files and cases before the director can make a decision. As a result, the port experiences cargo delay. Additionally, because they work fewer hours, customs agents are unable to check the shipment in a timely manner. There are occasions when the shipment cannot progress or be postponed because the customs file cannot be submitted after 2:00 pm.

The import commodities undergo a meticulous examination of the cargo value. If the officers reject the items' listed value on the invoice. It takes almost two weeks to remove the cargo from the imported shipment, although it used to take only three or four days. The import shipment must apply to the valuation department. Furthermore, because there are not enough valuation officials to review forms, the CEPT (tax exemption) form processing period takes close to a week to complete. Even when e-documents are submitted, the original document must be sent. There are instances where the official publications in the newspaper differ from the actual actions taking place. Though officially immune from customs fees, products that arrive within 7 days of the import license expiration date are really subject to fines until they are seized or released. Figure (3.3) shows the effectiveness of Myanmar's customs clearance procedure from 2008 to 2018.

Figure (3.3) Efficiency of Customs Clearance Process of Myanmar from 2008 to 2018



Source: World Bank, 2023

Service time is a useful metric for measuring the effectiveness of the customs clearance process, which assesses the ease and speed of customs service procedures for both import and export. The World Bank provided the scale of the customs clearance process's efficiency (1 being low and 5 being high). Data indicate that, up until 2014, Myanmar's customs clearance efficiency increased yearly, as seen in Figure (3.3). The customs clearance process did, however, experience a little decline in efficiency, with 2.67 in 2018 and 2.71 in 2016. That being said, the customs clearance procedure was not inept. Imports and exports both increased as a result of greater foreign investment and the election of a new democratic government. The customs clearance process lost efficiency as a result of its inability to handle the higher volumes. Services for import logistics assist businesses in controlling their global supply chain. They have a number of systems installed to set up procedures like transloading and handle all the little aspects. The majority of logistics firms in Yangon offer import, warehouse, and transportation services. A few businesses provide clients with distribution services.

With our knowledge and skills, import logistics services handle project cargo, which includes high lift, bulky, lengthy, and hazardous freight to a port or project site. They distribute all kinds of heavy lift and big freight to intricate projects like manufacturing, petrochemicals, power plants, engineering, building, and so on. From storage to delivery, certain import logistics service providers offer a whole range of services. The warehouse facility guarantees the security of the cargoes of its customers while storing them and provides domestic distribution.

Supply chain and logistics management are becoming more and more important for businesses to remain competitive as the industry changes quickly. For international product flow, import logistics services offer a single point of contact for information control and logistical management. The goal of import logistics services is to integrate vendor and document management, information flow and visibility, physical freight transportation, and the entire logistics process. They provide a variety of solutions to satisfy the various demands of clients along the whole supply chain. Customers can select from a variety of service alternatives to meet their supply chain requirements. This gives you the flexibility to optimize the various supply chain components in response to changing environmental conditions and dynamic needs.

Obtaining an import/export license is a prerequisite for cargo arrival or departure in Myanmar. Non-licensed things and licensed items are the two categories of licensing. Thus, there is no issue if cargo is included in unlicensed. However, obtaining an import license is necessary before shipping any cargo that contains licensed commodities. Before clients place an order with suppliers, logistics service providers can verify whether types of cargo require a license. Besides applying for a regular license. Importers must apply to the Myanmar Investment Commission (MIC) for a different kind of license. This is for investment firms that make investments in Myanmar. Additionally, there are challenging processes for investment firms. Here in Myanmar, logistics service providers are now operating and requesting for MIC licenses and tax exemptions on behalf of numerous investment enterprises. The employees of such service providers have extensive training and expertise in this area.

When it comes to end-to-end deliveries, logistics service providers provide their clients complete service packages. Additionally, logistics service providers offer high-quality one-stop trucking and customs clearance services that satisfy client needs, as well as guaranteed feeder sailings for imported cargo from all nations to Myanmar. Custom brokers also handle fiscal representation, product classification, customs declaration and clearance, and customs status reporting. They provide skilled teams for clearing customs that help consumers through the process and take care of any issues to prevent paying extra fees. Their comprehensive knowledge of all local legal and regulatory matters enables them to help clients obtain greater cost-effectiveness in customs-related processes.

CHAPTER IV

SURVEY ANALYSIS

This chapter presents the survey profile, survey design, and socio-demographic characteristics of the respondents. Additionally, it presents the descriptive analysis results of factors on challenges that logistics service providers face in sea import industry.

