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

FACTORS AFFECTING THE EFFICIENCY OF FREIGHT FORWARDING OPERATIONS IN ETHIOPIA IN THE CASE OF SELECTED FORWARDING COMPANIES

A Thesis Submitted to Addis Ababa University School of Commerce in Partial Fulfillment of the Requirements for the Degree of Masters of Art in Logistics and Supply Chain Management

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DECLARATION

I, declare that the work presented in this thesis is my own original work. I have not used the work of others without giving appropriate credit. I have cited all sources used in the preparation of this thesis. I have not submitted this thesis for any other degree or award. I understand that any falsification or misrepresentation of my academic work will be considered a serious offense and may result in disciplinary action, including dismissal from the university. I have read and understand the university's policy on academic integrity and I agree to abide by its provisions.

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Thank you!

CERTIFICATION

This certifies that **Ephrem Legesse** has done his research on the topic: "***Factors Affecting The Efficiency Of Freight Forwarding Operations In Ethiopia In The Case Of Selected Forwarding Companies***" is partially satisfy the requirement for a Master of Arts degree in Logistics and Supply Chain Management. This study fulfills the requirement for an undergraduate degree.

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Advisor: Tesfaye Belay Takele (Assistant Professor)

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LIST OF ACRONYMS

ANOVA	Analysis of variance
COMESA	Common Market for East and South Africa
EDI	Electronic Data Interchange
EMA	Ethiopian Maritime Authority
ESLSE	Ethiopian Shipping & Logistics Services Enterprise
EFFSAA	Ethiopian Freight Forwarders and Shipping Agents Association
FCL	Full Container Cargo
FIATA	International Association of Freight Forwarders
RBV	Resource- Based View
SADC	Southern African Development Community
TPL	Third Party Logistics
TCE	Transaction Cost Economics

ABSTRACT

This study aims to identify the factors affecting the efficiency of freight forwarding operations in the case of selected forwarding companies in Ethiopia. A total of 238 questionnaires were distributed to five selected freight forwarders in Ethiopia using a questionnaire survey instrument and qualitative and quantitative data analysis techniques. Data have been analyzed the use of the Statistical Package for the Social Sciences (SPSS) model 20. The study will be of use in academic circles as it will help enormously in filling the knowledge gaps in the field of freight forwarding and as such can be used as a basis for future studies. The results show that transportation factors, poor cargo handling, delivery speed, high freight forwarding service costs, and poor customs clearance process are the main reasons for inefficient freight forwarding operations. The conclusions of the study results show that the freight forwarding activities in Ethiopia were inefficient. The study recommends as an infrastructure provider, the Ethiopian government invests better in road, rail, dry port and terminal infrastructure in line with the multimodal transportation service to ensure efficient and effective performance of the multimodal transportation service and concerned customs and facilities offices to simplify government regulatory frameworks for effective freight forwarding operation. A high level of collaboration between governments, forwarding companies and stakeholder improve the efficiency of freight forwarding operations in Ethiopia.

Key Words: ***Freight Forwarder, Freight Forwarding, Transportation & Efficiency***

CHAPTER ONE: INTRODUCTION

The process of shipping goods from one location to another by a freight forwarder is called Freight forwarding or freight shipping. Freight forwarding is an effective way of getting the most out of your business and avoiding any potential problems associated with the shipment of goods. Freight forwarding is also a cost-effective way of moving your product from one location to another. They act as intermediaries between shippers and transportation services, liaising with multiple carriers to exchange prices and choose the most profitable, reliable, and fastest route. The unpredictability of the general economy is a factor affecting the freight industry. All external reasons are put aside due to the internal challenges that are ravaging companies whether large or small freight forwarders. This study aims to assess the factors affecting the efficiency of freight forwarding activities in Ethiopia.

Undoubtedly, the freight industry is one of the most important contributors to the economy of any country. It is also one of the most common industries among people interested in business. It's important to note that the major determining factors that affect the operations of a company in any industry are the same as those affecting the operations of any other company in any industry. In this chapter, we have discussed the concepts of Freight forwarding, the factors that affect entering and operating in this industry in countries, and the research questions that guided this study. The chapter has also discussed the significance, limitations, and organization of the study. As you read this chapter, you will gain an insight into the freight forwarding industry and the factors that affect it.

1.1 Background of study

An efficient logistics sector is an important part of any country's sustainable development strategy. Reducing costs and improving the quality of logistics services allow for more and more timely delivery of goods and, as a result, the integration of domestic markets, as well as improved access to foreign markets. Better logistics performance is strongly related to business development, export diversification and economic growth (Arvis et al., 2010; Behar et al., 2013). Freight forwarders are among the most important special providers in the logistics network. A freight forwarder is an individual or company who arranges for other people or companies to transport goods from the manufacturer to the market (regardless of whether it is a direct customer or a distributor).To succeed in dynamic outsourcing environment, companies

are increasingly deciding to focus on their own skills and competencies. Importing and exporting can be expensive and time-consuming for manufacturers with fast bulk shipping, and freight forwarders can help companies reduce costs and increase operational efficiency. They understand international business, know the rules and regulations and simplify the shipping process for the benefit of a company shipping goods all over the world. (Kersten, Bemeleit & Blecker, 2016).

Cargo transportation is the moving of all kinds of goods from the place of origin to the place of destination by the best means of carriage with the lowest cost, prompt delivery and minimized risks to meet transportation requirements. The transportation of goods is an important part of the entire chain of demand and supply of goods and services (Douglas, James and Lisa, 1998). The capability to deliver quickly, safely, financially, and consistently is deemed essential for business success and the prosperity and competitiveness of a nation in a globalized economy (Debela, 2013). In Ethiopia, freight forwarding offerings are introduced via way of means of authorities and personal prepared freight delivery operators. The structures of provider transport have a undertaking from beginning to the very last vacation spot mainly inclusive of the lifestyles of inefficient, unreliable, and in aggressive freight delivery operators, the hassle of shipment security, escalation of working cost, delays at customs, insufficient storage, the hassle of included making plans and others. (Endale, 2017).

In deliver chain and logistics inefficiency is one of the factors which may be exhibited in phrases of better cost, delay, and unpredictability in handing over the product and provider to the customer, in turn, affects the financial increase of a united states (Dagmawi, 2016). Shortage of various facilities, negative shipment handling, shipment delivery device scarcity inside the port, loss of performance of customs offices, and insufficient and unavailable infrastructures are a number of the reasons of freight forwarding overall performance inefficiency even as transporting from beginning to a few different destinations (Kalkidan, 2017). The aim of this study is therefore to assess factors affecting the efficiency of freight forwarding operation in the case selected forwarding companies in Ethiopia.

