



ADDIS ABABA UNIVERSITY
COLLEGE OF BUSINESS AND ECONOMICS
SCHOOL OF COMMERCE LOGISTICS AND SUPPLY CHAIN
DEPARTMENT UNIT

**ASSESSING THE PRACTICE, CHALLENGE AND PROSPECT OF MULTIMODAL
TRANSPORT OPERATION: IN THE CASE OF ETHIOPIAN SHIPPING AND
LOGISTICS SERVICE ENTERPRISE**

BY:

SAMUEL AMERGA TEKLEMARIAM

JUNE, 2024

ADDIS ABABA, ETHIOPIA

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**A THESIS PRESENTED TO ADDIS ABABA UNIVERSITY'S COLLEGE OF BUSINESS
AND ECONOMICS SCHOOL OF COMMERCE, COMPLETING THE DEGREE OF
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DECLARATION

I Samuel Amerga hereby declare to the senate of Addis Ababa University School of Commerce that the work which is being presented in this thesis entitled **“Assessing the Practices, Challenges, and Prospects of Multi-Modal Transport Operations: The Case of Ethiopian Shipping and Logistics Service Enterprise ”** with the help and encouragement of the research adviser is entirely original work of mine, that it hasn't been submitted, in whole or in part, by anybody else for a degree at any other university or institution, and that all references used in the thesis have been properly cited.

Samuel Amerga

Signature

Date

APPROVAL SHEET

This is to certify that the research thesis entitled “Assessing the Practices, Challenges, and Prospects of Multi-Modal Transport Operations: The Case of Ethiopian Shipping and Logistics Service Enterprise” accepted in partial fulfillment of the requirements for the award of the Degree of Master of Logistics and Supply Chain by the School of Commerce, carried out by Samuel Amerga under my supervision. The matter embodied in this thesis work has not been submitted earlier for the award of any degree or diploma.

Advisor: Matiwos Ensermu (PhD)

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Date _____

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LIST OF ABBREVIATIONS/ACRONYMS

- ATD:** Association of Djiboutian Transitters
- ECC:** Ethiopia Customs Commission
- EMA:** Ethiopia Maritime Authority
- ESL:** Ethiopia Shipping Lines
- ESLSE:** Ethiopia Shipping and Logistics Service Enterprise
- ICT:** Information and Communication Technology
- IMO** (International Maritime Organization)
- LLDCs:** Land locked developing countries
- LAPSSET:** Lamu Port-South Sudan-Ethiopia Transport
- MMT:** Multi-Modal Transport
- MoF:** Ministry of Finance
- MoU:** Memorandum of Understanding
- MTO:** Multimodal transport Operator
- SPSS:** Statistical Package for the Social Science
- UNCTAD:** United Nation Conference on Trade and Development
- WTO:** World Trade Organization

ABSTRACT

The study objective is to assess the practices, challenges, and future prospects of multimodal transport systems in Ethiopia, specifically focusing on the Ethiopian Shipping and Logistics Service Enterprise. The study utilized a descriptive research design. To ensure accuracy and reliability, we collected primary data through questionnaires, such as open interviews and surveys, and then triangulated secondary data using the ESLSE annual report and relevant websites. We used a non-probability sampling technique, specifically convenience sampling, to select respondents from the Modjo dry port multimodal operation unit and the ESL head office multimodal department. This respondent exclusively focuses on their primary duties within the multimodal transport system. In order to achieve this objective, The ESLSE, which has its head office in Addis Ababa (68 employees) and a branch office under ESLSE Multimodal Service in Modjo dry port (197) is the study's target population. Based on Yamane's formula sample size we were selected from 265 regular employees the researcher chose 160 participants to take part in the study. However, only 144 of these participants were able to successfully gather and submit the required data from 160 calculated sample size of the participant. According to the assessment with Google form survey questioner and SPSS software conclusions, and recommendations, there is prospect for the Ethiopian Shipping and Logistics Service Enterprise to increase the efficiency and profitability of the multimodal transportation system. The enterprise plans to achieve this objective by implementing a comprehensive digitalization and branding strategy, negotiating a bilateral port agreement with Kenya's Lamu and Somali land ports, expanding infrastructure development for ports, roads, and trains, and implementing a restructuring plan for enterprise services. On the other hand, the studies demonstrate that there is a significant challenge to effectiveness in the current practice of the multimodal transportation system. These include emerging privatization operators, a shortage of cargo trucks, poor infrastructure along Djibouti, frequent cargo theft and pilferage, customs clearance delays, and cargo transit security. Based on the research findings, the researcher recommends that the enterprise prioritize addressing the identified challenge and exploring the prospects. The enterprise should utilize the knowledge gained from this research to inform its decision-making and strategic planning.

Keywords: ESLSE, Dry Ports, and Multimodal Transport System.

CHAPTER ONE

INTRODUCTION:

The study's goal is to assess the current practice, challenge and prospects of multimodal transport operation in the context of the Ethiopian Shipping and Logistics Service Enterprise. The background of the study is presented in this section of the paper's introduction, the statement of the problem, the objective of the study, the significance of the study, the scope of the study, and the organization of the paper.

1.1. Background of the Study

The term "logistics" refers to the management of the transportation of items from the location where they were produced to the location where they are consumed that means movement of things from their point of origin to the site of consumption. This process takes into consideration a variety of aspects, including but not limited to the following: material handling, warehousing, packing, inventory management, and transportation. As a result, the purpose of logistics management is to give the highest possible level of service to consumers at the lowest possible cost. This implies that the mission of logistics management is to deliver service to customers in the most cost-effective manner possible. In light of this, numerous businesses around the world have implemented a variety of strategies for providing efficient service in order to meet the needs of their customers in an efficient and cost-effective manner while also developing a sustainable competitive advantage. Companies are putting these principles into reality in a variety of ways, including multimodal transportation (Demse, 2018).

All over the world, the transportation system is one of the key drivers in the freight distribution system. The multimodal transport services are being recognized for their dominant role in the globalized economy, and the operation will continue to affect the current international trade environment. Multimodal transport service commonly known as combined transport is the transportation of goods using at least two different means of transport from the point of receipt to the recipient's destination under a single contract. The carrier is legally liable for the entire carriage process, even though it is performed by several different modes of transport.

According to UNCTAD (2003), the notion of multimodal transport services encompasses the door-to-door movement of goods under the responsibility of a single transport operator. According to the information revealed by the ESLSE, Ethiopia as one of IMO (International Maritime Organization) members multimodal transportation system has been implemented since 2012 and currently near to 70 percent of imported cargoes is transported through multimodal transportation system (ESLSE, 2023).

A logistics component of the supply chain is responsible for the storage or transportation of completed goods or services to the final user, whether they are a producer, distributor, or consumer. Logistics is designed to ensure that products and services are delivered to consumers at a reasonable cost and on time. Whereas the supply chain has a broader scope than logistics, a supply chain is the network of all the individuals, organizations, resources, activities, and technology involved in the creation and sale of a product. Logistics is a critical and essential component of a successful supply chain. And supply chain management (SCM) is management of the flow of goods, data, and finances related to a product or service, from the procurement of raw materials to the delivery of the product at its destination.

According to UNCTAD (2011) the United Nations Conference on Trade and Development “International multimodal transport’ means the carriage of goods by at least two different modes of transport on the basis of a multimodal transport contract from a place in one country at which the goods are taken in charge by the multimodal transport operator to a place designated for delivery situated in a different country.” Multimodal transport operator’ means any person who on his own behalf or through another person acting on his behalf concludes a multimodal transport contract and who acts as a principal, not as an agent or on behalf of the consignor or of the carriers participating in the multimodal transport operations, and who assumes responsibility for the performance of the contract.”

Efficient and effective integrated transportation services with minimum transport costs are essential for modern international trade operations. Multimodal transportation plays a crucial role in achieving this goal. When it comes to this situation, shippers will gladly provide their goods at the most economical transportation cost. Ensuring timely delivery, consignees can have peace of mind knowing that their manufacturing centers will always have a steady supply of raw materials. This scheme incorporates an additional mode of transportation to offer multimodal

transport services through a single operator or service provider. Furthermore, the system simplifies the process by removing the need for multiple transport operators. By establishing a single transportation agreement with a multimodal transport operator, shippers can streamline their operations. This enables people to benefit from a convenient door-to-door cargo delivery service, rather than just port-to-port (Derkach & S. Pavliuk, 2017).

Multimodal transport refers to the door-to-door delivery of goods by multimodal transport operators utilizing a minimum of two modes of transportation under a single contract and set of paperwork. Compared to a unimodal transport system, this mode of transportation saves money on loading and unloading, transit, port delays for containers, warehousing, port fees, and freight delivery times. Ethiopia is far from international transit ports and lacks seaports, hence multimodal transportation is a more recent development. When moving cargo from the port to the inland dry port, the government encountered numerous difficulties.

To assess the key challenges and opportunities for multimodal transport system provision and operations in Ethiopia, especially at Modjo dry port, the MMTS could face difficulties during the import-export process, such as limited infrastructure, trucks, foreign currencies, high inland transportation costs, increasing container duration at dry port, and more. To clarify the issue, the study will examine the challenges and potential benefits of multimodal transport system provision and operations in Ethiopia at the dry port, which may result in further research. This study's findings may also help policymakers, multimodal transport planners, government officials, and NGOs address the issues. This research may face some limitations, like limited secondary data, the unwillingness of some respondents, the limitation of time, and budget constraints.

In Ethiopia, transportation infrastructure has been a focus of government investment in recent years. For example, the Ethiopian government has invested in the construction of new roads, railways, and airports to improve connectivity and facilitate trade. However, there are still challenges to be addressed, such as inadequate infrastructure, limited capacity, and inefficient transport operations, which the study on ESLSE aims to address. This leads to the dissatisfaction of customers who preferred to use a unimodal transport system, which was against the government policy in trying to reduce time and cost at the port.

1.1.1. The history of Ethiopian Logistics and Shipping Enterprise (ESLSE)

ESLSE (2023) In November 2011, Ethiopian Shipping & Logistics Services Enterprise changed its name from Ethiopian Shipping Lines S.C. to Ethiopian Shipping & Logistics Services Enterprise. In August 2016, a significant development took place in the Ethiopian shipping and logistics industry that strategic merger of four sea transportation companies i.e. Ethiopian Shipping Lines Share Company, Ethiopian Maritime and Transit Service Enterprise, Dry Port Enterprise, and Comet Transport Share Company experienced reorganization.

Ethiopian Shipping & Logistics Services Enterprise was founded before 60 years ago in 1956 E.C. based in Addis Ababa Ethiopia. On March 1, 1956, E.C, the former Ethiopian Shipping Lines Share Company (ESL) played a crucial role in building the merger with an initial capital of 50,000 birr. Here, Ethiopia's current marine transportation began. American Towrus Investment (51%), Commercial Bank of Ethiopia (51%), and the Ministry of Finance (49%) sponsored the shipping line. The sole domestic shipping company that competes with foreign carriers is Ethiopian Shipping Lines. Initially, three ships were constructed in Holland. The process began in 1966 with the first three ships, Queen Sheba, Lion of Judah, and Lalibela.

ESLSE received a mandate with the significant responsibility of more effectively and efficiently delivering sea-transport and logistics services to the country's importers, exporters, and investors in 2011 when the Council of Ministers released Regulation No. 255/2011. bringing together the previous three public companies that had been running independently in a maritime subsector that was somewhat comparable and interdependent. These companies were Comet Transport S.C., Maritime and Transit Services Enterprise, and Dry Port Enterprise, and in 2014, Ethiopian Shipping Lines S.C. moved into ESLSE. The four corporations above teamed up in 2004 E.C. to construct a marine transport and logistics infrastructure for the nation's rapid growth and favorable government policies. The initial and approved merger capital was 3.7 billion Birr. The Council of Ministers' plenary meeting increased capital from 3.7 billion to 20 billion Birr, recognizing the enterprise's potential and relevance.

Ethiopia has no seaport and is located far from neighboring ports used for cargo transit, so the country has only recently introduced multimodal transport. In this case, the delivery of goods from the port to the inland port caused many difficulties for the people. Therefore, it is necessary to assess the main procedures, encountered difficulties and future opportunities for the provision

and operation of Ethiopia's multimodal transport system. MMTS can face several difficulties in the import-export process, such as limited infrastructure, inconsistent trucks, low currency, expensive inland transportation, longer container waiting times at dry ports and many more.

In accordance with Federal Negrete Gazeta (2007) Multimodal Transport Operator" refers to any individual who enters a multimodal transport contract on his own behalf or through another individual acting on his behalf. This individual acts as a principal in the multimodal transport operations, not as an agent or on behalf of the consignor or carrier and is accountable for the contract's performance. Multimodal transport is the transportation of goods under a single contract by multimodal transport operators and by single documentation of at least two different means of transport from origin to destination, door-to-door service delivery (Alo, 2020). This type of transport system is used to reduce the cost of loading and unloading; transit costs; delay of the container at the port; reduce warehouse costs; reduce port fees and improve the timely delivery of freight between origin destinations, as compared with the unimodal transport system.