4.1 Survey Profile

The study focuses only on sea import challenges of logistics service providers in Yangon Region. Yangon Port is the premier port of Myanmar and handles more than 90 percent of the country's normal exports and imports. Currently, the most common ports for import shipments are MITT, MIP and AWPT. In this study, three ports mentioned above are mainly focused. Therefore, the findings of the study cannot be generalized to other logistics service areas such as air freight, and border trades. Primary data are collected by simple random sampling method from logistics service providers registered at DICA. Field study period is from June 2024 to July 2024.

4.2 Survey Design

Choosing a strategy for participant selection and establishing the size and type of sample are important aspects of survey design. Design work resulted in the development of a questionnaire with well-crafted questions that will produce accurate and valuable data. We made sure the questionnaires were easy to read, succinct, and straightforward. It was also utilized with suitable question forms, including multiple-choice or Likert scale questions, to cover all pertinent themes. Primary data is gathered via a structured questionnaire that uses a 5-point Likert scale: 1 for strongly disagree, 2 for disagree, 3 for neutral, 4 for agree, and 5 for strongly agree. This study employed a questionnaire with three main elements. Part A of the structured questionnaire consists of the respondents' socio-demographic characteristics, and Part B is about the logistics service provider's perceptions of the issues they face.

The questions on the respondents' backgrounds from their jobs at logistics service companies are in the first section. It specifically addresses the respondents' sex, marital status, age, level of education, employment history, role, and type of services. The second section uses 5-point Likert scales to identify the challenges facing Yangon's sea logistics

industry, including structural bottlenecks, a lack of effective technical systems, a lack of government support policies, a shortage of skilled labor, logistics custom clearance, and difficulties facing logistics service providers. After then, 25 logistics service providers participated in a pilot testing project. The pre-test findings informed the revisions and modifications made to the questions. Translating the survey questions into Myanmar yields more accurate data while keeping the questions clear and easy.

Out of the 743 logistics service providers in Yangon, the study focused on 260 logistics service providers specifically for maritime ports. This study used descriptive analysis. We compute the frequency and percentage based on the respondents' background data. The 5-point Likert scale questions have mean values, standard deviation, and overall mean computed.

The 5-point Likert scale is easy to use and comprehend for both survey administrators and participants. A worldwide tool for evaluating opinions and attitudes is the 5-point Likert scale. As a result, this study clearly highlights the difficulties that the logistics service sector in Yangon faces in offering customer service.

4.3 Survey Result

This section presents the findings from the primary data collected from 260 logistics service providers. Firstly, demographic characteristics of the respondents are presented. Secondly, respondent perceptions towards infrastructural bottlenecks, lack of efficient technical system, lack of government support policies, shortage of skilled workforce, and logistic custom clearance are examined. Finally, challenges of logistics service providers are addressed.

4.3.1 Demographic Characteristics of the Respondents

The demographic profile is important in research because it provides valuable information about the characteristics of a specific population or group. This section presents the demographic data of 260 respondents. Demographic characteristics include gender, marital status, age, education, work experience, job position, and kind of services. Table (4.1) presents the demographic data of the respondents who filled the questionnaire by descriptive statistics such as frequency and percentage.

Table (4.1) Demographic Characteristics of the Respondents

Sr. No.	Item	Category	No. of Respondents	Percent
1	Gender	Male	150	57.7
		Female	110	42.3
2	Marital Status	Single	152	58.5
		Married	108	41.5
3	Age (Years)	18 – 20	1	.4
		21-30	90	34.6
		31-40	98	37.7
		41-50	66	25.4
		above 50	5	1.9
4	Education Background	Undergraduate	6	2.3
		Graduate	162	62.3
		Post Graduate	33	12.7
		Master	53	20.4
		Others	6	2.3
5	Working Experience	Less than 1year	29	11.2
		1-2 years	18	6.9
		3-4years	35	13.5
		5-6 years	38	14.6
		7-8years	31	11.9
		Above 8 years	109	41.9
6	Job Position	Executive	78	30.0
		Manager	73	28.1
		General Manager	15	5.8
		MD	14	5.4
		Other	80	30.8
	Total		260	100