1.2 Statement of Problem

Compared to advanced countries, in developing countries may be of terrible quality and may not meet the requirements of diagnosed institutions, which include the International Association of Freight Forwarders (FIATA). As logistics intermediaries deal with additional offers and manage the general freight activities, this creates an additional need for administration and coordination over the services of the transport companies. As a result, the shipment is regularly lost, damaged, or delayed, resulting in additional costs for shippers. Such a fragmented network can lead to a loss of responsibility and liability. In addition, shippers should pay higher management fees to manipulate more than one supplier who regularly charges higher fees for their offers. Full-carrier supply chain logistics companies offer shippers more aggressive rates, additional carriers and responsibility with significantly less administration (Molnar, Ojala 2003).

Freight forwarders face many demanding situations which might be complicated in nature concerning shipping logistics and elements that facilitate the float of worldwide change to international markets. In the advanced world, the transformation of the economy has resulted in a well-coordinated shipping service, enabling the end results of overall shipping logistics performance to be reliable, predictable and cost-effective (Tseng et al., 2005). The developing economies of Ethiopia absolutely pressure the call for freight shipping offerings to boom at an excessive rate. Almost 95% of import-export items to Ethiopia and from Ethiopia are finished the use of the port of Djibouti. According to ESLSE, freight that reaches the port of Djibouti is saved for 2 months or greater because of a shortage of freight automobiles or because of mismanagement of the automobiles. Shortage of automobiles, terrible street infrastructure, and vehicle damage and freight congestion at switch stations because of loss of right synchronization and distortion among the transport and produce automobiles are a few of the issues that agencies face in the course of freight transportation (Ayub, 2017).

From ever-converting policies to a decent aggressive market, freight forwarders are confronted with a whole lot of demanding situations. In the midst of a swiftly moving landscape, freight forwarders are on pinnacle in their daily responsibilities, many also are coping with novel problems as a consequence of close downs and financial uncertainty. Container shortages,

growing purchaser expectations, converting legal guidelines and policies, growing competition, exertions shortages, unstable transport prices & surprising delays are the various essential demanding situations affecting the overall performance of freight forwarding operation (Arvis et al., 2010; Behar et al., 2013).

Studies by Tagel (2014), evidenced in a corporate logistics exercise in Ethiopia, summarized in his study that the Ethiopian logistics structure is characterized by poor logistics control systems and lack of coordination of product delivery. Akililu (2017) found that a low degree of improvement in logistic infrastructure and insufficient fleets of goods transport vehicles in handling, transportation and garage are major reasons for high transportation demand situations. Following the assessment made, he stressed that there was an urgent need for studies on the identified logistics gaps, as well as on the human resource requirements in cargo delivery and the country's logistics needs. Debela (2013) noted in his studies that logistics practices in Ethiopia are characterized by limited infrastructure and resources on roads, rails, dry ports and terminal infrastructures, as well as the improvement in the requirements of logistic service providers, transistors, transport companies and agents in terms of technical skills, Human resources and finances are advocated as they bring high performance into circulation at lower cost.

The available review of literature indicates that the previous studies are not sufficiently addressed and conducted about freight forwarding operations. Most of the research to date has focused on the assessment, practice and challenges of logistics, transport & supply chain management services using descriptive study but, not considered factors affecting the efficiency of forwarding operation by considering the variables of transportation, cargo handling operation, customs, and border facilities. Therefore, due to this research gap the researcher was interested in conducting a study on factors that affect the efficiency of freight forwarding operation in Ethiopia in the case of selected forwarding companies.

1.3 Research Objectives

1.3.1 General Objectives of the Study

The general objective of this study is to identify the factors that affect the efficiency of freight forwarding operation in Ethiopia in the case of selected forwarding companies.

1.3.2 Specific Objectives

- To identify the transportation factors that affect the efficiency of freight forwarding operations.
- To examine factors that affect cargo handling operation in the efficiency of freight forwarding services.
- To analyze the effect of customs and border facilities on the efficiency of freight forwarding operations

1.4 Research Question/ Hypothesis

1.4.1 Research Questions

- What are the various levels of transportation variables that impact the operation of freight forwarding?
- What are the key determinants influencing the effective cargo handling operation of freight forwarding services?
- How do Customs and border facilities affect the efficiency of freight forwarding operation?

1.4.2 Research Hypothesis

1. Ha1. Transportation has a positive and significant effect on the efficiency of forwarding operations.

2. Ha2. Strong cargo handling operation has an optimistic and significant effect on the efficiency of forwarding operations.

3. Ha3. Customs and border facility has an optimistic and significant effect on the efficiency of forwarding operation.

1.5 Significance of the study

The generalization of this study would be a great contribution to the vast body of knowledge on the factors affecting the efficiency of forwarding operations. The important outcome of this investigation can be very important and particular to the following: For forwarding companies- After accomplishing this study the findings of the study will have practical significance in helpings forwarding companies in improving their services. For the trading activity of the country- as different stakeholders in the transportation sector and trading activity will be

informed about the forwarding operation status of the country, they will be able to take action, as a result, it will be helpful for the country to improve problems.

1.6 Scope of the Study

The Study focuses on identifying factors affecting the efficiency of freight forwarding operations in Ethiopia in the case of five selected forwarding companies. In terms of variables, this study is delimited to focus on three variables; transportation, cargo handling operation, customs, and cross-border facilities. Concerning case companies only five case companies that have the largest number of employees and wider operation are judgmentally selected by the researcher due to the accessibility of respondents and data. The data was collected from the management and employees of the five forwarding companies.

1.7 Limitation of the Study

Because the study is strictly limited to factors affecting the efficiency of freight forwarding operations in Ethiopia in the case of five selected forwarding companies. The researcher had difficulty finding sufficiently reliable sources of data addressing the issues under study. There may be limitations related to the methodology, such as the random sampling technique. The study was only carried out at five selected forwarding companies. This was a result of the limited time the researcher had and the inadequacy of funds also made the researcher cannot conduct more expanded research. All participants responded within a given time limit and received only one opportunity to respond. Therefore, it cannot be reliably established whether such data would hold over time. However, a pilot study was conducted to test the feasibility, validity and reliability of the research tools.

1.8 Definition of Terms

Freight forwarder or **carrier** means a person or company that cooperates with a freight forwarder (the person/entity that transports the goods) to arrange the delivery of the goods to the shipper (the person/entity that arranges the shipment of the goods) for a fee. Freight forwarders do not transport goods, but act as intermediaries in the logistics network.