Multimodal transportation entails the utilization of a minimum of two distinct modes of transportation during a journey to facilitate the movement of goods from an origin point to a destination point. This can be air, sea, or rail freight, and it usually falls under a single contract with a single transport provider that handles the whole trip. Multimodal transport service commonly known as combined transport is the transportation of goods using at least two different means of transport from the point of receipt to the recipient's destination under a single contract.

Services provided by ESLSE's.

Services offered by the forwarding sector

The forwarding division imported and exported multimodal and unimodal goods. Transportation in several ways: A Door-to-door SAD cargo service. Djibouti, Modjo Dry Port and other inland ports accepted ESL cargo. Official Multimodal Operator (MTO) ESL is good for checked and ordered goods. Unimodal transit /Single-mode transit/ transport uses one mode of transport, such as water, rail, road or air transport. Services were between operators and agreements. When ESL's unimodal service stops in Djibouti, the consignee chooses a forwarder or carrier to receive the cargo inland. ESLSE takes care of port and customs formalities and ensures that the goods

arrive with consistent paperwork. ESL transported cargo from Djibouti to inland ports and back with modern large trucks. ESL originally had 60 heavy vehicles lifting 2,400 tons of dry cargo. The new owner, Comet Transport SC, operates 205 heavy trucks. The fleet of Enterprise grew to a total of 265 with Comet and ESL. From the beginning of June 2015, ESL and Comet ordered 215 heavy-duty Renault trucks. This would enable ESL 480 heavy Trucks. ESL subcontracts all direct or consolidated cargo delivery trucks from commercial and public transport companies (ESLSE, 2023).

Services Provided by Shipping Sector

Through the Gulf and Indian subcontinent, ESL's shipping division transported cargo from Djibouti Port to China, Korea, Japan, Singapore, South Africa, and Indonesia. Major worldwide carriers' own ships and slot charters allow uninterrupted marine traffic in and around the listed locations. Agency services: ESL's Shipping Sector branch office in Djibouti promptly notifies port officials and completes paperwork when its and other large ships dock. This provides ships and crew with supplies. Importers are warned and Djibouti port cargo is moved and retrieved faster. It transports many Ethiopian goods abroad. One of Djibouti's largest stevedores, ESL used revolutionary port equipment to load and unload import and export goods. The ESL unloads imported commodities from ships. Transport goods are packed. It promptly provides and retrieves empty containers from transporters. Shore handling: Djibouti Port carefully stores discharged items till delivery. ESL's Djibouti Branch successfully manages shore operations using CLTs, trucks, truck trailers, tractors, and forklifts of various sizes. ESL handled freight well. Direct container and bulk freight delivery was fast. Many gangs worked all day on three shifts.

Services Provided by Port & Terminal Sector

All imported goods must work properly and quickly. The final user should receive them at the proper moment. Dry ports safely store and handle import cargoes before delivering them to customers. Ethiopia's import destination and export consolidation point was the Port and Terminal Sector of the Enterprise. This sector was responsible for loading and unloading products, completing customs formalities, temporarily storing goods, stuffing and unpacking items, preparing goods for transportation, and shipping goods. Receiving and delivering cargo, loading and unloading, stuffing and un-stuffing container products, temporary storage for import

and export cargoes, container cleaning and maintenance, Weight Bridge, costume control, and clearance are all examples of services that are provided by ports and terminals. In addition to being an essential component of the logistics value chain, the company supports importers and exporters in expediting these services.

1.2. Statement of the Problem

Ethiopia, which is considered to be a landlocked developing country (LLDC) from a global perspective, frequently has limitations in its transportation sector, particularly with regard to the provision of multimodal transport networks at the national level. The challenges of distance, higher port fees, and warehouse rent are the causes of these constraints, which led to an increase in the delivery costs of imports, a decline in competitiveness, and an attraction for foreign direct investment. Each of these factors contributed to the overall situation (UNCTAD, 2001). Ethiopian Shipping and Logistics Service Enterprise (ESLSE, 2023) website exposed that the service delivered by the multimodal transport system in Ethiopia is associated with high transportation costs, lack of timely service carried by trucks, inefficient dry ports, overcrowding and congestion of ports, and lack of technicians' employee in the sector. Moreover, the lack of information technology (IT) supported online systems in the operation, marketing, and customer service delivery lead to challenges of multimodal transport system provision and operation.

ESLSE was created by the merger of previous sectors such as Ethiopian Shipping Company, Maritime and Shipping Services Company and Dry Port Company. However, logistical constraints prevented us from providing the necessary services. After the introduction of MMTS, Ethiopia is expected to see improvements in door-to-door service delivery, moving goods from the consumer to the seller more efficiently at fast delivery times and low shipping costs.

The Ethiopian Shipping and Logistics Service Enterprise (ESLSE) plays a crucial role in enabling trade and transportation within Ethiopia and globally. However, as the demand for efficient and sustainable transport solutions continues to rise, it becomes imperative to assess the practices, challenges, and prospects of multimodal transport operations within the enterprise. Currently, there is a significant knowledge gap regarding the effectiveness of the existing practices, the key challenges faced, and the prospects of multimodal transport operations in Ethiopia. This lack of comprehensive understanding hinders the ESLSE's ability to plan, strategize, and optimize its multimodal transport operations effectively. Consequently, it may

struggle to meet customer demands, enhance operational efficiency, and seize the opportunities presented by multimodal transport.

To address this problem, this study aims to explore deeper into the practices, challenges, and prospects of multimodal transport operations specifically within the ESLSE. By conducting a thorough analysis, this research intends to identify the current practices employed by the ESLSE, evaluate their effectiveness, and uncover any shortcomings that may exist. Additionally, the study will explore the key challenges faced by the enterprise, such as inadequate infrastructure, regulatory obstacles, technological limitations, and coordination issues among different modes of transport. Furthermore, the research will assess the prospects of multimodal transport operations, considering emerging trends, technological advancements, changing customer demands, and potential collaborations with other stakeholders in the transport industry. By gaining a comprehensive understanding of these prospects, the study aims to propose solutions and recommendations to improve the efficiency of transport operations within the ESLSE.

Finally, the results of the study were close the knowledge gap and offer useful information, allowing the ESLSE to improve its multimodal transport operations. The objective is to effectively fulfill customer requirements, optimize operational effectiveness, and prioritize the promising opportunities presented by multimodal transportation in Ethiopia.

1.3. Research Question

The following research questions are addressed by the study:

1. What are the current practices of ESLSE in relation to the multimodal transportation services it provides to its valued customers?
2. What are the main challenges that limit improvements in the efficiency and effectiveness of the transport system under the management of the ESLSE?
3. What prospects are available for maximizing the overall performance and operational efficiency of an ESLSE-managed multimodal system?

1.4. Objectives of the Study

In accordance with the identified issues, the purpose of this study has been classified into a broad objective and specific objectives.

1.4.1. General Objective

The basic goal of the study is to evaluate the practices, challenge, and prospect of multimodal transport system provisions in the case of Ethiopian Shipping and Logistics Service Enterprise.

1.4.2. Specific Objectives

The specific objectives of the study are:

1. To assess the current practices of multimodal transport that ESLSE offers to its valued customers.
2. To assess some of the challenges that came up during the development of a multimodal transportation system in the context of the Ethiopian Shipping and Logistic Service Company.
3. To assess the prospects of enhancing the efficiency and effectiveness of ESLSE's multimodal transport system.

1.5. Significance of the Study

The outputs of this study will be vital importance because of the inefficiency of trade logistics of the country, and it is helping the ESLSE to identify the key factors in the operation of the services and related to Multimodal transport service operations. As a logistics and supply chain student, we believe that this study result may help for logistics students, for trade policymakers, multimodal transport planners, government officials, and NGOs can benefit from this study's and assess current practices of Ethiopia's multimodal transport systems, challenges encountered, and future opportunities in the ESLSE sectors. This information can also help stakeholders identify, professional's students in trade logistics industries either directly or indirectly will benefit from this research paper and address supply chain issues.

1.6. Scope of the Study

Conceptually, the study focused on assessing the practices, challenges, and prospects of multimodal transportation system requirements in the context of the Ethiopian Shipping and Logistics Service Enterprise. The study population included the employees at the head office and Modjo dry port of Ethiopian shipping and logistic service enterprises to efficiently manage the sample size and methodological component.

1.7. Limitation of the Study

The research topic involves an extensive range of issues. However, the time and financial constraints hindered the full assessment and analysis of all dry ports in Ethiopia and Djibouti. Therefore, the study's target interview consists of those who work at the Addis Ababa headquarters and the Modjo dry ports. To maximize the results of research, The researcher believe it is important to incorporate all operational sites located in different places, like the Djibouti coordinating office, within the structure of multimodal transport systems.

1.8. Organization of the Study

This assessment is structured into five chapters. The study's introduction is the subject of Chapter one. This chapter provides a comprehensive account of the study's background, problem statement, objectives, research questions, significance, scope, and organization. The second chapter is a literature review that encompasses the theoretical, empirical, and conceptual framework, as well as the clarification of key concepts. The third chapter pertains to the study's methodology, which encompasses the design of the study, sampling procedures, and data collection instruments, among other subjects. The fourth chapter contains research findings and discussions of the research findings. The final chapter, conclusions and recommendations of the study are delineated in this chapter, which is followed by the references and appendixes.

CHAPTER TWO

REVIEW OF RELATED LITERATURE

Introduction

This section reviews major suggested study research. Literature reviews rank relevant research from best to worst. This study reviews, explains, and blends multimodal transportation literature in an Ethiopian shipping and logistics service business related to the practices, challenges, and prospects of multimodal transport system provisions. For accuracy and reliability these study sources reliable academic articles, books, and scholarly publications and outstanding researchers in the field. And therefore, the researcher presents with theoretical literature and empirical literature based on the research objectives and hypothesis.

2.1. Theoretical Review

The theoretical concept of multimodal operation in the Ethiopian Shipping and Logistics Services Enterprise (ESLSE) involves the application of various theoretical frameworks and concepts to optimize the efficiency and effectiveness of multimodal transport operations. Here are some key theoretical concepts related to multimodal operation in ESLSE:

According to Demse (2018) Intermodals is a theoretical concept that emphasizes the seamless integration and coordination of different modes of transportation within a single supply chain. In the context of ESLSE, intermodals focus on the efficient transfer of cargo between modes such as road, rail, air, and water, ensuring smooth and uninterrupted movement. This concept focuses on the importance of skilled logistics personnel and their role in enhancing the performance of multimodal transport services. It involves the selection, training, and management of personnel to ensure efficient operations and effective coordination among different stakeholders.

Customs Facilitation: Customs facilitation is a theoretical concept that emphasizes the importance of streamlined customs procedures and cooperation between ESLSE and customs authorities. Efficient customs clearance processes, including documentation and inspections, are crucial for minimizing delays and ensuring the smooth flow of goods across different modes of transportation (Demse, 2018).

ICT plays a vital role in multimodal operations by enabling real-time tracking of cargo, electronic documentation, and seamless communication between ESLSE, shipping agents, and other stakeholders. The theoretical concept of ICT integration focuses on leveraging technology to enhance operational efficiency, transparency, and coordination.

Infrastructure Development: Infrastructure development is a key theoretical concept in multimodal operation. It involves the planning, construction, and maintenance of intermodal infrastructure, including ports, terminals, and logistics centers. Well-designed infrastructure facilitates the transfer of cargo between different modes and enhances connectivity (Butta et al., 2016; Demse, 2018)

Network Partner Integration: Network partner integration refers to the collaboration and coordination between ESLSE and its network partners, such as shipping agents, transport operators, and customs authorities. Theoretical concepts related to network partner integration focus on establishing effective partnerships, sharing information, and aligning objectives to optimize multimodal operations (Hailu, 2017; Demse, 2018). These theoretical concepts provide a framework for understanding and improving the multimodal operation in ESLSE, ensuring efficient and reliable logistics services.

2.1.1. The Concept of Multimodal Transport

The concept of multimodal transport the concept of "multimodal transport" can be defined as a combination of different modes of transport used in domestic or international transport, offering door-to-door services under the responsibility of a single transport (UNCTAD, 2003). In practice, this concept is not new and may have been used long before this terminology was introduced.