Source: Survey Data, 2024

Table (4.1) shows that 110 respondents (42.3%) are female and 150 respondents (57.7%) are male. Fifty-two of the 260 respondents are single, and the rest respondents are

married. Of the respondents, 98 (37.7%) are between the ages of 31 and 40, 90 (34.6%) are between the ages of 21 and 30, 66 (25.4%) are between the ages of 41 and 50, and 5 (1.9%) are over the age of 50. There is only one respondent that is in the 18–20 age range. Regarding the respondents' educational background, 162 (62.3%) of them are graduates. 53 respondents (20.4%) have master's degrees, 33 have postgraduate degrees (12.7%), and the majority of respondents are high school students and undergraduates. In terms of work experience, 109 respondents (41.9% of the total) have more than eight years' worth, followed by 38 respondents (14.6% of the total) with five to six years' worth, 35 respondents (13.5% of the total) with three to four years' worth, and 31 respondents (11.9% of the total) with seven to eight years' worth.

A minority of the respondents, comprising 11.2%, had worked for a logistics company for less than a year, while the remaining respondents had worked there for one to two years. In terms of employment, 78 respondents (30.0% of the respondents) are executives, 73 respondents (28.1% of the respondents) are managers, and 80 respondents (30.8% of the respondents) are operating personnel. A minority of the respondents—15, or 5.8% of the total—are managing directors, whereas the majority of respondents are general managers.

In conclusion, men who are single are more likely to pursue careers in logistics. Ages 31 to 40 make up the majority of the workers in this industry. Those with graduate degrees made up the bulk of the responders. They have over eight years of experience working for logistics organizations. The majority of them have positions as customs clearance agents and operating officers.

4.3.2 Respondent Perceptions towards Challenges of Logistics Sea Import Industry

Factors that logistics service providers face in sea import industry are measured by infrastructure bottlenecks, lack of efficient technical system, lack of government support policies, shortage of skilled workforce, and logistics custom clearance. Logistics service providers handle all transportation requirements, from origin through delivery to final clients. Some logistic service providers offer one-stop service including applying import license and permits. In order to fulfil the needs of the importers, logistic service providers sometimes face challenges.

(a) Infrastructural Bottlenecks

Logistics is considered the backbone of the economy. Infrastructure is vital in logistics industry. Table (4.2) presents the infrastructural bottlenecks in Sea Import Industry in Yangon by collecting data from 260 respondents who are working in logistics industry.

Table (4.2) Respondents' Perceptions for Infrastructural Bottlenecks

Sr. No.	Description	Mean Score	Std. Dev
1.	There are insufficient cranes and container lifts at the ports in peak season	3.85	0.64
2.	There are inadequate warehouse systems.	3.69	0.74
3.	There are physical transportation restrictions such as bridge or roads.	4.15	0.53
4.	Electric shortage causes delays.	3.97	0.81
5.	There are only few X-ray inspection machines at the ports.	3.86	0.69
6.	There are insufficient container trucks for import shipments.	4.08	0.65
7.	Electric is not always available at ports.	3.55	0.94
8.	DG (Dangerous Goods) yard in some ports cannot operate very well in rainy season	3.90	0.70
9.	There are insufficient loading bay in ports for inspection	3.95	0.74
Overall Mean		3.89	

Source: Survey Data, 2024

The downtown area has been designated as a no-entry area, and there are areas that are only open at night. These physical transportation constraints, such as bridges and highways, are shown by the findings displayed in Table (4.2). Only at night and in the evening can container cars enter certain places if goods needs to be delivered there. The export vehicles' inability to discharge the goods on schedule and the blocked concrete road, which serves as the container route, contribute to the shortage of container trucks for import shipments. In addition, respondents reported experiencing delays as a result of an electric shortage. It implies that there is an electric deficit, which has a significant impact on the operational efficiency of shipping lines and logistical service providers. In a similar vein, EPC electricity is not available 24/7 at MITT, MIP, and AWPT ports. The public load chart plan is followed for supplying power, according to the Ministry of power and Energy (MOEE). Ports use a generator for the reefer containers in the event of a power loss. Port fees are therefore more costly. The respondents concur that the single X-ray machine used

at the ports to inspect import cargo is insufficient. Logistic service providers encounter numerous challenges when it comes to X-ray inspections during peak season.

Respondents also encounter difficulties since certain ports' DG yards are not able to function optimally during the wet season. Thus, just the DG yard is required for the check-out of DG goods. It is challenging to move the goods to the DG yard for inspection during periods of intense rain. The overall mean of 3.89 indicates that there are infrastructure constraints in the marine import logistics sector of Myanmar, indicating the need for changes.