A freight forwarding company is a company that acts as an intermediary between import and export transport companies and companies in need (Dictionary of Unabridged Random House, 1997).

Customs is an authority or agency in a country responsible for collecting tariffs and for controlling the flow of goods, including animals, transports, personal effects, and hazardous items, into and out of a country (Dictionary of Cambridge, 2021).

Border Facility means where customs and document checks can take place away from port locations. Location on an international border where travelers or goods are inspected and allowed (or denied) passage through (Dictionary of Cambridge, 2021).

Cargo Handling is the activity of moving goods on and off ships, planes, trucks, etc. It refers to the overall activities in logistics centers, such as loading and unloading cargo, transporting cargo, warehousing, picking, and sorting (Dictionary of Cambridge, 2021).

Transportation is the movement of capital goods and services from one region to another, both in customs and export. This can also involve moving from one node to another in the supply chain. It also allows access to new markets outside of manufacturing (Deshmukh, 2004)

1.9 Organization of the Paper

This document was organized into five chapters, the first of which introduces the factors affecting the efficiency of freight forwarding operations. This chapter will provide the background of the research, followed by the research problem statement; Research questions, objectives, scope, significance and limitations of the study will be discussed in this chapter. The second chapter reviews the existing literature on the research topic. The theoretical framework has taken into account the existing literature. The empirical framework will look at actual studies that have been done on similar research topics. A conceptual framework is a diagrammatic template used to give a strong graphical impression of what the research seeks to achieve and how.

The third chapter introduces the research methodology. Research methodology, study design, study population, sample size, and data collection procedures are discussed. Methods of data analysis are also discussed in this chapter. In the fourth chapter, the collected data is analyzed using statistical tools and other data analysis tools. The outcome of the study is also presented and discussed in this chapter. In the fifth chapter, a conclusion and a recommendation are made based on the results of the study and suggestions for future research are made.

CHAPTER TWO: REVIEW OF RELATED LITERATURE

2. Theoretical Literature Review

2.1 Definition of freight forwarding

A freight forwarder, freight forwarder, or freight forwarder is the person or company that arranges shipments from the producer or producer to the final market, customer or point of distribution (Dictionary of Unabridged Random House, 1997). Cargo is the movement of goods from one destination to another by one or more carriers by rail, sea, air or highway. Freight forwarding companies handle a wide variety of goods from their customers and control the entire shipping process to ensure shipments arrive safely and on time. To provide such a wide range of services, they need to develop a trusted network of carriers, insurers, customs brokers and advisors who can handle all of your issues. Expected and unexpected issues may arise during shipping. In some cases, these freight forwarders also have experience in purchasing, which means they can also handle purchases on behalf of their customers. However, they can be hired for specific purposes, depending on the needs of the client. Shipping can be national or international. International shipments are more complex and require a certain level of expertise to handle the various customs formalities (Nayem & Sarker, 2019).

A freight forwarding company is a company that acts as an intermediary between import and export transport companies and companies in need. Freight forwarding companies manage all aspects of the shipping process, from storing the goods before shipping to checking the goods through customs. Freight forwarding is an important role in the transport sector, which helps to simplify logistical processes for businesses. For manufacturers who need bulk shipping, imports and exports can quickly become costly and time consuming, and freight forwarders can help companies to reduce costs and increase operational efficiency (Indeed, 2023).

2.2. Types of freight forwarders

Freight forwarders are divided into two main types depending on the experience and level of service they provide to their customers. (Daley, 2001) classified them as international freight forwarders that offer multiple intermediary services and those which do not. One of these approaches could be referred to as a one stop shop approach: The overall strategy known as the 'onestopshopping' concept, which refers to total service capability for an individual third

party logistics supply chain provider including any operations related to outsourcing responsibility and associated administrative tasks, is used. It is considered that the concept of one Stop Shopping cannot be a success if service providers do not meet their customers (Semeijn and Vellenga, 1995:27).

Mahoney describes one-stop shopping as: “The TPL provider that promises to become a supermarket, where the shipper will be able to satisfy all needs with “one-stop shopping”. The shipper’s shopping list will be fulfilled with simplified document from origin to destination and the shipper will receive an audited computerized printout, just like the housewife at check point counter” (Se-meijn and Vellega, 1995:27). The second type offers only one line of service often consisting of the basic range of activities that classify them as freight forwarders. According to WareIQ (2023), freight forwarding in logistics is characterized based on the type of goods and the mode of transportation. For example, ocean freight is a type of transport that will use sea as the mode of transport. Air cargo is transported by plane and truck cargo is transported across countries by truck.

• **Ocean Freight or Ocean Freight Forwarding:** This is the transportation of goods by sea. Goods are transported in huge containers loaded onto ocean liner fleets. Sea freight forwarding specializes in transporting super-long and super-heavy goods to international destinations. Sea freight is one of the oldest modes of transport still used by businesses due to its affordability and efficiency. Sea freight allows you to ship bulk cargo where only your shipment takes up the entire container space, in this case called Full Container Cargo or FCL. In another case, if your shipment does not require the space of a full container, the freight is consolidated and combined with other customers' goods and the shipping cost is divided for all participants, this method is called less than loading container or LCL. Both techniques allow smooth freight on a budget that fits your budget

• Shipping by air: Shipping by air allows you to transport goods over longer distances in a shorter amount of time. If your goods need to be transported at considerable speed, air freight in logistics is the right choice for your business. However, air freight is subject to weight restrictions on certain items, as cargo planes can only carry a certain number of shipments at a time. Therefore, if speed is your only logistical requirement, then air freight is the way to go.

• Transporting goods by truck: This is the most common form of transportation used by businesses, especially across the country. As the name suggests, trucking cargo is done over roads and transported by heavy trucks or vans. Road freight is usually the end point of a delivery route. The transit schedule and speed are both dependent on external factors such as road traffic, congestion, road maintenance, etc. Trucking can be a great option when your goods have reached the destination country and moreover you want to ship them to multiple states, cities or provinces.

• Rail freight transport involves the movement of goods across the rail network. Transporting goods over long distances is economical, especially for heavy or bulky goods. Rail freight forwarding companies have established relationships with rail carriers, allowing them to negotiate competitive rates and prioritize their customers' shipments. They also handle all aspects of rail logistics, including documentation, customs clearance and delivery to the final destination (Redwood, 2022).