Wikipedia, the free encyclopedia, stated that multimodal transport (also known as combined transport) is the transport of goods under one contract, but carried out by at least two different modes of transport; the carrier is (legally) responsible for the entire transport, even if it is carried out by several different modes of transport (e.g. rail, sea and road transport). The carrier does not have to be in possession of all the means of transport and in practice is not; transport is often performed by sub-carriers (referred to as "actual carriers" in legal parlance). The carrier responsible for all transportation is called a multimodal transportation operator, or MTO. Multimodal transport developed in the context of the "container revolution" of the 1960s and

1970s; since 2011, container transport is by far the most important multimodal shipment. However, it is important to remember that multimodal transport is not the same as container transport. Multimodal transport is possible without any container. The medium-term goal works for the supplier; it assures the supplier (and the buyer) that their goods are managed and delivered efficiently. As part of international trade, multimodal transport has created significant business value for shippers compared to other alternative transport systems. Many authors, researchers and authors have emphasized the many advantages of multimodal operation:

Saving of time, risk of loss or damage of goods through planned and coordinated unified transport, establishment of a seamless communication link maintained through unified multimodal transport. Carrier, increasing market accessibility through rapid transfer and transport time, reducing multiple documents, saving costs due to possible reduction of freight rates, minimizing confusion through a single point of contact (multimodal carrier), ultimately improving competitive position. on the international market, different solutions can be easily compared in terms of performance and use of energy reduction, which provides environmental and social benefits. As Ethiopia is a landlocked country, the only means of logistics operation today depends on the port of Djibouti, and the government is currently trying to negotiate the use of the port of Harigessa in Somalia and the port of Lamu and Mombasa in Kenya as alternatives. According to various local newspapers and government officials. In general, the maritime transport sector is one of the bottlenecks in international trade in terms of import and export logistics. .

2.1.2. Definition of Logistics

"Logistics" is a term that is derived from the Greek word "logikos," which translates to "logistics," and the Latin word "logistics," which signifies "the science of computing and calculating." During World War II, the army's operations were increasingly reliant on logistics, which involved the transportation of personnel, equipment, food, and medications across borders. It has since obtained a more comprehensive meaning (Martin et al, 2013).

The coordination, execution, and supervision of the most efficient and effective storage and flow of fundamental materials, inventory, finished goods, services, and related information from the point of origin to the point of consumption (including in-bound, out-bound, internal, and external movements) is referred to as the process of satisfying customer requirements. This "Logistics" is

a term that is derived from the Greek word "logikos," which translates to "logistics," and the Latin word "logistics," which signifies "the science of computing and calculating." The efficient and effective transit and storage of raw materials, in-process inventory, finished goods, services, and related information from the point of origin to the site of consumption are ensured through the planning, implementation, and control of these items. This definition was established by (the Council of Logistics Management in 1991).

The operations that occur within the supply chain are referred to as logistics. The connection and activation of the objects in the supply chain are the responsibility of logistics. This encompasses inventory management, customer response, supply, transportation, and warehousing. This process entails the following: anticipating the needs and desires of customers, acquiring the necessary capital, materials, people, technologies, and information to meet those needs and wants, optimizing the network that produces goods or services to fulfill customer requests, and utilizing the network to fulfill customer requests in a timely manner. In other terms, logistics is the management of operations with a client-centric perspective (Rahmee, 2010).

Logistics is the process of ensuring that resources are positioned at the appropriate time, location, cost, and quality, as defined by the Chartered Institute of Logistics and Transport UK (2012). In contrast, the Council of Supply Chain Management Professionals defines the term "logistics" as the process of planning, implementing, and controlling the efficient and effective flow and storage of goods, services, and related information from the point of origin to the point of consumption in order to meet the customer's requirements. This definition is located in their Supply Chain Management Terms and Glossary (2010). Supply chain management is the process of integrating two or more logistics within a network to satisfy customer requirements, enhance efficiency, and generate value (Debela, 2013).

2.1.3. Logistics Challenges in Ethiopia

The logistics and supply chain processes in Ethiopia are facing a challenge due to the complex tariffs for imported items and customs and port delays. In addition, they discovered that the primary supply challenges are the inconsistency of quality raw materials during the bidding process and final delivery, the unavailability of local suppliers for imported items, and the extended processing and delivery times that result from the extensive bureaucratic procedures associated with the procurement of imported raw materials. The study also revealed that

Ethiopia's main transportation challenges are the lack of access to the sea (landlocked country) and the inferior transportation infrastructure. This led to a costly and difficult delivery process. This undercuts the firms' competitiveness within the nation.

Different researchers have identified the mentioned challenges, which are primarily concerned with supply-side issues and transportation. It tried to identify the overall logistics challenges using various categories, such as environmental, technological, and legislative, and it presented the critical ones that require immediate action. The scope of this study is vast. Since Ethiopia is a developing nation, it is in search of a variety of manufacturing and associated techniques from developed countries. Another obstacle to rapid logistics operations is the port. Ethiopia is the primary user of the port of Djibouti as a gateway for the overwhelming majority of its internationally traded goods. The majority of these goods are transported to and from the port by trucks. Due to this circumstance, Ethiopia's trade logistics have become exceedingly costly and uncompetitive.

The distinctive demographic and geographical characteristics of the nation are the primary causes of the additional logistical obstacles we face. There is a substantial delay and inefficiency in road transportation as a consequence of the geographical obstacles that exist throughout the nation.

2.2. Empirical Review

This section of the Empirical Literature Review assessments research by previous researchers in the world and Ethiopia on issues related to the Practices, Challenges, and Prospects of Multi-Modal Transport Operations. Various studies have shown the practices, challenges, and prospects of multi-modal transport operations. Some of them are mentioned below:

Multimodal transportation refers to the integration of different modes of transportation, such as road, rail, air, and water, to create an efficient and sustainable transportation system. In the context of Ethiopia, multimodal transportation presents both challenges and prospects. Let's discuss them below:

PRACTICES:

The current practice of multimodal transportation in Ethiopia is still developing, and several initiatives are being undertaken to address the challenges and promote integrated transportation

systems. Here are some key practices and initiatives related to multimodal transportation in Ethiopia: (Gena et al., 2020).

1. **Development of Integrated Transport Hubs:** Efforts are being made to establish integrated transport hubs where different modes of transportation converge. For example, the Modjo Dry Port, located near Addis Ababa, serves as a key intermodal facility connecting road, rail, and air transportation. These hubs facilitate the seamless transfer of cargo and passengers between different modes.
2. **Expansion of Railway Networks:** Ethiopia has made significant progress in developing its railway infrastructure. The Addis Ababa-Djibouti Railway, which connects Ethiopia to the Port of Djibouti, is operational and has improved multimodal connectivity for import and export activities. The government is also investing in the expansion of the railway network to connect different regions and enhance intermodal transportation.
3. **Improvement of Road Networks:** Efforts are underway to improve the quality and coverage of road networks, particularly major corridors connecting economic centers and border areas. Upgrading and expanding roads are critical for efficient multimodal transportation, as they provide the crucial link between different transportation modes and facilitate the movement of goods and passengers.
4. **Logistics and Trade Facilitation:** Initiatives are being implemented to streamline logistics and trade processes to enhance multimodal transportation. This includes the introduction of electronic systems for customs clearance and documentation, the establishment of one-stop border posts, and the implementation of trade facilitation agreements to simplify cross-border procedures.
5. **Public-Private Partnerships:** The Ethiopian government is actively seeking private sector participation in the development and operation of multimodal transportation infrastructure. Public-private partnerships (PPPs) are being promoted to attract investment, improve efficiency, and leverage private sector expertise in areas such as port development, railway operations, and logistics services.
6. **Regional Integration Efforts:** Ethiopia is actively engaged in regional integration initiatives to enhance multimodal connectivity within the East African region. The country is part of the Intergovernmental Authority on Development (IGAD) and the

Common Market for Eastern and Southern Africa (COMESA), which aim to promote regional cooperation, trade, and integration of transportation systems.

CHALLENGES:

Many authors highlight the challenges of multimodal transportation in Ethiopia and the need for improved efficiency. These are some important concerns regarding multimodal transportation in Ethiopia: (EMA, 2024), (TAGEL, 2014).

1. **Infrastructure:** One of the primary challenges for multimodal transportation in Ethiopia is the inadequate infrastructure across different modes of transportation. The road network requires significant improvement in terms of quality, connectivity, and capacity. Additionally, the railway and waterway networks are still underdeveloped and need substantial investment.
2. **Limited Interconnectivity:** The lack of seamless connectivity between different transportation modes hampers the efficiency of multimodal transportation. There is a need for synchronized schedules, standardized processes, and efficient transfer facilities to ensure smooth intermodal connections.
3. **Regulatory Framework:** Ethiopia's regulatory framework for multimodal transportation might require further development. Clear policies, regulations, and coordination mechanisms are essential to promote intermodal operations, ensure safety standards, and facilitate private sector participation.
4. **Capacity Building:** The effective implementation of multimodal transportation requires a skilled workforce capable of managing and operating the integrated system. Providing adequate training and capacity-building programs for professionals in various transportation sectors is crucial.

PROSPECTS:

According to the ESLSE employee and other studies, the prospects of multimodal operation in Ethiopia are as follows: (Gena et al., 2020).

1. **Economic Growth:** Multimodal transportation has the potential to contribute significantly to Ethiopia's economic growth by improving logistics efficiency, reducing transportation costs, and facilitating trade. It can enhance connectivity between production canters,

distribution hubs, and export/import gateways, promoting trade and investment opportunities.

2. **Regional Integration:** Ethiopia's strategic location in the Horn of Africa makes it a potential transportation hub for regional integration. By developing multimodal transportation networks, Ethiopia can strengthen its connections with neighboring countries, such as Djibouti, Kenya, Sudan, and South Sudan, fostering regional trade and cooperation.
3. **Agricultural Development:** Ethiopia has a thriving agricultural sector, and multimodal transportation can play a vital role in connecting rural areas to markets, enabling efficient transportation of agricultural produce. This can help reduce post-harvest losses, enhance food security, and promote rural development.
4. **Sustainable Development:** Multimodal transportation, when designed and implemented sustainably, can contribute to reducing greenhouse gas emissions and minimizing environmental impacts. By promoting the use of greener modes of transportation, such as railways and waterways, Ethiopia can work towards achieving its sustainable development goals.

To unlock the full potential of multimodal transportation in Ethiopia, it is crucial to prioritize infrastructure development, enhance regulatory frameworks, foster public-private partnerships, and invest in capacity building. Additionally, close collaboration with regional partners and international organizations can provide valuable support and expertise in developing and implementing multimodal transportation systems.

As per UNCTAD (2001) the document is mostly about the difficulties and problems that come with multimodal transport which is when things are shipped using more than one type of transportation under the same contract. It outlines the lack of a uniform international legal framework for multimodal transport and the various attempts to establish one, including the UNCTAD/ICC Rules for Multimodal Transport Documents and the MT Convention, which have not been universally adopted or entered into force. The paper also discusses the different approaches to liability in cases of localized and non-localized damage within multimodal transport, as well as the efforts of individual governments and regional bodies to enact legislation to address these issues. The overall content suggests a need for a global forum to prioritize the search for uniformity in laws governing multimodal transport to reduce legal uncertainties and facilitate international trade.

(Debela, 2013) conducted a study that focused on the adoption of multimodal transportation service in Ethiopian shipping and logistics service organizations. "Multimodal transportation service" A substantial percentage of customers expressed discontent or strong disagreement on a variety of performance measures, as indicated by the findings of the survey, which revealed that a considerable number of customers expressed. It is impossible to overestimate the significance of these results and their contribution to the enhancement of infrastructure for multimodal transportation services. Therefore, additional research at the national level would be required in order to guarantee the influence that has been demonstrated to be theoretically significant by a multimodal transportation service.

An investigation into the factors that contribute to the success of multimodal transportation was carried out by Aklile (2017) concerning the Ethiopian shipping services and Logistics Company, which served as the subject of the investigation, particular focus was placed on the company. The analysis concluded that the absence of logistics infrastructure was the cause of the rise in transportation expenses as well as the increase in the amount of time required for transportation. In addition, this indicates that the success of multimodal transportation is heavily dependent on a number of elements, such as the costs of transportation, the amount of time it takes to transport goods, the quality of the infrastructure, and the dependability of the service.

Furthermore, a least-squares regression analysis demonstrated that independent components were capable of explaining sixty-five percent of the variance in the effectiveness of multimodal therapies. An investigation into the challenges that arise when utilizing a multimodal transportation system was carried out by (Butta et al.,2016). The research focused specifically on the commercial and logistics service industry in Ethiopia. Network connection, the utilization of information and communication technology at each place, and the physical infrastructure of trains are ranked first, second, and third, respectively, according to the findings of the study. These are the elements that are considered to be the most significant challenges that a multimodal transportation system experiences. How important it is to show respect.