(b) Lack of Efficient Technical System

Technologies allow ports to operate more efficiently and improve their capacity to manage large volumes of cargo. Table (4.3) presents the descriptive analysis of efficient technical system at Yangon ports by collecting data from 260 respondents who are working at logistics service companies.

Table (4.3) Respondents' Perceptions for Efficient Technical System

Sr. No.	Description	Mean Score	Std. Dev
1.	GPS technology is not widely used in trucks.	4.08	0.62
2.	Difficult to find exact container location at the ports.	3.60	0.84
3.	Tracking of shipments and cargos are available at only some shipping lines.	3.73	0.69
4.	Lack of logistics integration between stakeholders such as shipping lines, customs, government offices etc.	4.08	0.67
5.	Manual custom clearance is required for imports including more than 100 items.	3.63	0.84
6.	Sometimes, CFS code is not available on time for LCL cargo.	3.72	0.74
	Overall Mean	3.81	

Source: Survey Data, 2024

As can be seen in Table (4.3), the results demonstrate that container trucks do not generally employ GPS technology because truck service companies do not equip all of their trucks with GPS, and thus are unable to track the location of their trucks when they are moving or stopped. As a result, logistics service providers are unable to provide cargo information in real time. The absence of logistics integration amongst various players, including customs, government agencies, and shipping lines, is another finding. It implies that the various stakeholders—shipping lines, ports, and logistics service providers—do not

systematically integrate. Furthermore, the respondents indicate that only a limited number of shipping lines offer cargo and shipment tracking services.

This is because certain shipping lines have websites that allow customers to track containers online, while other lines do not provide this kind of facility for importers or freight forwarding services. Therefore, in order to find out the vessel's ETA (Estimated Time Arrival), logistic service providers must repeatedly get in touch with shipping lines. Since manual customs clearance is necessary for imports containing more than 100 items, logistic service providers have challenges when handling cargos containing more than 100 items. The aggregate mean value of 3.81 indicates that Yangon's maritime import logistics sector lacks an effective technical system.

(c) Lack of Government Support Policies

The Government of Myanmar adopted several initiatives, policies and reforms in the logistics service industry in Yangon. Table (4.4) presents the descriptive analysis of government support policies in sea import industry.

Table (4.4) Respondents' Perceptions for Government Support Policies

Sr. No.	Description	Mean Score	Std. Dev
1.	Government import policies are always changing.	4.48	0.61
2.	Importers have to apply many licenses because of amount limitation per license.	4.31	0.72
3.	Import regulations are very strict.	4.27	0.66
4.	It is difficult to get import license on time.	4.58	0.63
5.	Only import license will be obtained that can provide the export earnings.	4.02	0.89
6.	Export earnings are only allow for exporter who will use their importation process.	3.82	0.77
7.	Export earnings are not allow to use for imports who didn't export	3.67	0.92
8.	Without export earnings, importers are waiting too long to obtain import license.	4.21	0.86
9.	There are a lot of additional paperwork.	4.08	0.63
10.	Detention/demurrage are charged because bonded warehouse approval is late.	4.01	0.71
Overall Mean		4.15	

Source: Survey Data, 2024

Logistics service providers concur that it is challenging to obtain import licenses on time and that importers face difficulties in securing licenses due to the Ministry of Commerce's strict import regulations, which only allow licenses for about 10% of imported goods, as shown in Table (4.4). Additionally, since the government of Myanmar controls the flow of foreign currencies, import policies are constantly subject to change. In order to encourage exports and address the issue of the trade deficit, imports are also permitted in relation to export earnings.

Through banking laws and the compulsory conversion of USD to MMK, the government are meddling in the market. In addition, import laws are extremely stringent in Myanmar in an effort to curb outflows of foreign currency (because reserves are purportedly running short) and stop the kyat from further weakening. Due to the government of Myanmar's \$50,000 maximum CIF value per import license, importers must get multiple import licenses for a single shipment, depending on the shipment's value. It forces importers to receive all licenses on schedule.

Importers are unable to get import licenses in the absence of an adequate quantity of export revenues. Recent laws state that importers have difficulty obtaining an import license if they do not have export earnings. It's evident from the overall mean score of 4.15 that the logistics business needs more support from government laws and regulations.