• Multimodal freight: Involves the transportation of goods through multiple modes of transport such as sea, air, road and rail. It is an efficient way to transport goods over long distances or across multiple borders. It allows the combination of modes of transport best suited to each stage of the journey (Redwood, 2022).

2.3 Functions of freight forwarders

The duties of a freight forwarder can vary depending on the type, size and nature of the relationship with the partners. Murphy, Daley and Dalenberg (1992) listed several functions performed by freight forwarding companies: Freight quotes. , Take necessary space for the ship, Prepare commercial invoice, Apply for export license, Issue export declaration to shipper, Prepare certificate of origin, Receive and prepare consular invoice, Prepare Bill of lading, Prepare air waybill, Get insurance, Pay shipping charges, Present documents to bank, Obtain warehouse space, Track and expedite shipments, Collect and pay for shipments, Advising shippers on selection of terms of sale, Acting as a general consultant on export matters, Providing transportation services from exporter to destination , Legal advice, Export packing Import, Consolidation, Route Proposal, Unloading. (Murphy, Daley and Dalenberg, 1992)

According to Redwood Logistics (2022), freight forwarders are representatives of transport companies in the transport logistics industry. They are considered by companies to be responsible for all activities performed during logistics including storage, transportation and delivery. Freight forwarding companies must have an extensive network of contractors, administrative firms, government agencies, etc., to be able to provide their customers with a streamlined and seamless way to ship and receive goods from anywhere in the world.

Cargo and document insurance: Domestic and international shipping is a delicate business and requires a lot of documentation and team coordination to make it happen. These documents include, but are not limited to, invoices, customs documents, port documents, etc. It is the job of a freight forwarder to arrange these documents for their customers so that they can enjoy smooth logistics services. In addition, carriers also offer cargo insurance to their customers, allowing them to be reimbursed if goods are stolen or damaged in transit. Shipment tracking: Shipping in logistics allows customers to have a seamless shipping process. For the same reason, freight forwarders set up a shipping management system so that customers are informed and can track the movement of goods at every stage of transportation.

Consolidation of shipments: Companies can save a lot of money if they do commercial freight with the help of freight forwarders, even if they don't have large volumes of cargo to move. Freight forwarding companies with many customers do not necessarily need a whole container; in such cases, cargo is consolidated at a lower tonnage than the container load, where multiple small volume shipments are placed in the same container. This type of freight logistics allocates shipping costs among a number of participating customers, each based on the space required for the cargo.

Negotiating on behalf of the customer: The freight forwarder acts as an intermediary between the shipper and the person who transports the goods by air, sea, rail or road. Their network includes many shipping partners in several regions, countries and continents. Through this established relationship, freight forwarders map out shipping costs and determine the most economical shipping routes so they can offer cost-effective solutions to their customers. Taking all factors into account, such as cargo type, space requirements, deadlines, etc., freight forwarders also negotiate and bargain low-cost shipping rates with carriers.

Cargo storage: Some freight forwarding companies that operate on a large scale also have their own warehouses to store goods that are scheduled to be shipped. These warehouses are equipped with advanced tools and can also hold goods with special storage requirements such as temperature control. However, most carriers provide service to their customers by arranging storage facilities at local third-party warehouses.

Customs clearance: Imports and exports require permits and documents to function properly. However, these documents can be easily manipulated by freight forwarders, although special permits called customs permits are needed for this. These licenses are not for the average person and so companies turn to freight forwarders to manage their shipping processes. Once the shipper obtains a new customs clearance, they will automatically be required to process the complete documentation required for the shipment.

2.4 Factors Affecting the Freight Forwarding Industry

Global economic instability is another factor affecting the shipping industry. All these external causes are overshadowed by internal problems that hurt businesses, whether large or small transportation companies. According to Chef Magazine (2022), the following factors affect the transportation industry:

Shipping costs: The common currency for international trade is the US dollar. The US dollar exchange rate changes daily. This affects shipping rates, as they can change at any time. This not only affects the price of transportation services, but also affects shoppers when the price of goods increases. In addition, when using expensive payment methods like wire transfers, huge fees are added to the overall cost.

Fees and Service Charges: Different countries have different fees to be paid both upon boarding and at destination. As a result, some ships stay at sea because they cannot afford maintenance or transportation costs. This lack of standardization of port fees and service charges creates uncertainty and expense for shippers.

Staff shortages and retention: Due to uncertainty in the industry, recruiting and retaining staff present serious challenges. Due to seasonal changes, many small ships remain moored and operate only during rough seas. For these reasons, people are afraid to enter the field, leading to a shortage of personnel.

Government Regulations: There are applicable regulations imposed by federal, state, and local governments on trucking companies. These rules are not to be taken lightly, and failure can have serious consequences. This makes the whole cost issue all the more acute.

Transport Infrastructure Issues: Even if all of the above problems are brought under control, there is still a major problem of transport infrastructure. Not all roads and networks used by transit services are in optimal condition.

Volatility of the Oceans: Many goods are transported by sea vessels. This is extremely unstable as there are a large number of factors that directly affect the cost. Prices and contracts are constantly changing, which means that carriers cannot understand their cost structures. This makes it difficult for them to make reliable offers to their customers.

2.5 Physical Distribution Challenges experienced by freight forwarders

Much of the delay experienced by developing countries is due to a lack of coordination between importing and shipping countries, where goods are often at seaports waiting for vehicles from offshore countries to arrive to arrange transportation goods inland. It can be argued that while cargo may be waiting to be shipped inland, vehicles also have to pass through various checkpoints to reach the port, and even then they often have to wait even days to arrive goods are loaded. Due to delays in inspection, documents and customs clearance fees must be paid before the goods can be shipped. As a result, the researcher admits that this becomes a particularly big challenge, especially when the port delay has been resolved, forwarders still have to go through many different inland shipping points to deliver the goods to the final destination. Therefore, reducing delays at border crossings, port inspections and checkpoints will contribute to facilitating the movement of goods through transshipment points.

As Ethiopia is a landlocked country with few transit corridor options, it faces a difficult challenge due to its heavy reliance on cross-border trade relationships with other countries. Neighbor country. For landlocked countries to transport goods through transit corridors, they must not only have good political relations with neighboring countries, but also depend on peace and stability as well as good practice. That being said, it is easy to see that if there is a conflict between Ethiopia and its neighbor, the neighboring country could easily blockade the border or introduce legal barriers to trade. As a result, freight forwarders rely heavily on peace treaties that need to be respected in order to continue their operations.