As an illustration, the findings of a study that was conducted by (Debela, 2013) indicate that Ethiopia's logistics systems have a number of deficiencies due to their implementation. To begin, there is a significant deficiency in the accessibility of transportation infrastructure, both in terms of quantity and quality. In addition, major trucking businesses have a limited number of trucks in

their fleet, and often lack the management skills and human resources expertise necessary to effectively manage their workforce. In addition, the ineffectiveness of state-owned businesses is a factor that contributes to the severity of the situation. Because of the inefficiency of the customs processes, there are lengthy delays at checkpoints, which is another factor that contributes to the problem. In addition, the process of acquiring foreign currency from the state bank is not only labor-intensive but also time-consuming, and it takes a significant amount of time to finish.

According to (Debela, 2013) carried out a study that looked into the various methods in which logistics practices may be implemented in Ethiopia. Insufficient logistics management, a lack of cargo coordination, limited development of logistics infrastructure, an insufficient number of cargo trucks and obsolete equipment, as well as damage and deterioration of goods during handling, transportation, and storage are some of the characteristics that are exhibited by Ethiopia's logistics system, as indicated by the findings of the study. As a consequence of this, the links between producers (farmers) and consumers (markets) were insufficient, which led to Ethiopian products not being competitive in the global market. Additionally, the absence of seaports was a factor that contributed to this predicament. Due to the fact that this was the case, it had a detrimental impact on the economic well-being of the entire nation as well as the livelihood of the people living there. In cities and entry and departure points that have a considerable number of goods trucks, there is not only a significant amount of traffic jams, but there is also an abnormally high incidence of traffic accidents, which is the highest in the world. Furthermore, there is a significant number of accidents that take place in the realm of transportation. In order to address the socio-economic issues that are associated with the situation, it is essential to develop a logistics system that is not only effective but also practical.

Tessema, 2017 that investigated the challenge and prospect advantages associated with the establishment of a multimodal transportation system in Ethiopia. Throughout the course of this investigation, the Ethiopian shipping and Logistics Company proved to be the focal point of attention. According to the conclusions of the study, the most significant obstacles that the MMT system faces are the absence of integrated information and communication technology (ICT), the absence of competent logistics professionals, the absence of a support environment for the system, and the absence of adequate tailored convenience. The findings revealed a number of aspects that had to be taken into consideration in order to enhance the implementation of the

multi-modal transportation system in the years to come due to the findings. Among these characteristics are the construction of future trains, the development of new technologies, the rapid growth of the national economy, the stability of the political system, and the efforts that are currently being undertaken and those that will be undertaken in the future with the mission of reinforcing the infrastructure.

Kifle and Girma (2000) conducted a study on the cargo transit challenges in Ethiopia. The study on multimodal challenges in Ethiopia focuses on the Ethiopian Road Fund (ERF) and the broader transport sector, identifying the need for reforms and improvements to enhance cargo transit efficiency. It discusses the necessity for public awareness regarding overloading, the privatization of weighbridge stations, and the implementation of deterrent penalties for violations. The study also recommends a national road survey and socioeconomic studies to provide concrete data for better decision-making and fund allocation. It highlights the importance of minimizing transport and trade barriers, promoting intermodal flexibility, and the interconnection of railway systems. Opportunities for the ERF include investing surplus funds into profitable ventures and expanding its mandate to include maintenance for non-motorized transport. The study also addresses institutional constraints faced by the CDE railway due to its dual ownership by Djibouti and Ethiopia.

(Gena et al., 2020) explored the challenges and prospects of providing and managing transport systems in Ethiopia: the case of Modjo dry port. The study showed that the biggest challenge in providing a transport system in the Modjo dry port is incomplete infrastructure. Lack of essential cargo handling equipment; the unfulfilled creation of the sage; No railroads, no trucks; Poor public-private partnerships, limited skills and poor provision of information technology. On the other hand, exchange rates will increase. There are many robberies and heroism; lack of education and knowledge creation; quick change; trade imbalance; complex documents and procedures to cancel procedures; Length and density of the load; non-automated services, high port handling, terminal and warehouse costs are the main challenges in managing the transshipment system at the Modjo dry port identified in this study.

(Fasika et al., 2014) conducted a study on the challenges faced by a selection of Ethiopian manufacturing industries, focusing on the characteristics of supply chain and logistics. The findings of this study revealed that the most significant transportation challenges are Ethiopia's

lack of access to the sea (a land-locked country) and its aging transportation infrastructure. As a consequence of this, the delivery procedure was both complex and costly. This makes it more difficult for the company to compete in the country.

2.3. The Research Gap

The empirical and theoretical review reveals a lack of comprehensive research on the practices, challenges, and prospects of multimodal transport operations. Therefore, it is critical to address this research gap by conducting a comprehensive study that covers the practices, challenges, and prospects of multimodal transport operations as a whole and in general, rather than separately. Additionally, these studies consider the impact of a new regional bilateral port agreement and private operators entering and participating in ESL multimodal operations. As a result, it is important to fill this research space by conducting thoroughly in three dimensions of practice, challenges, and prospects of the multimodal operation under the context of ESLSE.

CHAPTER THREE

RESEARCH DESIGN AND METHODOLOGY

Introduction

In this study, we are going to provide an overview of the research methods that were utilized. A description of the study area, the research approach, and the research design are included in this section. The research design encompasses the research method, sources of data, sample and sampling technique, data gathering instruments, procedure and data analysis, validity and reliability, as well as the ethical issues that were followed in the process of conducting this study.

3.1. Description of Study Area

ESLSE stands for Ethiopian Shipping and Logistics Services Enterprise and is a government-owned corporation created by the merger of four national companies. More importantly, the Ethiopian Shipping Lines Share company, the Ethiopian Maritime and Transit Service enterprise, the Dry Port Enterprise, and the Comet Transport Share Company are all working toward the same goal in their own ways. For this reason, the Council of Ministers Regulation No. 255/2004 was issued on November 21, 2011, by which the new company called Ethiopian Shipping and Logistics Services Enterprise was established. The new company is a vessel owner or ship-owner, charterer, operator and multi-modal provider. In order to expand the technical capabilities to provide shipping and maritime transit services, research should be conducted on the import and export trade needs of the country. The Ethiopian Shipping and logistics Services Enterprise were established with a capital of 3.7 billion Ethiopian birr. Currently, the capital is 22 billion birrs. Currently, the enterprise has a total of 11 vessels, 9 of which are charter vessels and 2 are tanker vessels. About 492 heavy trucks and dry port equipment. The human resources department organized by Chief executive officer (CEO) and four major sectors managed by four deputy directors. These sectors include the Freight Forwarding sector, the Shipping sector, the ports and Terminal sector and the business corporate services sector.

3.2. Research Approach

This research was carried out by assessing the practices, challenges, and prospects of multi-modal transport operations, specifically focusing on the case of Ethiopian Shipping and Logistics

Service Enterprise. To achieve the goal of the study and address the research questions, a combination of both qualitative and quantitative methods (Mixed) is going to be utilized. By applying a mixed research approach can be advantageous as it combines the strengths of both qualitative and quantitative methods, enabling a deeper examination. Also, any limitations in one approach may be accounted for by the other approach. In addition, these approaches provided a more comprehensive and completely understand of the effective operation of multimodal transport systems.

3.3. Research Design

Kothari (2004) defines research design as setting up parameters for data collection and analysis with the goal of balancing procedural efficiency with relevance to the research question. Using Ethiopian Shipping and Logistics Service Enterprise as a case study, the research paper assesses the practices, challenges, and future prospects of multimodal transport operations. Therefore, a descriptive type of research design is utilized in the study as the primary aim is to provide an in-depth assessment of the logistics practices of the Ethiopian Shipping and Logistics Service Enterprise, along with the associated challenges and prospects in the field of logistics. Descriptive design proves to be highly valuable when it comes to providing a comprehensive description of the data gathered in research studies and ensuring precise descriptions of the variables being observed. In addition, the study employs a cross-sectional design, which involves collecting all relevant data at a single point in time. The nature of the investigation and time constraints influence the decision to choose a cross-sectional study design.

3.4. Sample Size, Sampling Technique, and Target Population.

3.4.1. Target Population

According to Saunders (2019) the population is the full set of the universe from which a sample is taken. The target populations of this study are employees of the ESLSE MMT department at head office and Modjo dry port branch office. The Ethiopian Shipping & Logistics Services Enterprise, which has its head office in Addis Ababa (68 employees) and a branch office under ESLSE Multimodal Service in Modjo dry port (197), is the study's target population. We were selected a sample size from 250 regular employees using Yamane sample size determination formula from both offices that directly engaged the multimodal operation task from Djibouti to

dry port, customer bonded warehouse, and industrial zone. Therefore, the sample had been considered to reflect the overall target population of the study, which consists of all concerned operational team employees at the head office Multimodal department and Modjo dry port multimodal team including operational manager. Selecting a sample that is representative of the overall population is the goal. According to Kothari (2004) the reason the random sampling technique is employed is because it ensures the appropriate representation of the pertinent subgroups. The research thesis included respondents selected through a voluntary respondent and random sampling.

3.4.2. Sampling

The study collected data using a simple random sampling procedure. Random sampling selects a subset of individuals from a population at random. The goal is to obtain a sample that is representative of the larger population. According to Kothari (2004), the use of the random sampling technique ensures the desired representation of the relevant subgroups. We also used the random and volunteer participant methods to select respondents who completed the research thesis.

3.4.3. Sample Size

According to Yamane (1967) to get a representative sample for the population of this study sample size determination formula was employed. The researcher was used Yamane sample size determination formula because it helps to calculate an appropriate sample size where the exact number of the population is known. It is calculated as follows:

$$n = \frac{N}{1 + N(e)^2}$$

Where; N = Total population, n = sample size, and e= the desired level of precision or Tolerance at the desired level of confidence, take 0.05 at 95% the confidence level for this study. Thus, based on Yamane's formula sample size is determined:

$$n = \frac{265}{1 + 265(0.05)^2} = \mathbf{160}$$

3.5. Source of Data

Data classification can be divided into two different categories: primary and secondary. For this study, the researcher is going to use a combination of primary and secondary sources of data. The primary sources of data were collected from the organization's customers via a straightforward survey and from employees through an appropriate free interview. Initial information regarding people's opinion of the multimodal transport service was obtained by means of using both data sourcing methods. On the other hand, secondary data were internally compiled from journals, EMA manuals, and ESLSE annual reports, among other sources. This was facilitating an examination of the current practices and challenges encountered in multi-modal transport operations, therefore providing ideas regarding the service's future prospects. Concerning the logistics and shipping service enterprise based in Ethiopia.

3.6. Method of Data Collection

To assess the practice, challenges and prospects of multi-modal transport for Ethiopian shipping and logistics service enterprise and to provide possible recommendations, the study used primary and secondary data. In this study, a questionnaire was mainly used as a data collection tool. The questionnaires were chosen because they are more economical than most methods in terms of researcher time, effort, and cost. Second, it is better and easier for the respondents to fill out the choice given and also to express their feelings and answers to the questions. It kept away from the researcher's bias, guidance and indicators affecting the accuracy and reliability of data collection. Third, the questionnaire collects standardized responses. In addition to the survey, a group of concerned teams the company employees participated in unstructured interviews. The main purpose of the interview is to confirm some facts that the researcher already knows. To enhance and improve the results, the researcher conducted free interviews. The questionnaire consisted of three parts. The first part was designed to collect background information from the respondent, the second part was designed to collect general information from the respondent, and the third part measured each dimension on a 5-point Likert scale (1 = strongly disagree, 2 = Disagree, 3 = Neutral, 4 = Agree, 5 = strongly agree). This made the questions more relevant to respondents, interesting, which enhanced their partnership and ultimately ensured the highest response rates.

3.7. Validity and Reliability

3.7.1. Validity

Validity applies to the extent to which the study accurately measures its intended outcomes. To put it more simply, it focuses on measurement accuracy. Every measure that contributes to the creation of the instruments has satisfactory construct and content validity. For the current study, the researcher was derived some questioners from previous research. To ensure the validity of the study, the following measures were taken: The advisor and other colleagues collected data from reliable sources, such as respondents with experience with multimodal transport system and overall Ethiopian shipping lines and service enterprise operation activity and examined the study to ensure its clarity. These include elements such as the layout of the questionnaire, the clarity of the instructions, and any supplementary comments. The researcher also takes three different forms of validity into account. Develop Validity refers to how well a measuring tool covers the subject under study. It makes most of its decisions based on judgment and intuition. The second aspect of criteria-related validity is the capacity to forecast a certain result or approximate the presence of a given state of affairs. Third, construct validity is the degree to which scores on the test can be accounted for by the explanatory construct of sound theory (Kothari, 2004). If the above criteria for measuring validity are met, our questionnaire is valid. Additionally, we employed several measures to ensure the results were free from material errors in the questionnaire design. Such measures include the clarity of instructions, the clarity of questions, the layout of the questionnaire, and other comments. We assume the construct validity of the questionnaire, having developed it after a thorough review of corporate social responsibility academic literature because validity tells us the extent to which data collection methods accurately measure.