(d) Shortage of Skilled Workforce

The ongoing shortage of skilled workers is posing major challenges to companies worldwide, affecting a variety of industries. Table (4.5) states the descriptive analysis of shortage of skilled workers in logistics industry in Yangon.

Table (4.5) Respondents' Perceptions for Shortage of Skilled Workforce

Sr. No.	Description	Mean Score	Std. Dev
1.	Skillful port labours are not enough.	3.97	0.52
2.	Freight forwarders and logistics are difficult in recruiting skillful employees.	3.92	0.64
3.	Workers are requiring an up-skilling of employees to keep pace with new technology.	4.20	0.52
4.	Some employees are lack of knowledge of government regulations and access to improved technology systems in order to ensure compliance.	4.07	0.58
Overall Mean		4.04	

Source: Survey Data, 2024

The results, which are displayed in Table (4.5), demonstrate that workers must upgrade their skills to stay up to date with emerging technologies because the labor shortage has been exacerbated by the complexity and global reach of contemporary supply chains. The demand for people with the ability to handle global logistics and negotiate the challenges of trade has increased. Logistics companies are required to follow the SOPs issued by the government so that the employees can comply with the changed government rules / regulations. However, the findings also show that some employees lack knowledge of government regulations and access to better technology systems in order to ensure compliance.

It is possible that some MACCS users don't know everything there is to know about MACCS. Additionally, logistic service providers believe that there is a shortage of skilled port laborers since there are occasionally not enough crane forklift drivers at the port. Because there aren't enough people, loading and unloading takes a very lengthy time. Additionally, it is challenging for freight forwarders and logistics companies to find qualified workers given the decline in the value of the Myanmar currency, the rise in local costs since 2021, and the rise in the number of persons seeking employment abroad in order to earn higher pay. Owing to the current political climate, many workers, primarily men between the ages of 20 and 35, have resigned their jobs and moved abroad. It is therefore challenging to locate new employees to take their place. The overall mean score of 4.04 indicates that there is a labor shortage in the maritime import logistics sector.

(e) Logistic Custom Clearance

Customs clearance involves the process of clearing goods through customs authorities to facilitate their entry into a country or region. This process is essential for ensuring compliance with import and export regulations and tariff requirements imposed by governing authorities. Table (4.6) states the descriptive analysis of logistics custom clearance.

Table (4.6) Respondents' Perceptions for Custom Clearance

Sr. No.	Description	Mean Score	Std. Dev
1.	Sometimes, custom officers are not present at the office.	4.26	0.68
2.	There are not enough custom officers at the ports.	3.97	0.74
3.	Custom clearance process sometimes delays cargos.	4.24	0.65
4.	It is difficult to predict custom charges and procedures.	4.11	0.69
5.	It takes a lot of time for tax exemption processing.	3.87	0.78
	Overall Mean	4.09	

Source: Survey Data, 2024

The results reveal that there are instances when customs officers are not in the office, as Table (4.6) illustrates. The delivery of materials is delayed if a customs officer is absent from a meeting at the ports and cannot be replaced. Furthermore, without the deputy director's input, the director cannot decide on a case, and signing shipment files and cases requires waiting for the deputy director to arrive, which delays the removal of products. Additionally, because customs officers are working fewer hours, they are unable to check the cargo in a timely manner. There are occasions when the shipment cannot progress or be postponed because the customs file cannot be submitted after 2:00 pm. According to logistic service providers, shipment delays might occur throughout the customs clearance process. The customs clearance process in Myanmar lacks automation and modernity, and it is bureaucratic and slow. This may cause the clearance procedure to drag out, raising expenses and possibly upsetting the supply chain. Furthermore, the customs clearance process may be more challenging for service providers to manage due to a lack of uniform and clear laws. Furthermore, respondents report having trouble anticipating customs fees and processes. Because of this, logistics service providers are unable to determine the complete cost of a shipment before it leaves the port.

Occasionally, importers prefer to know the precise quantity before using logistics service providers. Results show that processing tax exemptions takes a long time and that there are not enough customs officials at the ports. Due to a lack of officers to review forms, the CEPT (tax exemption) form processing period takes about a week to complete. Even when e-documents are submitted, the original document must be sent. Overall mean score of 4.09 indicates that respondents agree that the process of clearing customs to remove cargo from the port is not seamless.