2.6 Measurement of freight forwarding service efficiency

According to Go Freight Inc (2023), the performance of a freight forwarding company can be measured based on the following:

• Unit cost: Calculate your service delivery cost per shipping unit, such as per cubic meter or per kilogram, to determine how efficiently you're using your resources.

• Capacity Usage: Measure the percentage of your capacity being used, such as the percentage of fleet or warehouse space used, to gauge your operational efficiency.

• **On-time delivery rate:** Track the percentage of shipments delivered on time and compare it to industry standards to gauge the efficiency of your shipping and logistics processes.

• **Customer Satisfaction:** Measure customer satisfaction using metrics such as Net Promoter Score (NPS) or customer survey responses to gauge service and support effectiveness support your customers.

• **Operating Expenses:** Analyze your operating expenses, such as wages, rent and fuel costs, as a percentage of your sales to determine the overall efficiency of your business. It should be noted that the carrier's performance can vary depending on various factors, and to get a complete picture of the business, a range of measures should be employed. You should regularly monitor and evaluate your performance to identify opportunities for improvement and maintain a competitive advantage

2.7 Forwarding and Logistics Services

Global freight forwarders often face technical barriers to accessing overseas markets. Many countries require foreign operators to have a license or license to operate in their territory. As licenses are often difficult or expensive to obtain, many global freight forwarders are engaged in creating a global network of partnerships to provide customers with door-to-door delivery services. Licensed foreign operators are often required to pay a deposit significantly higher than what local operators are required to pay. This penalty can have a detrimental effect on foreign SMEs that can obtain high-quality services at competitive prices, which will stimulate local practices in developing countries develop. Today, transport intermediaries in developed countries largely reap the financial benefits of providing transport support services for door-

to-door transportation services. The competitiveness of these companies, the shipping management system, international coverage, liability provisions and the support of financial institutions and insurance companies contribute to the unification value of companies from major developed countries. To build similar global capacity, developing countries need to create a competitive landscape in domestic transport services and intermediate transport services that will allow freight industries to thrive under competitive market pressure and open access to international networks. Highly qualified, competent and efficient transport intermediaries operating in an improved institutional environment help reduce overall transport costs and increase the country's competitiveness.

The development of transport and logistics services is crucial for developing countries to meet the needs of an increasingly complex international trading system. Overall, there has been a shift in focus from the transactional aspects of managing and coordinating shipping operations to integrated supply chain management that enables on-time, consistent, and cost-effective deliveries expense. Compared to developed countries, service in developing countries may be of poor quality and may not meet the standards of recognized associations such as the International Freight Forwarders Association (FIATA). As a result, goods are often lost, damaged or delayed, creating additional costs for the shipper. (Molanr and Ojala, 2003).

2.8 Transportation & the Essence of Transport in freight forwarding

Transportation is an important element of strategic logistics management. Transportation includes all modes of transport such as air, rail, sea and truck. Transport is the movement of capital goods and services from one region to another, both at customs and at exit. It can also involve moving from one node to another in the supply chain. It also allows access to new markets outside of manufacturing. (Deshmukh, 2004) Therefore, in order to effectively manage this transport system, it is necessary to create a low-cost form of transport first. In other words, the highest level of customer service at the lowest price leads to business growth. The transportation system has a strategic impact on a company's efficiency. Therefore, failure of the best sweat regime can directly affect business growth. Since higher shipping costs lead to higher prices, this has a direct negative impact on customer satisfaction. The three mentioned factors should be discussed below (Gatom and Walters, 2003).

The efficient operation of businesses in most sectors of the economy requires a good means of transportation. The proposed definition clearly explains what transport is: “Transport is a set of activities involving the movement of people and material goods by suitable means. It plays a very important role in the provision of logistics services due to the transportation of goods and the organization of ancillary services." Movement in the economy allows for the exchange of goods and services." in industry, construction, etc.) And finished products for personal consumption” (Pracha szoborova, 2008). Its main function is transportation, including the period of payment remains at the center of transportation, traffic and parking. Other activities take place in the collection and transportation area: loading and unloading, as well as short- or long-term storage of goods. Besides moving, transportation includes additional services like logistics, transportation, control, etc. These services are associated with the organization and management of tourism processes and are therefore immaterial services (Neider, 2006). Transportation management is the most important thing in logistics. Transportation costs typically account for more than a quarter of logistics costs (Kisperska-Moron and Krzyzaniak, 2009).

The company's transportation manager is responsible for the decision to use his own vehicle or an external vehicle, including the selection of specific vehicles and specific routes to transport goods. Employees must be aware of shipping costs and applicable laws and regulations regarding transportation, as well as know how to manage human and financial resources. Managers need to consider overall business and logistical goals (Dima, Man, & Vladutescu, 2012). The selection of the shipping method or freight is only the first step, the next step is an order specifying the type of goods and its quantity, a detailed definition of the term, the type of shipping or special requirements. Another area of activity is the preparation of shipping documents (most importantly bills of lading and bills of lading). A consignment note is a contractual document between the sender and the carrier that defines the terms and conditions of the carriage service.

2.9 Logistics in the global world

From a global perspective, the movement of commerce across the globe has seen a well-coordinated transport network through economic liberalization, allowing businesses in the industrial and Retail sales achieved significant growth, especially in developed countries (Schramm, 2003). Over the years, most developed countries have been able to develop their economies through a global village access network where importers and exporters from Europe, China, Asia, China East, Japan, and African countries interact online and establish trade agreements involving the movement of large volumes of trade using several modes of transport that are consolidated by several actors as freight forwarding companies (Schramm, 2003). Transport logistics operations determine the efficiency of shipping products to international markets, regardless of distance, as long as they are well coordinated and transported quickly, reliably and in an economical manner the most costly (Tseng et al., 2005).

The shipping sector accounts for the largest share of global trade, accounting for 90% of international business volume. Large shipping lines carry huge volumes of trade between ports and are complemented by multimodal inland transport services such as rail, road and inland waterways (Grosso et al., 2014).

Just as the shipping industry is relatively cheaper in terms of freight, transporting goods from the port to the inland is quite difficult in terms of cost. Hartzenberg (2011) illustrated that shipping a car from Japan to Abidjan can cost US$1,500 including insurance, while the cost of transporting the same car from Addis Ababa to Abidjan will cost US$5,000.

Djankov et al. (2006) further observed that it takes 116 days to move an export container from a factory in Bangui (Central African Republic) to the nearest port to handle the logistics for the export. Goods and similar export formalities will take only 5 days from Copenhagen and 6 days from Berlin. Again, this confirms to some extent the logistical disparity between developed and developing countries.