3.7.2. Reliability

Reliability refers to the extent to which the data collection techniques and procedures will yield results (Shenxue et al., 2009). The researcher used reliability analysis to measure the internal consistency of questionnaires. There are different methods of reliability testing. The researcher used use Cronbach's alpha for this study. The Cronbach's alpha reliability coefficient normally ranges between 0 and 1. The following is a general rule of thumb for Cronbach's alpha: >.9 indicates excellent, >.8 indicates good, >.7 indicates acceptable, >.6 indicates questionable, >.5

indicates poor, and less than .5. The researcher used Cronbach's alpha in this study to assess reliability. Accordingly, the reliability results of the measurements for the variables of the study are depicted in the table below.

Table 3. 1: Reliability Test

Variables	Sub variables	No. of Items	Cronbach's Alpha
Multimodal Practices	Information dissemination	5	.747
	Dry Port Terminal service	10	.873
	Inland Transport service	10	.912
	Operation Service	5	.894
		30	.884
Multimodal Challenges		10	.940
Multimodal Prospects		10	.943
Overall reliability of the entire items		50	.978

Source: Survey data analyzed via SPSS (2024)

As illustrated in the table above, all variables of the study were classified as acceptable which is greater than 0.70. Generally, the overall Cronbach's alpha value of the variables has fulfilled the requirement of Cronbach's alpha. This indicated that Cronbach's alpha coefficient of all variables fell within the stated range and concluded that there is internal consistency.

3.8. Method of Data Analysis

The data collected through the Google form online questioner data collection methods and utilized the statistical program known as the statistical package for the social science (SPSS) for the purpose of doing the analysis. A descriptive statistical method was utilized in order to conduct the analysis of the data. This software application enables to describe or compare variables numerically by editing, processing, and tabulating to draw information from it prior to analysis. The data analysis is mostly quantitative data. So, easy-to-read, descriptive, percentage, and analyzing method were applied. In the case of qualitative data textual explanation techniques

were used. Both these methods allow organizing and summarizing the information. To analyze and interpret the data statistical package for social science (SPSS) software was utilized.

3.9. Ethical Consideration

When collecting data for the study, first the researcher was explained the purpose and nature of the study to the respondents and asked for their consent before participating. In addition, the respondents' information was strictly confidential, collected for educational purposes, not used for personal gain, and the entire survey process was carried out to ensure compliance with accepted professional practice, so a few notes were written in the title of each one interview. It also says to include identifying information or personal references in the questionnaire. This is to avoid biased responses or false data provided by respondents and to ensure participants complete the questionnaire safely. Researchers collect the information and analyze the survey based on the responses. The results were reported accurately and truthfully without misrepresenting the work done or misleading others about its nature. The data were not manipulated to support a conclusion. Finally, a copy of the final report will be sent to the university.

CHAPTER FOUR

DATA ANALYSIS, DISCUSSION, AND INTERPRETATION

INTRODUCTION

Data presentation, analysis, and interpretation are the main topics of this chapter. In reaching conclusions based on data analysis and evaluation, the researcher used the statistical tools outlined in Chapter three, and the study was conducted using survey questioner data, physical observation at the Modjo dry port, and personal interviews with the ESL head office multimodal department team to ensure its reliability and validity. In the first part of the report, you can get a summary of the background information and demographic details of the respondents, including their gender, age, education level, and job experience. This includes their role within the company, the sector in which the business operates the line of foreign trade they represent, the company's ownership, and the countries in which they conduct their primary trading activity. The second section explores into a detailed analysis and interpretation of the research objective questionnaire data, focusing on the practices and challenges of ESL multimodal, as well as the prospects for improving the overall multimodal operation in the future. It also provides descriptions of the variables, along with their corresponding mean and standard deviation values.

4.1. Response Rate

The researcher used convenience random sampling. Out of 160 sample size respondents only 144 of these participants (90%) were able to successfully gather and submit the required data. From the Modjo Dry Port multimodal operation team, 95 (48.22%) successfully submitted the questionnaires within the specified time frame. Similarly, from the multimodal department teams at the head office, 49 (72.05%) individuals from 68 employees successfully submitted the questioner. The questioner consisted of a total of 59 questions, from which 50 of them utilizing Likert five scale styles. On the other hand, the enterprise-related inquiries and the respondent's profile were the subjects of the other nine questions. The data showed from 144 proper respondent's around 95 of the employees participate from the Modjo dry port, while the remaining 49 are from the head office's multimodal department and completed a Google Form questionnaire and a face-to-face group interview. The percentage of responses is 90%. According to Kothari (2004), half of the people that mean 50% of the concerned respondents surveyed found the survey to be satisfactory, and therefore a response rate of 90% is considered excellent.

This means the assessment response rate meets the requirements for best conclusions and recommendations.

Table 4. 1: Response Rate of Respondents

Description	Respondents
Target Population	265
Questionnaire distributed	160
Questionnaire returned	144
Response rate (%)	90

Source: Survey data analyzed via SPSS (2024)

4.3. Demographic Profile of the respondents

This section analyses the gender, age group, level of education, and work experience. This aspect of the analysis dealt with the personal data of the respondents of the questionnaires given to them. Therefore, to validate the reliability of the data collected it's mandatory to analyze the demographic profile of the respondent.

Table 4. 2: Demography of the respondents

Variables	Description	Frequency	Percent
Gender	Male	105	72.92
	Female	39	27.08
	Total	144	100.0
Age of the Respondent	20-30	42	29.2
	31-40	52	36.11
	41-49	49	34
	50 and above	3	0.69
	Total	144	100.0
Level of Education	Certificate	4	2.8
	Diploma	11	4.6
	Bachelor's degree	34	23.6
	Master's Degree	55	38.2
	Total	144	100.0
Work Experience	< 5 years	36	25.0
	5-10 years	77	53.5
	10 years and above	31	21.5
	Total	144	100.0

Source: Survey data analyzed via SPSS (2024)

As demonstrated in the table above, regarding the gender of respondents 105 (72.9%) of the respondents described themselves as male, while the remaining 39 (27.1%) identified themselves as female. This indicated that among the total number of respondents, the majority of the respondents were male. The findings of this study were majorly influenced by the views and opinions of the male gender.

Regarding age distribution, the majority 52 (36.1%), had ages ranging from 31 to 40 years old, while 49 (34.0%) had ages falling between 41 and 50 years old, with 42 (29.2%) being under the age of 30. Only three respondents (0.7% of the total) reported being over the age of 50. This indicates that the majority of respondents possess maturity and productivity, attributes the sector needs to accurately fulfill its operational responsibilities.

Concerning educational level, the majority 55(38.2%) of the respondents hold a master's degree or above, followed by 51 (35.4%) with a bachelor degree, 34 (23.6%) had a diploma, and the remaining 4 (2.8%) had only a certificate. This implies that most of the respondents in the study area have sufficient knowledge. Thus, they had been qualified enough and had the potential to change and face the frequent logistics challenges that they faced.

The respondents were also asked to indicate the number of years they had worked in the organization, accordingly, the majority 77 (53.5%) of the respondents served for five to 10 years, 36 (25.0%) for less than five years, whereas the remaining 31 (21.5%) of the respondents served for more than ten years. This could indicate that the participants had enough knowledge to provide information to support the study.

4.4. Background of the company respondents

In this section, general background information about the ESL office questionnaires is presented. This included information about the respondents' roles within the company, the industry in which the business operates, the foreign trade line they represent, the ownership of the company, and the countries where their daily multimodal operation system primarily entails trading. Therefore, it is essential to examine the respondent's background profile in order to verify the accuracy of the data gathered.

Table 4. 3: Employment Roles of Participants

What is your role at the company?		Frequency	Percent
Valid	CEO / Director	16	11.1
	Manager / Directorate	6	4.2
	Supervisor / Coordinator	3	2.1
	Team Leader	67	46.5
	Office Multimodal /Unimodal	52	36.1
	Total	144	100.0

Source: Survey data analyzed via SPSS (2024)

The above table illustrates the selected respondent role in the ESL multimodal operation office. As a result, the majority of respondents are team leaders 67 (46.5%) and multimodal officers 52 (36.1%), 3 (2.1%) are supervisors, and 22 (15.3%) are managerial positions. This could indicate that the participants had enough knowledge to provide information to support the study.

Table 4. 4: Company business sector types

Which industry does your organization or business actively participate in		Frequency	Percent
Valid	Manufacturing Business	10	6.9
	Service Business	86	59.7
	Wholesales & Import-Export trading	15	10.4
	Construction Business	27	18.8
	Agro Business	6	4.2
	Total	144	100.0

Source: Survey data analyzed via SPSS (2024)

The below evaluation indicates that nearly majority of the participants, 86 (59.7%), agree that the enterprises operate in the service sector. This may suggest that Ethiopia Shipping Lines Enterprise Services (ESLSE) is a government-run organization that provides services.

Table 4. 5: Company foreign trade types

Which line of overseas trade best reflects your usual duties?		Frequency	Percent
Valid	Export Trade	14	9.7
	Import Trade	88	61.1
	Both Import & Export Trade	24	16.7
	Local trade	13	9.0
	All trade	5	3.5
	Total	144	100.0

Source: Survey data analyzed via SPSS (2024)

Among the total number of participants, there are 88 (61.1%) responded to the questionnaire who agree with the statement that the biggest sector in which Ethiopian shipping lines and service enterprises (ESLSE) businesses are engaged is the sector of import trade activity.

Table 4. 6: Company ownership types

Who is the owner of your business?		Frequency	Percent
Valid	Local Investor	11	7.6
	Foreign Investor	10	6.9
	Government	115	79.9
	Government and Local Investor	5	3.5
	Local & Foreign Investors	3	2.1
	Total	144	100.0

Source: Survey data analyzed via SPSS (2024)

There are approximately 115 (79.9%) respondents who are absolutely convinced that the owner of ESL is a government organization that falls under the Ministry of Finance (MoF) and is regulated by the Ethiopian maritime authority (EMA).

Table 4.7: Source for foreign traders

From which countries does your main overseas trading originate?		Frequency	Percent
Valid	Africa Countries	8	5.6
	Middle east and Europe Countries	128	88.9
	China and Far East Countries	6	4.2
	American and Other Countries	2	1.4
	Total	144	100.0

Source: Survey data analyzed via SPSS (2024)

The primary foreign trade origins are shown in the table above, consideration of the ESL multimodal operating office. The majority of respondents were from Middle Eastern and European countries: 128 (88.9%) and 6 (4.2%) from China and Far East countries, 8(5.6%) from African countries and only 2 (1.4%) from American and other countries. This would suggest Ethiopia's main commercial partner was Middle Eastern trade.

4.5. Practices of ESL Multimodal Transport

The ESL has established to provide multimodal transport services for customers involved in both import and export activities. Handling procedure of imported goods transportation begins with from the loading port of origin. First the commercial department receives the document outlining the shipment's details. Upon receiving the manifest document, the multimodal department responsible for managing multiple modes of transportation promptly assigns an operation identification number to the shipment and forwards the required paperwork to the Djibouti office to kickstart the transit process. In Djibouti, a multimodal team from the Ethiopian Shipping and Logistics Services Enterprise (ESLSE) handles the port formalities in collaboration with the Association of Djiboutian Transitors (ATD). After completing all necessary procedures, the ESLSE designates a transport provider to transport the goods from Djibouti to various dry ports in Ethiopia or directly to the customer's warehouse. After the delivery, Djibouti is responsible for receiving the empty container. The operational procedures in place guarantee a seamless transport process for imported goods, requiring effective coordination among various parties including Ethiopian customs commission and strict compliance with essential documentation and transit requirements (ESLSE, 2021).

The Modjo and other local dry ports and terminals provide a variety of services to support multimodal consignments. These Modjo dry port services covers the efficient handling of goods, about loading, unloading, and warehousing for both incoming and outbound shipments. In addition to their range of services, they also offer container stuffing and unstuffing, ensuring efficient cargo handling. And also, provide container storage and container-related services to ensure the efficient handling and storage of containers. These services play a crucial role in guaranteeing the smooth operation of multimodal transport and meeting the logistical requirements of import and export shipments. The Descriptive Analysis for the Practices of Multimodal Transport operation system of ESL is summarized in the below table under four

categories. The descriptive statistics utilized are based on frequency tables to provide information on the mentioned variables. Through tables, summary statistics such as mean and standard deviations are computed for the current practice of Ethiopian shipping and logistics enterprise under this assessment of study. The findings which identified on this study as follows.