4.3.3 Challenges of Logistics Service Providers

Logistics Service Providers (LSPs) are facing a rapidly changing industry. Increasing customer demands, expanding global supply chains, fleet and capacity restrictions, and high fixed and variable costs all impact on organization's success. Table (4.7) states the descriptive analysis of the challenges of logistics service providers.

Table (4.7) Respondents' Perceptions for Challenges

Sr. No.	Description	Mean Score	Std. Dev
1.	Custom clearance process is challenging for logistics service providers.	3.95	0.63
2.	Logistic services providers find lack of infrastructure as a challenge.	3.68	0.81
3.	There is a lack of advanced technology in logistics industry.	4.08	0.60
4.	Skilled labor shortage is a challenge for service providers.	4.07	0.63
5.	Service providers face lack of equipment at the ports.	3.95	0.74
6.	Ever changing government policies and procedures make service providers difficult.	4.45	0.62
	Overall Mean	4.03	

Source: Survey Data, 2024

The results, as presented in Table (4.7), demonstrate that logistics service providers confront numerous difficulties because of the constantly shifting laws and regulations. Import licenses are now required for commodity lines that did not previously require them for seaborne trade. Myanmar exporters and importers have struggled to sustain consistent trade flows as a result of the country's frequent changes in trade policies and the wide disparity between the market exchange rate and the CBM reference exchange rate. Furthermore, research shows that the logistics sector lacks sophisticated technologies. Not

all inventory management and electronic data interchange (EDI) systems are up to date and connected, and not all warehousing and container management procedures remain effective. Additionally, the logistics industry lacks skilled workers, which makes it difficult to find and keep qualified employees.

Logistics service companies face difficulties in the customs clearance process. There exist scenarios such as the official publications in the stated papers and the real-world actions. Though officially immune from customs fees, products that arrive within 7 days of the import license expiration date are really subject to fines until they are seized or released. In addition, the absence of infrastructure is a problem for logistics service providers. At the downtown port, there is not enough equipment, such as a container crane or forklift, during peak season. All of the equipment is not operating, even though it is not the busiest time of year, for maintenance and other reasons. As a result, the business starts late and has little equipment. The aggregate mean score of 4.03 indicates that logistics service providers face numerous difficulties in delivering customers' goods from Yangon ports efficiently and within budget.

CHAPTER V

CONCLUSION

This chapter offers the conclusions drawn from the original source material. Then, based on the survey findings, comments and proposals are made to identify the difficulties facing Yangon's maritime logistics sector and enhance the effectiveness of logistics services.

5.1 Findings

There are more male respondents than female respondents when it comes to the respondents' demographic information. Respondents who are single outnumber those who are married. The age range of the majority of responders is between 31 and 40, then 21 and 30. Consequently, it is clear that study participants over 30 years old have a greater interest in the logistics sector than do younger participants. The bulk of responders have graduate degrees, followed by master's and postgraduate degrees in terms of education. High school students and undergraduates make up a minority of the responders. Additionally, it is discovered that the majority of respondents have more than eight years of work experience, followed by those with five to six years, and a small minority have one to two years of experience. In terms of occupation, the majority of responders are operation staff members, followed by managers, general managers, and executives. Managing directors make up the minority of responders.

There are physical transportation constraints, such as restricted access to downtown areas and a shortage of container trucks for import cargoes, which contribute to the infrastructural bottlenecks in the sea import industry. Furthermore, DG yards find it difficult to run efficiently after heavy rains and have operational delays due to power outages. When taken as a whole, these problems make Myanmar's marine import logistics sector less effective.

There are a lot of technological issues facing Yangon's maritime import logistics business. Real-time cargo tracking is not possible in container trucks due to the limited usage of GPS technology. Additionally, there is a deficiency in the integration of logistics between government agencies, shipping lines, and customs. Forwarding agencies must constantly follow up with shipping lines to obtain ETA updates because just a few shipping

lines provide online container tracking. These problems draw attention to how ineffective the current technology systems are.

In terms of government regulations, the logistics sector in Myanmar faces substantial obstacles. With strict laws permitting permits for just around 10% of imported items, obtaining import licenses is challenging and time-consuming. The process becomes even more complex due to regular modifications to import policies and market actions like forced currency conversions. The goal of strict import laws is to stop currency depreciation and minimize outflows of foreign money. Long wait times result from importers needing to achieve export earnings criteria in order to receive permits. All things considered, these laws and regulations are not enough to adequately assist the logistics sector.