2.10 Logistics in developing countries

The most important aspect of transportation concerns its ability to convey and facilitate the movement of international trade and passenger traffic. The efficiency of the transport logistics system provides economic and social opportunities that lead to job creation, market access for their trade and reduced costs of doing business, just like the economies of other countries. Countries in Europe, the United States, and Japan and China (Rodrigue, 2013). The World Bank (2013) found that the transport strategy points to support for developing countries by encouraging public and private investment in infrastructure to overcome the physical challenges of the post-war climate. Transportation needs, which will affect the free movement of goods and services and increase trade facilitation. Some of the infrastructure improvement initiatives in South Africa include the North-South Corridor program led by both SADC and the Common Market for East and South Africa (COMESA) together with countries in the region focused on the rail network has a comparative advantage by road (African Development Bank, 2011). The concession of the Nacala Railway in Mozambique and the Central and East African Railway in Malawi is proving to be a good development in terms of public-private partnership initiatives to improve infrastructure, which will lead to a business environment is better in these two countries (Murithi et al., 2011).

2.11 Logistics in sub-Saharan Africa

Transport logistics in sub-Saharan Africa is overshadowed by a small, fragmented national market comprising 16 landlocked countries (Hartzenberg, 2011). The landlocked countries are Mali, Burkina Faso and Niger in West Africa; Chad, Central African Republic and South Sudan in North Central Africa; Ethiopia, Uganda, Rwanda, Burundi in East Africa; Malawi, Zambia and Zimbabwe in Central Africa; and Swaziland, Botswana and Lesotho in southern Africa.

Hartzenberg (2011) has noted that there has been a growth of African governments in the region towards trade liberalization and regional integration as an important development strategy that can promote trade and invest with traditional partners like Europe Union and emerging markets such as Central Asia, the Pacific and China. For example, during the civil war in Mozambique, Malawi was forced to reroute 95% of its trade through the ports of Durban

and Dares Salaam which normally pass through Beira and Nacala, resulting in very high costs (Snow et al. ., 2003).

This literature review examines two main theories, the Economic Theory of Transaction Costs (TCE) and the Resource-Based View (RBV), to evaluate the theoretical framework of the study and support and interpret the results

2.12 Transaction Cost Economics (TCE) Theory

Transaction cost economics (TCE) is a theory that explains why firms exist and how they are organized. It argues that firms are formed to reduce transaction costs, which are the costs of exchanging goods or services between economic actors. Transaction costs can include the costs of negotiating contracts, monitoring performance, and resolving disputes. It also argues that firms are organized hierarchically to reduce transaction costs. Hierarchical organizations have a clear chain of command, which allows for more efficient coordination and control.

The TCE has been used to explain a variety of organizational phenomena, including vertical integration, outsourcing, and the choice of governance structure.

According to Xu and Xia (2008), humans are limited in their reasoning abilities and are often selfish. They argue that humans will not hesitate to harm others if they believe it will benefit them in some way. This natural human instinct is called opportunism. The opportunists who can increase their profits will dare to violate all warnings, give false information for the purpose of deceiving others, intending to return a lot of information. In such a situation, adopting measures to limit opportunistic behavior makes economic sense for the economy and will incur new costs.

According to Cao and Shang (2013), TCE argues that firms will choose to organize their inter-organizational activities in a way that minimizes the total cost of production and transaction costs. The decision of whether to use vertical integration or a market mechanism depends on the relative costs of monitoring the partners. These costs arise from the partners' limited rationality and uncertainty, which can lead to self-interested behavior and opportunism. By integrating processes and building mutual trust, companies can reduce the costs associated with opportunism and oversight in market transactions, thereby decreasing the likelihood of counterparties acting opportunistically. Transaction cost theory has been applied to the question of why firms exist.

However, as companies increasingly operate in networks and supply chains become more complex and lengthy, a broader application of cost theory may be necessary for transactions (Platje, 2013).

2.13 Resource- Based View (RBV) Theory

The resource-based view (RBV) theory of the firm suggests that a company's resources and its ability to use those resources to achieve a sustainable competitive advantage are key to achieving superior performance. Resources can be physical, financial, human, or organizational. They are the inputs that a company uses to produce its products or services. According to Liu et al. (2010), RBV theory argues that firms with valuable, rare, inimitable, and non-substitutable resources are more likely to achieve sustainable competitive advantage. This is because these resources are difficult for competitors to imitate or acquire, which gives the firm a unique advantage in the market. Capability is the ability to use a company's resources, often in conjunction with the use of organizational processes, to achieve a desired goal. Firms have unique characteristics that arise from the complex interactions of their resources. These characteristics can include informational processes, material assets, or immaterial assets. Over time, these characteristics can evolve and lead to a sustainable competitive advantage. This is the theory of the resource-based view (RBV), which was first proposed by (Abadi and Cordon, 2012)

Excellent logistics can help businesses provide convenience to customers by delivering products and services at the right time, place, quantity, form, and ownership. This can be achieved through strategic planning, efficient management, and effective resource allocation. When customers are delighted with the value they receive, they are more likely to do business with the company again. The business's increasing focus on agile response systems, effective consumer feedback, and just-in-time sourcing suggests that they are interested in providing after-sales service. Special needs are emerging as valuable factors in developing business strategy. These programs focus on making logistics a core competency or strategic resource for the business. They do this by ensuring that products are available when customers need them, that deliveries are made on time, and that product failures are minimized. This helps to reduce product loss, sales, and returns/complaints, which ultimately leads to increased

customer satisfaction. As product differentiation diminishes, service capabilities quickly become the primary means of differentiation for businesses.

When logistics systems are designed to meet the needs of customers, they can give companies a competitive edge. This is because effective logistics can help companies to reduce costs, improve delivery times, and increase customer satisfaction (Olavarrieta and Ellinger, 1997).

2.14 Drivers of Higher Transaction Costs of freight forwarding in Developing Countries

To take advantage of the opportunities presented by the international trading system, developing countries must respond to the needs of complex production and distribution networks that prioritize speed, reliability and efficiency. The different stages of a commercial transaction can increase the final cost of the goods at the destination. In general, the costs of commercial support services can be divided into several categories: (Molanr and Ojala, 2003).

Freight freight by air, sea, rail and/or road

- Use of infrastructure and facilities for handling and transshipment of goods
- Customs and border gate procedures
- Transport intermediaries
- Finance and banking expenses related to trade assurance and letters of credit

Many of these factors relate to different modes of transport (sea, air or road), the cost of ancillary services, and the consequences of inadequate market competition in this method field. Other cost drivers include customs, banks, transport intermediaries and costs related to overall weak capacity to provide effective trade support services; they are discussed on the basis of secondary sources. Higher cost factors by mode of transport.