Pimentel (2010) used a kind of rule of thumb to create equal intervals for a range of five points Likert scale (that ranges from strongly disagree to strongly agree in the survey questionnaire). A calculated mean value that ranges from 1 to 1.80 implies strong disagreement, a mean range from 1.81 to 2.6, from 2.61 to 3.4, from 3.41 to 4.2 and from 4.21 to 5.00 represented respondents' perceptions of somewhat disagree, neutral, somewhat agree and strongly agree respectively. The 0.8 served as a boundary for each element of the measurement in the questionnaire.

Accordingly, the 0.8 was a result found by dividing the difference between the maximum (5) and minimum (1) scores to the maximum score (5) of the questionnaire. In the process of examining of the data, standard deviation was used. Small standard deviations (relative to the value of the mean itself) indicate that data are close to the mean whereas a large standard deviation (relative to the mean) indicates that the data points are distant from the mean. The mean is a poor fit of the data. Standard deviation is a measure of how well the mean represents the data. All of the variables were measured using a five-point Likert scale where 1 stands for Strongly Disagree and 5 stands of Strongly Agree. Therefore, the interpretation made using the mean of each variable, as a matter of fact the mean falls between the two ranges, hence if the mean approaches to 1 the interpretation would be the respondents didn't agree on the raised issue or variable and if it approaches to 5 the reverse would be true. And therefore, the summary of the highest and the lowest mean average of the value of descriptive statics finding under the practice of the multimodal transport as showed in table 9 multimodal operation information dissemination, table 10 multimodal dry port terminal services, table 11 multimodal inland transport services and table 12 current multimodal operation services are respectively.

Table 4. 8: Value of descriptive statistics Multimodal Operation Information Dissemination

Descriptive Statistics			
Multimodal Operation Information Dissemination	N	Mean	StD.
The concepts and processes of multimodal transportation systems have been properly presented to all employees of the company and the	144	4.05	1.41

business community.			
Shipment status notification applications from ESLSE have reduced shipping time, demurrage, and storage expenses.	144	3.85	1.65
Customers of multimodal transport know their rights, duties, and responsibilities under the new ESLSE system.	144	3.50	1.74
The new ESLSE system informs multimodal transport customers of their rights, duties, and responsibilities.	144	4.10	1.47
All ESLSE sectors consistently provide accurate business decision-making information.	144	4.50	1.10
Aggregate mean	144	4.00	

Source: Survey data analyzed via SPSS (2024)

As per the above table 4.8 above the multimodal operation information dissemination is the basic function of the multimodal transport system practice measurement. In order to assess the current practice of the multimodal activates we all questionnaire’s Likert respond choice the maximum score means (M=4.50, SD=1.10) that All ESLSE sectors consistently provide accurate business decision-making information is positive influences, The new ESLSE system informs multimodal transport customers of their rights, duties, and responsibilities with mean score (M=4.10, SD=1.47), The concepts and processes of multimodal transportation systems have been properly presented to all employees of the company and the business community with mean score (M=4.05, SD=1.41), Shipment status notification applications from ESLSE have reduced shipping time, demurrage, and storage expenses with mean score (M=3.85, SD=1.65) and Customers of multimodal transport know their rights, duties, and responsibilities under the new ESLSE system (M=3.50, SD=1.74). And, therefore, the average mean value scored for the variables of multimodal operation transport awareness creation by the company is 4.00 (Agree) and this implies that more than 75 percent of the respondents believes that the current practice is good based on information dissemination strategy.

Table 4. 9: Value of descriptive statistics Multimodal Dry Port Terminal Services

Descriptive Statistics			
	N	Mean	StD.
Dry ports and terminals are easily available throughout the country.	144	2.50	1.77
All available dry ports and terminals are fully equipped with all necessary equipment and services.	144	3.49	1.60
Even at peak periods, the various dry ports and terminals have ample space and capacity to handle all incoming and exiting cargo.	144	3.99	1.56

The dry port container landing services in Modjo are easy to use, and the waiting time is reasonable.	144	3.72	1.67
The Modjo Dry Port and Terminal are well-managed and offer good service.	144	3.52	1.53
The rates for dry port, terminal, and warehouse services are fairly cheap.	144	4.10	1.46
The law provides Modjo dry port and terminal services on a first-come, first-served basis if higher-level officials approve discrimination.	144	3.75	1.49
Goods are easily recognizable, and their safety is maintained during any transit.	144	4.10	1.48
Modjo dry port provides excellent cargo unstuffing services.	144	3.92	1.47
The general management procedures in the Modjo dry port and terminal sector are satisfactory.	144	3.84	1.46
Valid N (listwise)	144		

Source: Survey data analyzed via SPSS (2024)

According to table 4.9 the Multimodal Dry Port Terminal Services regarding multimodal operations is a fundamental aspect of measuring the current practice of a multimodal transport system. To evaluate the current implementation of multimodal port terminal over all service the researcher provides ten related questionnaires' for the respondent's and the study summery output according to the different variables for the questionnaires' dry ports and terminals are easily available throughout the country with the mean score (M=2.50, and SD=1.77) it tells that the dry port and terminal facilitate need investment, all available dry ports and terminals are fully equipped with all necessary equipment and services with mean score (M=3.49, and SD=1.60), even at peak periods, the various dry ports and terminals have ample space and capacity to handle all incoming and exiting cargo with main score (M=3.99, and SD=1.56), the dry port container landing services in Modjo are easy to use, and the waiting time is reasonable questions with many respondents with main score (M=3.72, and SD=1.67). And the Modjo Dry Port and Terminal are well-managed and offer good service with a mean score (M=3.52, and SD=1.53), the question related the prices the rates for dry port, terminal, and warehouse services are fairly cheap with the mean score (M=4.10, and SD=1.46) that means it is a reasonable because ESL port and terminal service is a monopoly and there is no competitor respect to the mention service, the law provides Modjo dry port and terminal services on a first-come, first-served basis if higher-level officials approve discrimination with mean score (M=3.75, and SD=1.49), goods are easily recognizable, and their safety is maintained during

any transit with mean score (M=4.10, and SD=1.48), Modjo dry port provides excellent cargo unstuffing services with mean value (M=3.92, and SD=1.47) and the final questionnaires' about the general management procedures in the Modjo dry port and terminal sector are satisfactory with a mean score (M=3.84, and SD=1.46). Thus, the current practice of the dry port terminal services average main score (M=3.69, and SD=1.53) implies that the terminal service is satisfactory for current activities.

Table 4. 10: Value of descriptive statistics for Multimodal Inland Transport Services

Descriptive Statistics			
	N	Mean	StD.
Processing and shipping are more efficient in Djibouti compared to using a unimodal mode of transportation.	144	3.90	1.48
On time and accurately, shipments reach the specified dry ports.	144	3.42	1.60
When contrasted with private transporters, the enterprise's inland transportation service rate is fair and competitive.	144	3.60	1.62
In order to offer efficient and effective transportation services, the firm has more trucks than private transporters.	144	3.49	1.62
If a client has a complaint, the multimodal transport division will address it.	144	3.60	1.59
The inland transport division's management methods are satisfactory overall.	144	3.44	1.60
If you need shipping services, the existing trade routes will more than meet your needs.	144	3.75	1.57
In response to consumer demand, the shipping industry has been delivering first-rate shipping services.	144	3.60	1.48
The shipping service fee is reasonable and competitive, as one would anticipate from a manager of supply chains.	144	4.09	1.34
Both the human and physical assets of the shipping sector are adequate to support multimodal transport operations.	144	3.99	1.41
Valid N (listwise)	144		

Source: Survey data analyzed via SPSS (2024)

The above table 4.10 indicates that the multimodal Inland Transport services, which affect the multimodal operations, are a crucial factor in assessing the current state of a multimodal transport system. In order to assess the current implementation of the multimodal Inland Transport Services across all facilities, the researcher presents ten related questions to the respondents and analyses the study's output based on various variables. The questions related multimodal processing and shipping are more efficient in Djibouti compared to using a unimodal mode of transportation respond with a mean score of (M=3.90, and SD=1.48), On

time and accurately, shipments reach the specified dry ports with a mean score (M=3.42, and SD=1.60), When contrasted with private transporters, when contrasted with private transporters, If a client has a complaint, the multimodal transport division will address it with a mean score (M=3.60, and SD=1.62), In order to offer efficient and effective transportation services, the firm has more trucks than private transporters with a mean score (M=3.49, and SD=1.62), If a client has a complaint, the multimodal transport division will address it with the mean score (M=3.60, and SD=1.59), The inland transport division's management methods are satisfactory overall with mean score (M=3.44, and SD=1.60), If you need shipping services, the existing trade routes will more than meet your needs with mean score (M=3.75, SD=1.57), In response to consumer demand, the shipping industry has been delivering first-rate shipping services with the mean score (M=3.60and SD=1.48), The shipping service fee is reasonable and competitive, as one would anticipate from a manager of supply chains with mean score (M=4.09, and SD=1.34), Both the human and physical assets of the shipping sector are adequate to support multimodal transport operations with mean score (M=3.99, and SD=1.41).

Table 4. 11: Value of descriptive statistics for current Multimodal Operation Services

Descriptive Statistics			
	N	Mean	StD.
Customer support is quick to respond when a multimodal operation is in place.	144	3.65	1.63
Problems with customer service are quickly resolved by the information and customer service division.	144	3.81	1.60
The company's several locations are now linked by an efficient multimodal system network, allowing them to better serve their clients.	144	3.75	1.63
By utilizing multiple modes of transportation, transaction costs and overall package transit times have been significantly reduced.	144	3.90	1.48
The field of multimodal transport meets the requirements of customer service.	144	4.18	1.36
Valid N (listwise)	144		

Source: Survey data analyzed via SPSS (2024)

As shown in Table 4.11, the current multimodal operation services, which are linked to multimodal processes, are a key factor in figuring out how a multimodal transportation system is doing right now. To figure out how well multimodal current operation service now for all facilities, the researcher asks the subjects Five important questions and then looks at the answers

using a number of different factors. The average mean score is 3.85, which means that almost all participant agrees for the questionnaire's". In light of this, the respondents think that the current state of multimodal operations needs close attention to improve the daily operation with high efficiency and customer satisfaction.

4.6- Challenge OF ESL Multimodal Transport

Table 4. 12: Value of descriptive statistics for challenge in Multimodal Transport Operation

Descriptive Statistics			
	N	Mean	StD.
Nowadays, managing multimodal operations in ESLSE can be quite challenging and complex.	144	3.97	1.44
The multimodal transport operations of ESLSE are effectively supervised by the Board of Directors.	144	3.85	1.44
ESLSE utilizes a strong compliance system to effectively monitor and address every single case of rule violations.	144	3.40	1.69
The promptness and efficiency with which the customs offices clear shipments are first-rate.	144	3.60	1.53
The customs' goods clearing procedures are well-suited for multimodal operations.	144	3.85	1.43
Customs commission and ESLSE currently have a high degree of coordination.	144	3.50	1.51
All original customs documentation is usually provided by multimodal consumers enable to finalized customs next clearance process.	144	3.75	1.56
In general, customs offices operate admirably when it comes to multimodal operation.	144	3.84	1.45
The monitoring procedure used by ESLSE for observing compliance with rules is powerful.	144	3.76	1.57
ESLSE may be considering privatizing the multimodal operation for the benefit of the business community in order to minimize the challenges caused by multimodal operations.	144	4.06	1.35
Aggregate mean	144		

Source: Survey data analyzed via SPSS (2024)

As shown from the table 4.12 above, the descriptive statistics provided in the table demonstrate the perceived impact of challenge in multimodal transport in Ethiopian shipping lines service enterprise. According to the data, the questionnaires' provided to the respondents that is ESLSE may be considering privatizing the multimodal operation for the benefit of the business community in order to minimize the challenges caused by multimodal operations is highly scored from others questions with a mean score of (M=4.06, and SD=1.35), managing

multimodal operations in ESLSE can be quite challenging and complex with mean score of (M=3.97, and SD=1.44), the multimodal transport operations of ESLSE are effectively supervised by the Board of Directors and the customs' goods clearing procedures are well-suited for multimodal operations questionnaires' responds with mean score of (M=3.85, and SD=1.44), and (M=3.85, and SD=1.43) respectively, in general, customs offices operate admirably when it comes to multimodal operation with mean score of (M=3.84, and SD=1.45), the monitoring procedure used by ESLSE for observing compliance with rules is powerful with mean score of (M=3.76 and SD=1.57), all original customs documentation is usually provided by multimodal consumers enable to finalized customs next clearance process with mean score of (M=3.75, and SD=1.56), the promptness and efficiency with which the customs offices clear shipments is first-rate with mean score of (M=3.60 and SD=1.53), customs commission and ESLSE currently have a high degree of coordination with mean score of (M=3.50 and SD=1.51) and ESLSE utilizes a strong compliance system to effectively monitor and address every single case of rule violations with mean score of (M=3.40 and SD=1.69). From the finding, we can conclude that, the respondents are positive influence and agree with impact of variables that the challenge of the multimodal transport system in ESL is highly affect the operation efficiency and effectiveness to meet customers and employee urgent requirements.