Employees in the skilled sector require upskilling in order to handle intricate supply chains and stay up to date with new technologies. Issues with compliance arise from a lack of understanding of government legislation and technological systems. Furthermore, there are shortages of competent port workers, such as crane and forklift operators, which prolongs loading and unloading times. Because of the political and economic climate, it is difficult to find qualified personnel because many are moving abroad in search of better possibilities. The logistics industry is less productive as a result of the skilled labor shortage.

The lack of customs officers at crucial periods, delays brought on by hierarchical decision-making, and constrained working hours all relate to logistics custom clearance. In addition to increasing prices and causing supply chain disruptions, the procedure is cumbersome, bureaucratic, and lacks automation and clear regulations. Customs fees are hard to predict, and there aren't enough officers to process tax exemptions effectively. All of these problems make it more difficult for cargo to exit the port smoothly.

Concerning the difficulties faced by logistics service providers, there are many. Trade flows are disrupted by government policies and procedures that are constantly changing, such as new import licensing requirements and fluctuating exchange values. The sector uses antiquated Electronic Data Interchange (EDI) and ineffective warehousing procedures in addition to a lack of sophisticated technologies. Additionally, a lack of skilled labor makes hiring and retaining employees more difficult. The process of clearing customs is erratic and delayed, with differences between stated procedures and real policies. Inadequate equipment and infrastructure also contribute to operational delays, particularly during busy times. All of these problems impede the efficient and economical handling of cargo at Yangon ports.

5.2 Suggestions

Several suggestions can lessen the difficulties faced by logistics service providers in light of survey results. Improving import regulations is essential. This includes putting in place an automated import licensing system and creating long-term import regulations based on domestic demand. It should be taken into consideration to grant import licenses without compensation for necessities such as medications. It is advisable to work with industry associations to revise regulations and to hold workshops to inform importers about licensing requirements and procedures. Logistics providers can immediately adjust by increasing openness by routinely updating and communicating changes in import policies. Additionally advised are connections with government organizations for advice and assistance, as well as training on new rule compliance. By creating strong frameworks for compliance, logistics companies may better handle complicated import regulations and guarantee compliance with import/export laws and standards.

When it comes to logistic custom clearance, logistics providers should schedule meetings to avoid busy times, and the customs head office should set up backup teams for officers who attend. Developing a responsive system in partnership with customs authorities can improve efficiency. In order to minimize approval waiting times, logistics providers should make sure all paperwork is finished before items arrive. They could also promote automated technologies and scanners to expedite inspections. Another way to cut down on delays is to train importers on proper documentation. By taking these steps, efficiency will increase and cargo dwell time will decrease.

One of the biggest issues facing logistics service providers is a lack of skilled labor. To solve this issue, it is essential to upskill port workers through extensive training programs that place a strong emphasis on cutting-edge technologies like automation and artificial intelligence. Providing chances for on-the-job training can encourage lifelong learning and flexibility. Educating staff members on compliance and regulatory developments will also improve their awareness and readiness. Investing in logistics management software to automate compliance procedures can enhance reporting and documentation accuracy and efficiency even more. These steps will contribute to the retention of a workforce with the necessary skills to satisfy the constantly changing needs of the logistics sector.

The government should make investments in enlarging and enhancing road infrastructure in order to lessen infrastructure bottlenecks in Yangon's marine import sector. Logistics companies should work with local government agencies to comprehend

limitations and obtain permits for access during the day. Using mapping software and GPS to optimize routes can assist avoid physical constraints. Improved scheduling systems at ports and incentives for more trucking businesses to participate can help solve the shortage of container trucks and cut down on delays.

It is advised to use sophisticated GPS tracking with battery-operated devices for continuous container tracking and to outfit trucks with GPS systems for regular updates in order to create an effective technological system. Adopting complete system integration solutions is necessary to link government agencies, shipping lines, and customs. Technologies for fleet management, ERP system integration, and real-time tracking can boost productivity, cut expenses, and simplify procedures in logistics operations.

Due to time and resource constraints, the study only addresses the difficulties that logistics service providers in the Yangon Region have when handling sea imports. Consequently, it is recommended that further research be done on examining larger sample sizes of additional maritime logistics service providers in various areas. This will enable more reliable and extensive generalization of the results.