There are a number of factors common to developing countries that have led to the relative increase shipping costs, regardless of mode of transport. These factors are often related to the economic and geographical realities of many developing countries. (Molanr and Ojala, 2003).

- Distance with trading partners:
- Low commodity value/shipping cost ratio:
- Low export volume

Higher shipping cost factor

From the port of origin to the port of destination, several factors can affect the cost of ocean freight, including: (Molanr and Ojala, 2003).

- Orientation imbalance;
- Limitations of sabotage;
- International shipping models that require transshipment and the use of a transshipment service;
- Ancillary service costs; and
- Anti-competitive practices by the public and private sectors. Air transport drivers have higher costs

The use of air freight as the center of a new logistics system has been identified and is increasing significantly. Countries are investing in technology to meet growing demand, but have not significantly changed the way they manage contracts for the carriage of goods by air. Several important factors affect the cost of air freight from developing countries. These include: (Molanr and Ojala, 2003).

- Carrying capacity and route imbalance
- Schedule changes and cancellations
- Seasonal inquiry
- Goods handling, facilities and operating costs
- Bilateral agreement and right of landing
- Additional agents

Drivers of high trucking costs

Road transport has always been an important part of international trade, controlling the movement of goods to airports and seaports, and is a major form of trade between neighboring countries and neighboring countries landlocked country. The importance of inland trucking as a means of ensuring smooth communication between ports and inland waterways, as well as rail and road systems. The automotive component of a business transaction can have a significant impact on the overall transportation costs of a business transaction. Several factors can affect the actual cost of motor vehicles in a country. These include: (Molanr and Ojala, 2003).

- Inland road transport conditions
- Poor road conditions, and
- Problems faced by landlocked countries.

Non-modal elements of higher transaction costs

Several factors surrounding the actual movement of goods, not specifically related to direct transportation operations, can still have a significant impact on overall costs and shipping speeds. Some involve legal formalities such as customs and documentation while others involve logistics and banking and financial procedures. In many cases, the lack of institutional capacity and regulatory policies can lead to higher costs and delays.

Customs and Borders: In many developing countries, customs procedures can be a major barrier to trade due to inefficient procedures and corruption.

Weak Customs Procedures: Developing countries are notorious for inefficient and sometimes erratic customs practices that delay the movement of goods. Weaknesses and characteristics of customs practices in developing countries that lead to inefficient and costly clearance of goods include:

Inappropriate Customs Practices - Inappropriate customs practices, including the arbitrary interpretation of customs regulations and the application of inspection procedures, are considered to be a major obstacle to the expansion of trade and expenditure fees for international shippers. Inefficient customs practices can sometimes be attributed to the ignorance of inspection procedures by officials conducting inspections, which can lead to undue delay of goods at shipping points transfer.

Fact Checks – Another problem with customs procedures in developing countries is their overwhelming reliance on time-consuming physical checks. This can lead to cargo backlog, truck queues at the border (resulting in higher fuel costs and increased breakdowns), and handling or storage fees for goods that need to be handled transferred from the means of transport to the inspection site or store until the time of inspection

Issues with customs documentation – Other important non-transportation factors that drive transaction costs higher include data and document sharing requirements. In multi-language, multi-format, and multi-copy workflows, delays in the document process can significantly

increase transaction costs. The impact of customs formalities on export formalities is much more pronounced than on import formalities, as import processing and tax collection generate revenue. Export procedures are generally simpler than import procedures, without the hassle of valuing goods and strict health and safety checks.

Lack of Automated Systems - The lack of an automated customs IT system and connectivity between customs locations is a major obstacle to the free movement of goods. Automated systems promote well-defined customs procedures, help eliminate abusive customs practices and unusual payment mechanisms, and improve operational efficiency. Molnar and Ojala 2003).

Customs and corruption: In countries with limited facilities, high congestion, and minimal transparency, the widespread need for bribes to expedite the movement of goods is more likely. The authors of a study on Mozambique's manufacturing practices found that 45% of respondents were asked to pay or paid a fee not required by law. 16 There seems to be a strong correlation between a country's "logistic friendliness" (easiness to arrange international freight operations to/from a particular country) and the degree to which corruption exists.

Poor regulatory information dissemination: Predictability and consistency are the cornerstones of competitive transportation and logistics systems. Accurate, accurate, reliable and timely information on trade regulations is essential for trade service providers to plan and make decisions regarding the movement of goods from one place to another from one country to another. In many developing countries, information on commercial laws, procedures and documents is not available to shippers, freight forwarders and international carriers. (Molanr and Ojala, 2003).

Transport intermediaries

The effectiveness of international transport depends on the operator's ability to overcome various institutional barriers. While door-to-door delivery represents an attempt to create a unique bond between buyer and seller, there are still many people involved in the process of moving goods across borders. With more than 40 transport intermediaries involved in a single international transaction, the knowledge, skill and efficiency of these operators are essential for on-time delivery and competitive pricing.

2.15 Empirical literature review

The researcher was limited in their ability to find studies on this topic from an Ethiopian perspective, so they had to focus on continental and global experiences. They found that shipping is an important part of the customer service philosophy (Frazelle, 2002), as it connects the supplies identified during the procurement process with the customers who need them.

Frantisek (2003) defines transportation as a fundamental part of logistics, the process of moving goods from suppliers to consumers. It is the link between different processes that convert resources into useful products (Fair, M. and Williams, 1981). According to Frazel (2002), the goal of transportation is to connect all collection and delivery points at the lowest possible cost while meeting customer service requirements and the limited availability of transportation infrastructure. On the other hand, Tyndall and colleagues (1998), the most important advantages of modern logistics methods lie in the improvement of the rapid and frequent movement of goods and materials between countries. , instead of reducing costs. A study by Bemnet found that transportation costs in Ethiopia are significantly higher than the world and African averages. For example, in the apparel industry, transportation costs account for 28% of added value, compared to 6.1% in the world and 15 to 20% in Africa.

A 1991 World Bank report found that well-developed transportation and communication systems are essential for the efficient flow of goods and information. However, research shows that infrastructure in sub-Saharan Africa is often poorly managed and maintained. For example, until recently, more than half of the region's paved roads and 70% of its unpaved roads were in poor condition.