4.7. Prospect of ESL Multimodal Transport

Table 4. 13: Value of descriptive statistics for Prospect in Multimodal Transport Operation

Descriptive Statistics			
	N	Mean	StD.
The success of the multimodal operation is attributed to ESLSE's outstanding cooperation with all government and private partnerships.	144	4.11	1.34
In every corner of multimodal operation service, ESLSE achieves maximum satisfaction.	144	3.89	1.43
In order to align with the ESLSE vision and mission, it may be necessary to revise the overall multimodal policy to prioritize business society over government interest.	144	4.17	1.39
Do you believe that the current multimodal operations in Ethiopia are both efficient and effective?	144	3.51	1.69
In the future, ESLSE plans to conduct all of its operations using multimodal transportation methods.	144	4.10	1.39
Providing timely service at a minimum cost is one of ESLSE's primary goals in implementing multimodal operations.	144	3.85	1.46
ESLSE's main achievement will be to use multimodal operations instead of unimodal for all operations.	144	3.92	1.44

ESLSE's objective may be to fulfill customer requirements by providing reasonable, effective, and efficient service in every aspect of multimodal operations.	144	3.75	1.57
The recently underway agreement between the Kenya Lamu port and the Somali land port could potentially lead to future success for the ESLSE multimodal operation.	144	4.06	1.29
Customer compliance may decrease if ESLSE offers multimodal operations to prospective private sector companies in line with the government's duty.	144	4.02	1.37
Valid N (listwise)	144		

Source: Survey data analyzed via SPSS (2024)

According to the above table 4.13 the SPSS output for each question respondent's degree is positive and agree that implies ESL has a lot of prospects and opportunity to improve the ongoing business activity with highest level of efficiency. The success of the multimodal operation is attributed to ESLSE's outstanding cooperation with all government and private partnerships with mean score (M=4.11 and S.D=1.34) in every corner of multimodal operation service, ESLSE achieves maximum satisfaction with mean score (M=3.89 and S.D=1.43) in order to align with the ESLSE vision and mission, with mean score (M=4.17 and S.D=1.39), do you believe that the current multimodal operations in Ethiopia are both efficient and effective? with mean score (M=3.51 and S.D=1.69), in the future, ESLSE plans to conduct all of its operations using multimodal transportation methods with mean score (M=4.10 and S.D=1.39), providing timely service at a minimum cost is one of ESLSE's primary goals in implementing multimodal operations with mean score (M=3.85 and S.D=1.44), ESLSE's main achievement will be to use multimodal operations instead of unimodal for all operations (M=3.92 and S.D=1.44), ESLSE's objective may be to fulfill customer requirements by providing reasonable, effective, and efficient service in every aspect of multimodal operations with mean score (M=3.75 and S.D=1.57), the recently underway agreement between the Kenya Lamu port and the Somali land port could potentially lead to future success for the ESLSE multimodal operation with mean score (M=4.06 and S.D=1.29) and Customer compliance may decrease if ESLSE offers multimodal operations to prospective private sector companies in line with the government's duty with mean score (M=4.02 and S.D=1.37).

CHAPTER FIVE

SUMMARY OF FINDINGS, CONCLUSION AND RECOMMENDATION

INTRODUCTION

An overview of the results, a conclusion, finding, and recommendation make up the last portion of the thesis. The summary is a condensed version of the assessment's main points and conclusions. The conclusion summarizes the entire thesis, bringing attention to the key ideas and delivering the final results. The recommendations provide realistic ideas and suggestions to enhance Ethiopian Shipping and Logistics Service Enterprise's actual multi-modal transport operations. The study primarily focuses on analyzing the practices, challenges, and prospects of multi-modal transport operations.

5.1. Summary of Major Findings

The main purpose of the study was to assess the practices, challenge, and prospects of multi-modal transport operations within Ethiopian shipping and logistics service firms are the main topics of this part, which gives a summary of the study's data analysis and findings. We utilized the information obtained from a questionnaire in order to carry out the research and formulate our interpretation of the evaluation. In the previous chapter, we presented the result thorough the SPSS software generated study's results. The main purpose of the study is to be assessing the current practice, challenges, and prospects of potential future developments of multi-modal transport operations.

To achieve the study's goals, we used structured questionnaires for data collection through Google form and analyzed the data using the statistical package for social sciences (SPSS current version 23). The study received an excellent response rate of 90%. Based on Yamane's formula sample size result, out of the 160 participants, to take part in the study almost 144 active participants were able to successfully submit the required data within the time frame. The Modjo Dry Port multimodal operating team included 197 employees in total. Of those, 95 (48.22%) completed the questionnaires and used the provided Google Platform link to submit it successfully. In the same way, 49 (72.05%) of the 68 employees that represented the multimodal

department teams at the main office (Head office ESL) effectively done and returned the survey accordingly. The respondents returned a total of 144 questionnaires. 105 (72.9%) were male, while the remaining 39 (27.1%) were female. There is a higher number of male respondents in the study area compared to female respondents. In terms of age distribution, most employees in the study area are young i.e. 52 (36.1%). When it comes to work experience, a significant number of participants (77, or 53.5%) had tenure of 5-10 years. When it comes to educational qualifications, the majority of respondents (55, or 38.2%) have completed a master's graduate.

When we discuss about the overall practice of multimodal transport operation that a single transport contract. The process of importing goods begins with the shipment from the loading port, according to the enterprise's data. The logistics department receives the shipment manifest document and assigns an operation identification number for the specific shipment. Then dispatch the necessary documents to the Djibouti office to start the transit process. The Association of Djiboutian Transitets (ATD) facilitates the completion of port formalities in Djibouti for the Ethiopian Shipping and Logistics Services Enterprise (ESLSE). The corporation will then choose an inland transporter to take the cargo from Djibouti to either the dry ports in Ethiopia or the customer's warehouse once the necessary paperwork is completed. They bring the empty container back to Djibouti after delivery.

These procedures ensure a smooth multimodal transport process for imported goods, involving coordination between different entities and adherence to necessary documentation and transit formalities. The local dry ports and terminals play a crucial role in facilitating multimodal shipments. One of the many things they do is load and unloads trucks and store goods that are coming in and going out. Additionally, they provide container stuffing and unstuffing services to ensure efficient cargo handling. These facilities also offer container storage and other container-related services to support the smooth movement and storage of containers. These services are critical for ensuring the effective operation of multimodal transport and meeting the logistical needs of import and export shipments. Using a bill of lading system, this service successfully integrates land transport, marine transport, and support activities into a single multimodal transport agreement. This permits the smooth integration of all three modes of mobility simultaneously.

Unlike supply chain managers, unimodal transport systems not significantly delay delivery ports, especially the port of Djibouti. Thanks to a transport agreement between Ethiopia and Djibouti, cargo can enter Ethiopia's dry ports before starting local customs. This efficient process will save a lot of time and unnecessary costs and clearance procedure until the final is done. There is a single transport contract from the loading port to the customer's storage and dry port, with a smart status notification via mobile SMS messages and the website compared to unimodal transport systems. Ethiopian shipping and logistics service enterprise have a lot of experience in handling various types of transportation. A comprehensive range of multimodal transport services is made available to both the company's customers and international trade groups.

On the other hand, the challenge of the multimodal in Ethiopia shipping lines and service enterprise, as the assessment results indicate that the primary issues with the multimodal transport system at ESLSE include the new entrants of three private logistics operators, lack of sea port due to land locked issue, many bottlenecked regulatory with Djibouti port administration and Ethiopia customs commission, security of transportation, cargo theft and pilferage, Ethio-Djibouti truck road incomplete infrastructure, a lack of necessary tools for cargo and dry port terminal movement, shortage of cargo trains and reliable (high bed and low bed) trucks, poor partnerships between the government and private sector, and a low level of technology and IT support. On the other hand, this study discloses that the primary issues with Ethiopia's multimodal transport system include rising foreign exchange rates, demurrage and long vessel transit, unbalanced trade due to conflict war in red sea territory (Israel Vs Hamas and Houthi's movement), vessels attack impact long route and delay shipment, complex paperwork and customs procedures, cargo delays and traffic jams, manual service, and high fees for transport, ports, and warehouses at the seaport.

The study's other objective is to examine the prospects of implementing multimodal transport in Ethiopia. According to the findings, these factors include bilateral agreement Kenya-Lamu port agreement Lamu Port-South Sudan-Ethiopia Transport (LAPSSET) and Ethio Somaliland port negotiation, massive investment project of Logistics hub – at Modjo dry port zone that African interconnected link (World bank fund), Digitalization of the ICT infrastructure, Branding ESL service – visible the name and easily accessible for all, country's economic growth, technological development, foreign direct investment, and membership in the World Trade Organization (WTO). The overall statistics, such as mean scores and standard deviations, provide an

understanding of the excellent perception and variability of each factor's importance for multimodal transport improvement. The analysis reveals that dry port and railroad construction are considered the most crucial factors, closely followed by economic growth and technological development with digitalization, foreign direct investment, and WTO membership. These factors also received positive responses during an open-ended, comprehensive interview with three multimodal team managers, including the Modjo dry port operational manager. The similarity of the mean score and the standard deviations suggests that the respondents' opinions are in positive agreement.

5.2. Conclusions

The conclusions address the primary study question, what prospects are available for maximizing the overall performance and operational efficiency of an ESLSE-managed multimodal system? by looking forward to the future and drawing conclusions accordingly. Consequently, the purpose of this research was to analyze the potential of a multimodal transport system in the context of the Ethiopian Shipping and Logistics Services Enterprise. In order to create a solid theoretical groundwork for the investigation, we reviewed all of the pertinent literature and included any applicable empirical studies. By adhering to the processes that we followed, we were able to determine and speculate on the most significant prospects that are associated with the operations of the multimodal transportation system. We reviewed and incorporated relevant literature and empirical studies on the subject to establish a strong theoretical foundation for the research. Through this process, we identified and hypostasized the key prospect associated with the multimodal transportation system's operations.

In terms of the questionnaire's', the research has shown that the existing agreement between the Kenya Lamu port and the Somaliland Berbera port has the capacity to improve the future effectiveness of the ESLSE multimodal operation logistics. We have disclosed this information, along with the survey results. It is believed that this agreement is the most important potential factor for Ethiopian shipping and logistics service companies to develop into multimodal transport operators that are profitable and effective. Additionally, if the Ethiopian government's EMA offers private multimodal operators that align with multimodal operations in the field of logistics, there is a possibility that customer compliance may decrease. Other contributing factors for the successful implementation of multimodal transport systems, such as customs facilitation,

product safety and security, port administration, and stakeholder integration. In the non-appearance of professional competitors with logistics operators, the enterprise cannot realize effective port area utilization, maintain product security, or make integration among stakeholders effective. The same is true for the absence of fast and reliable ICT infrastructure in the enterprise. That means the enterprise may have all the contributing factors for successful improvement and competitive market leader in every corner of multimodal operation system.

5.3. Recommendation

Based on the previous sections' findings and conclusions: The researcher is presenting the following recommendation. As multimodal operators in ESL, the assessment recommend the below strategies to enhance efficiency, effectiveness, competitiveness, and success, while addressing the current practice related issue.

The study recommends the Ethiopian Shipping and Logistics Services Enterprise (ESLSE) implement a comprehensive capacity-building program to address the future prospect of the multimodal transport system. This program should focus on building customer integrity and providing employees with training and professional qualification upgrades. Additionally, it is crucial for all relevant stakeholders to collaborate and take the necessary actions to maximize the aforementioned positive prospect, prioritizing them based on their level of seriousness.

In order to achieve every opportunity in hand ESL very closely and collaborate work with government stockholder's office like EMA (Ethiopia maritime authority), Logistics and transport minister, MoF (ministry of Finance), ECC (Ethiopian customs commission), Foreign affairs, Ethio holding investment board and other private sectors by making first initiation and major role in every corner of the business opportunity.