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APPENDIX A

QUESTIONNAIRE SURVEY

Dear Sir/Madam,

The purpose of this questionnaire is to collect data for the research titled “**A Study on Sea Import Challenges of Logistics Service Providers in Yangon Region**” as part of my academic research study for the MPA at YUE. I appreciate your value and time in responding to the questions and assure you of confidentiality and privacy.

Yours Sincerely,

May Thu Thu Khine

Section A. Demographic Data

1. Gender

☐ Male

☐ Female

2. Marital Status

☐ Single

☐ Married

3. Age (Years)

☐ 18 – 20

☐ 21-30

☐ 31-40

☐ 41-50

☐ above 50

4. Education Background

☐ Undergraduate

☐ Graduate

☐ Post Graduate

☐ Master

☐ Others.....

5. How long have you been working at logistic industry?

☐ Less than 1year

☐ 1-2 years

☐ 3-4 years

☐ 5-6 years

☐ 7-8 years

☐ Above 8 years

6. Job Position

☐ Executive

☐ Manager

☐ General Manager

☐ MD ☐ Other.....

7. Which services do you give as logistics service provider?

(Can choose more than 1 option)

☐ Clearance ☐ Import License ☐ One-Stop Service
☐ Transportation ☐ Other.....

8. Working Industry

☐ Manufacturing ☐ Construction ☐ Pharmacy
☐ Trading ☐ Other.....

In sections B, kindly respond to the questions provided. Evaluate the following statements by selecting the most suitable box for each question. Your ratings are crucial in understanding the effects being studied.

1 = Strongly Disagree, 2 = Disagree, 3 = Neutral, 4 = Agree, 5 = Strongly Agree

Infrastructural Bottlenecks

No.	Particular	1	2	3	4	5
1.	There are insufficient cranes and container lifts at the ports in peak season					
2.	There are inadequate warehouse systems.					
3.	There are physical transportation restrictions such as bridge or roads.					
4.	Electric shortage causes delays.					
5	There are only few X-ray inspection machines at the ports.					
6	There are insufficient container trucks for import shipments.					
7	Electric is not always available at ports.					
8	DG yard in some ports cannot operate very well in rainy reason					
9	There are insufficient loading bay in ports for inspection					

Lack of Efficient Technical System

No.	Particular	1	2	3	4	5
1.	GPS technology is not widely used in trucks.					

2.	Difficult to find exact container location at the ports.					
3.	Tracking of shipments and cargos are available at only some shipping lines.					
4.	Lack of logistics integration between stakeholders such as shipping lines, customs, government offices etc.					
5.	Manual custom clearance is required for imports including more than 100 items.					
6.	Sometimes, CFS code is not available on time for LCL cargo.					

Lack of Government Support Policies

No.	Particular	1	2	3	4	5
1.	Government import policies are always changing.					
2.	Importers have to apply many licenses because of amount limitation per license.					
3.	Import regulations are very strict.					
4.	It is difficult to get import license on time.					
5	Only import license will be obtained that can provide the export earnings.					
6	Export earnings are only allow for exporter who will use their importation process.					
7	Export earnings are not allow to use for imports who didn't export					
8	Without export earnings, importers are waiting too long to obtain import license.					
9	There are a lot of additional paperwork.					
10	Detention/ demurrage are charged because bonded warehouse approval is late.					

Shortage of Skilled Workforce

No.	Particular	1	2	3	4	5
1.	Skillful port labours are not enough.					
2.	Freight forwarders and logistics are difficult in recruiting skillful employees.					
3.	Workers are requiring an up-skilling of employees to keep pace with new technology.					
4.	Some employees are lack of knowledge of government regulations and access to improved technology systems in order to ensure compliance.					

Logistics Custom Clearance

No.	Particular	1	2	3	4	5
1.	Sometimes, custom officers are not present at the office.					
2.	There are not enough custom officers at the ports.					
3.	The practices of custom officers are different from port to port.					
4.	Custom clearance process sometimes delays cargos.					
5.	It is difficult to predict custom charges and procedures.					
6.	It takes a lot of time for tax exemption processing.					

Challenges of Logistics Service Providers

No.	Particular	1	2	3	4	5
1.	Custom clearance process is challenging for logistics service providers.					
2.	Logistics service providers find lack of infrastructure as a challenge.					
3.	There is a lack of advanced technology in logistics industry.					
4.	Skilled labor shortage is a challenge for service providers.					
5.	Service providers face lack of equipment at the ports.					
6.	Ever changing government policies and procedures make service providers difficult.					