The finding recommends and advises that ESLSE should closely collaborate with the Ethiopia customs commission and port administration office of Djibouti to guarantee that the processes and documentation needed to clear customs products are in line with the multimodal transport system. ESLSE must streamline and minimize those bottleneck procedures and requirements from both offices by mutual discussion. In order to achieve this, it is imperative to conduct a thorough analysis, eliminate any superfluous procedures, and subsequently concentrate on the most critical documents and procedures. To accomplish this, the enterprise can facilitate smoother and more efficient customs clearance processes within the multimodal transport

system. And therefore, the researcher recommends promoting the use of cargo-scanning machines in the port to enhance the efficiency of freight inspection and to reduce theft and pilferage. These machines are more effective and accurate than human manual inspection. The secure and efficient movement of goods through the port is guaranteed by the implementation of cargo-scanning technology, which substantially reduces the risk of theft and pilferage. Modern technologies, including GPS, GIS, and CCTV cameras, are essential for the effective monitoring and prevention of unlawful activities during freight transportation. These technologies can provide real-time tracking and surveillance, enabling authorities to closely monitor the movement of goods and identify any potential illegal activities.

The Logistics and Transport minister for the ultimate growth of the country’s economic should commitment to providing a sufficient number of advanced cross-border freight transports equipped with modern technology such as GPS and GIS. These trucks have sufficient capacity to handle cargoes efficiently and ensure timely delivery from port to port. This initiative aims to increase the number of truck trips, facilitate import trade, and reduce delays and congestion at seaports. Ultimately, it will contribute to saving unnecessary charges at the seaport, unnecessary forex due to container demurrage and port warehouse due to shortage of trucks and landlocked issue.



The researcher recommends that ESL's board of directors and senior management should push the relevant government offices, including the prime minister's office, to facilitate the port

agreement and functionalize the bilateral agreement between the Kenya-Lamu Port Deal (LAPSSET) and the Ethiopian vs. Somaliland Port Administration (MoU). This will enable customer handling satisfaction with minimum cost and on-time cargo delivery, while also collaborating with other internal and external multimodal operators in all aspects of logistics activities in a landlocked country.

Ethiopia and Kenya port deal Kenya and Ethiopia have agreed to share a port. Ethiopia is using the Port of Lamu in Kenya to run more trade routes and depend less on Djibouti's ports. The Lamu Port-South Sudan-Ethiopia Transport (**LAPSSET**) Corridor will help trade between Kenya, South Sudan, and Ethiopia. Of course, Ethiopia is also trying to work out a problem with Somaliland over how to use a port.

Source : https://en.wikipedia.org/wiki/Lamu_Port_and_Lamu-Southern_Sudan-Ethiopia_Transport_Corridor

To balance the market, ESL should encourage the three new private multimodal operators to enter as soon as possible. ESL should expand its operations, make significant investments in ICT infrastructure technology, and implement digitalization strategies to compete with the new private logistic operators. This includes integrating customer relationship and management systems, providing online customer support, disseminating updated information, tracking cargo, and expediting document processing, particularly for freight and quotation inquiries.

ESL top management should also revise the structure and organize a strong team of employees for the success of the company, regardless of its primary goal being financial improvements. According to the findings of this study, even though the assessment of the participant respondents shows most of the employee have their second degree it is evident that the Ethiopian Shipping & Logistics Services Enterprise (ESLSE) needs more qualified professionals in the field of logistics and supply chain management. In light of this, the researcher recommends that the enterprise consider hiring professionals in logistics and establish a dedicated training center for its employees. This strategy will not only bolster the workforce's expertise and capabilities, but also guarantee the execution of tasks with increased efficiency and effectiveness. Alternatively, the enterprise could explore establishing partnerships with universities Like “School of Commerce” locally and “kühne Logistics University” online outside that produce qualified professionals in logistics and supply chain field. By leveraging such collaborations, the

ESLSE can provide training opportunities to its existing employees, enabling them to enhance their skills and knowledge through a combination of experience and formal education.

The government should encourage public-private partnerships to enhance the provision of necessary infrastructure, equipment, and operational control in the multimodal transport system. Given the lack of success in outsourcing these responsibilities to government enterprises, the government now supports the involvement of freight transport associations in the multimodal transportation system. This shift aims to achieve more efficient system provision.

Furthermore, promoting the use of information and communication technology (ICT) is crucial for enhancing and developing trade facilitation. Reliable ICT systems can ensure seamless and efficient information exchange between the ports. This enables timely and accurate sharing of data related to cargo, documentation, and logistics, leading to improved coordination, reduced delays, and enhanced trade facilitation overall.

In summary, the study suggests that the ESLSE should prioritize addressing its current practices and challenges, while also conducting research on future prospects both within and outside the enterprise. By doing this, the researcher guarantees the appropriate utilization of the results of these studies. Given the descriptive nature of our study, we propose that future research should concentrate on conducting more comprehensive investigations to precisely analyze the factors that optimize the multimodal transport operation system. Furthermore, the implementation of the multimodal transport system, which was introduced in the relatively recent year 2000 E.C., would be investigated through prospective longitudinal research, which would provide valuable insights into the system's operation as well as possible adaptations.

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APPENDIX: I

A SURVEY QUESTIONNAIRE

ADDIS ABABA UNIVERSITY COLLEGE OF BUSINESS AND ECONOMICS

SCHOOL OF COMMERCE LOGISTICS AND SUPPLY CHAIN DEPARTMENT UNIT

Dear respondent,

First of all, I would like to thank you for giving your precious time to fill in this questionnaire. The objective of this questionnaire is to gather primary information that will help assess the **Practices, Challenge** and **Prospects** of multimodal transport operations in the context of Ethiopian Shipping and Logistics Services Enterprise (**ESLSE**). This study will be undertaken as a partial requirement for the fulfillment of the Master of Logistics and Supply Chain Management.

The information and data gathered from this questionnaire will be kept confidential and used solely for the purposes of the study. As a result, you are cordially urged to answer these questions with the utmost good faith, frankly, freely, and to the best of your understanding.

N.B. Please do not include your name on the survey.

In ahead, I would like to express my gratitude for your time and your swift response.

If you need further information, please contact: - Phone # +251 944 73 99 44

Email samueldomerga@gmail.com

SECTION I:

DEMOGRAPHIC AND BACKGROUND INFORMATION

Direction: Please put a tick (✓) mark in the appropriate box which expresses yourself

1. Gender: Male Female
2. Age : Below 30 31-40 41-50 50 years and above
3. Level of Education: Grade 12 and below Diploma Degree master's and above

4. Work Experience :1 – 5 years 5 – 10 years More than 10 years
5. What is your role at the company? CEO / Director Manager / Directorate
Supervisor / coordinator Team leader Officer Multimodal/ Unimodal
ESLSE Customer
6. Which industry does your organization or business actively participate in? Manufacturing business Service business Wholesales & retail business Construction business Agro business
7. Which line of overseas trade best reflects your usual duties? Export Trade Import Trade Both Import and Export Trade
8. Who is the owner of your business? Local investors
Government Foreign investors Government & local Investors
Local & Foreign Investors Government with foreign Investors
9. From which countries does your main overseas trading originate? Africa countries
Middle east & Europe countries China and far east countries American and other countries

SECTION II:

Current Practices, of Multimodal Transport Operation Systems in the context of Ethiopian Shipping and Logistics Services Enterprise (ESLSE). There are five blank boxes beside each statement listed. The five numbers above the boxes represent the degree to which the respondent agrees with each statement. Therefore, the respondents are kindly requested to put “√” in the box that indicates ‘1’ means strongly disagree, ‘2’ Disagree, ‘3’ Neutral, ‘4’ agree, and ‘5’ strongly agree.

S. No.	A question about multimodal Practice	1	2	3	4	5
	Multimodal Operation Information Dissemination					
1	The concepts and processes of multimodal transportation systems have been properly presented to all employees of the company and the business community.					

2	Shipment status notification applications from ESLSE have reduced shipping time, demurrage, and storage expenses.					
3	Customers of multimodal transport know their rights, duties, and responsibilities under the new ESLSE system.					
4	The new ESLSE system informs multimodal transport customers of their rights, duties, and responsibilities.					
5	All ESLSE sectors consistently provide accurate business decision-making information.					
Multimodal Dry Port Terminal Services						
1	Dry ports and terminals are easily available throughout the country.					
2	All available dry ports and terminals are fully equipped with all necessary equipment and services.					
3	Even at peak periods, the various dry ports and terminals have ample space and capacity to handle all incoming and exiting cargo.					
4	The dry port container landing services in Modjo are easy to use, and the waiting time is reasonable.					
5	The Modjo Dry Port and Terminal are well-managed and offer good service.					
6	The rates for dry port, terminal, and warehouse services are fairly cheap.					
7	The law provides Modjo dry port and terminal services on a first-come, first-served basis if higher-level officials approve discrimination.					
8	Goods are easily recognizable, and their safety is maintained during any transit.					

9	Modjo dry port provides excellent cargo unstuffing services.					
10	The general management procedures in the Modjo dry port and terminal sector are satisfactory.					
Multimodal Inland Transport Services						
1	Processing and shipping are more efficient in Djibouti compared to using a unimodal mode of transportation.					
2	On time and accurately, shipments reach the specified dry ports.					
3	When contrasted with private transporters, the enterprise's inland transportation service rate is fair and competitive.					
4	In order to offer efficient and effective transportation services, the firm has more trucks than private transporters.					
5	If a client has a complaint, the multimodal transport division will address it.					
6	The inland transport division's management methods are satisfactory overall.					
7	If you need shipping services, the existing trade routes will more than meet your needs.					
8	In response to consumer demand, the shipping industry has been delivering first-rate shipping services.					
9	The shipping service fee is reasonable and competitive, as one would anticipate from a manager of supply chains.					
10	Both the human and physical assets of the shipping sector are adequate to support multimodal transport operations.					
Current Multimodal Operation Services						

1	Customer support is quick to respond when a multimodal operation is in place.					
2	Problems with customer service are quickly resolved by the information and customer service division.					
3	The company's several locations are now linked by an efficient multimodal system network, allowing them to better serve their clients.					
4	By utilizing multiple modes of transportation, transaction costs and overall package transit times have been significantly reduced.					
5	The field of multimodal transport meets the requirements of customer service.					

SECTION III:

The Following Tables are the Questions Related to Current Practices Multimodal Transport Operations and Systems.

There are five blank boxes beside each statement listed. The five numbers above the boxes represent the degree to which the respondent agrees with each statement. Therefore, the respondents are kindly requested to put “√” in the box that indicates ‘1’ means strongly disagree, ‘2’ Disagree, ‘3’ Neutral, ‘4’ agree, and ‘5’ strongly agree.

	A question about multimodal Challenge	1	2	3	4	5
	Challenge in Multimodal Transport Operation					
1	Nowadays, managing multimodal operations in ESLSE can be quite challenging and complex.					
2	The multimodal transport operations of ESLSE are effectively supervised by the Board of Directors.					
3	ESLSE utilizes a strong compliance system to effectively monitor and address every single case of rule violations.					

4	The promptness and efficiency with which the customs offices clear shipments are first-rate.					
5	The customs' goods clearing procedures are well-suited for multimodal operations.					
6	Customs commission and ESLSE currently have a high degree of coordination.					
7	All original customs documentation is usually provided by multimodal consumers enable to finalized customs next clearance process.					
8	In general, customs offices operate admirably when it comes to multimodal operation.					
9	The monitoring procedure used by ESLSE for observing compliance with rules is powerful.					
10	ESLSE may be considering privatizing the multimodal operation for the benefit of the business community in order to minimize the challenges caused by multimodal operations.					

SECTION IV:

The Following Tables are the Questions Related to Prospects of Multimodal Transport Operations and Systems. There are five blank boxes beside each statement listed. The five numbers above the boxes represent the degree to which the respondent agrees with each statement. Therefore, the respondents are kindly requested to put “√” in the box that indicates ‘1’ means strongly disagree, ‘2’ Disagree, ‘3’ Neutral, ‘4’ agree, and ‘5’ strongly agree.

S. No	A question about multimodal Prospect	1	2	3	4	5
	Prospect in Multimodal Transport Operation					
1	The success of the multimodal operation is attributed to ESLSE's outstanding cooperation with all government and private partnerships.					
2	In every corner of multimodal operation service, ESLSE achieves maximum satisfaction.					
3	In order to align with the ESLSE vision and mission, it may be necessary to revise the overall multimodal policy to prioritize business society over government interest.					
4	Do you believe that the current multimodal operations in Ethiopia are both efficient and effective?					
5	In the future, ESLSE plans to conduct all of its operations using multimodal transportation methods.					
6	Providing timely service at a minimum cost is one of ESLSE's primary goals in implementing multimodal operations.					
7	ESLSE's main achievement will be to use multimodal operations instead of unimodal for all operations.					
8	ESLSE's objective may be to fulfil customer requirements by providing reasonable, effective, and efficient service in every aspect of multimodal operations.					
9	The recently underway agreement between the Kenya Lamu port and the Somali land port could potentially lead to future success for the ESLSE multimodal operation.					
10	Customer compliance may decrease if ESLSE offers multimodal operations to prospective private sector companies in line with the government's duty.					