Geoff (2006) found that a well-established transportation system can improve efficiency, reduce costs, and increase customer service. Tilahun (2014) found that Ethiopia's maritime delivery sector is facing challenges, which is hindering international trade. Fasika, Klaus, and Marcus (2014) found that lengthy delays in customs and port handling, as well as complex price lists for imported products, are creating logistical challenges for businesses in Ethiopia. They also found that key delivery terms include inconsistencies in raw fabric quality, loss of local suppliers for imported items, and long handling and shipping times due to bureaucracy.

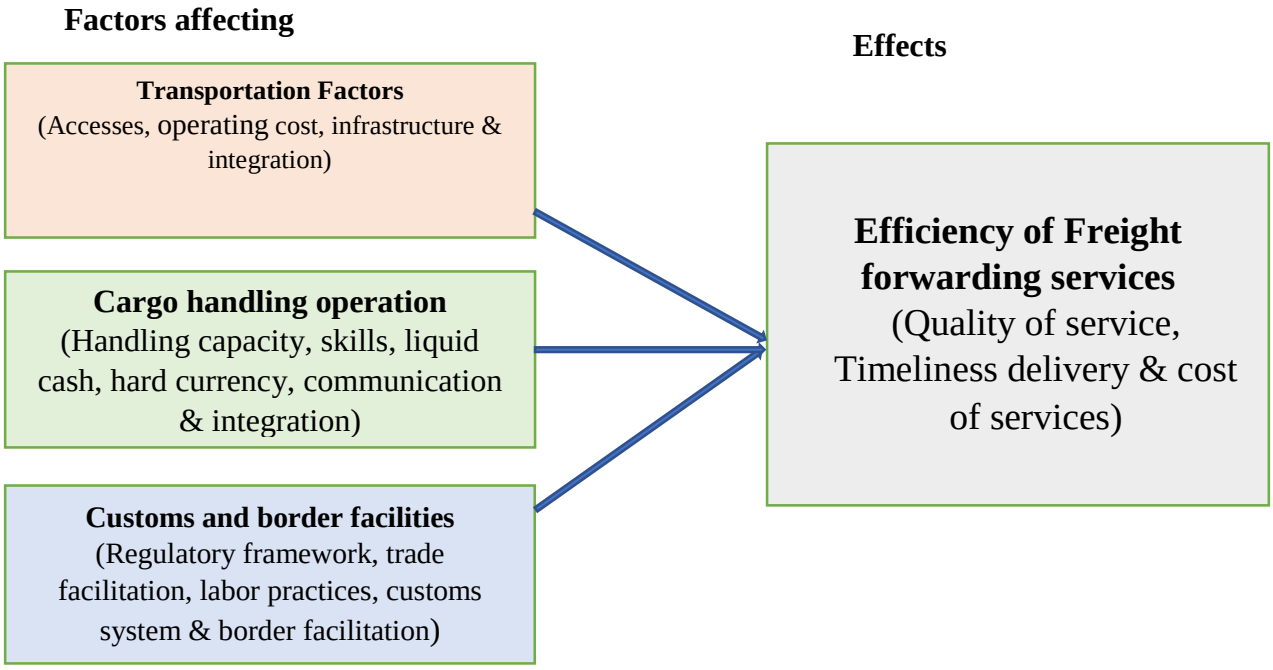
Ethiopia's landlocked status and outdated transport infrastructure make shipping goods expensive and difficult. This has a negative impact on the country's competitiveness, as businesses are at a disadvantage when it comes to exporting their products. A study by Birkinesh (2012) found that excessive domestic transportation costs, demanding packaging conditions and port hubs are key challenges that footwear businesses in Ethiopia face in order to be competitive.

The leather production sector in Ethiopia faces additional costs due to logistical challenges (Dinh, Hinh, 2014). The biggest barrier is the long import period, as timely imports of chemicals and inputs are essential for the production process. A key informant in the tanning sector said that importing chemicals from Italy to Ethiopia can take one to two months. To address this challenge, the Bonded Warehouse Program has been linked to the existing export promotion rule, which allows chemical and other manufacturers, primarily based in foreign countries, to import their products into Ethiopia without paying customs duties until the products are exported Girum and Florian (2013) found that the "Declaration on preferential export tax programs No. 768/2012" introduced a number of measures to reduce reserves and create opportunities for businesses to import inputs and chemicals to produce goods for the export market. These measures included the use of bonded warehouse systems, which allow exporters to store imported materials without paying customs duties until the goods are exported. This approach has also been shown to reduce clearance times, unburnt fabric inventories and delivery delays.

2.16 Conceptual Framework of the Study

A conceptual framework is a blueprint for a research study. It helps the researcher to understand the research problem conceptually, and to define and operationalize the dependent and independent variables. This makes it easier to measure, process, analyze, and interpret the data. The conceptual framework should be aligned with the research questions, and theoretical model; the conceptual framework adopted for this study presupposes those factors that affect the efficiency of freight forwarding operation.

Figure 1 : Conceptual Framework of the Study



Source (Author, 2023)

CHAPTER THREE: RESEARCH METHODOLOGY

The study design is understood to mean shaping the conditions for data collection and analysis to combine suitability for research objectives and procedural economics (Kothari 2004). This chapter describes the study design, study methods, and study sample design. In particular, the procedures to be followed in research area selection, sample size, sample selection, and data collection are detailed. The chapter concludes with measurement, data acquisition, and analysis methods.

3.1 Research Approach

According to Mark et al. (2009:101), a mixed approach is used to allow the weaknesses of each technique to be covered by the strengths of another technique. According to Silverman (2000), before conducting any research, the research approach, as well as related concepts, theories, methods and methods should be clearly stated. The study used a combination of qualitative and quantitative approaches. Quantitative is numerical in nature and determined by assigning numerical values to responses, while qualitative is contextual and collected from field notes. Qualitative methods are used to collect data that can be described and supported by quantitative approaches.

In social research, such as this one, two main types of research approaches are concerned with the methods used. These are quantitative and qualitative research methods. They differ in many ways and depend on several factors such as research questions, research models, and methods. Above all, they must serve research purposes.

3.2 Research Design

A research design describes the overall plan of action that must be followed to achieve the research goals. This is achieved through methods and procedures for collecting and analyzing the necessary information (Zindieh, 2008:16). A casual research design is used for this study. A casual research design is used when researchers are attempting to determine a cause-and-effect relationship between two variables. The survey is conducted on a selected sample of a particular population. Robson (1993) notes that the term "survey" is often used for a research method that collects data from a particular population or a sample of that population and often uses questionnaires or interviews informal consultation as a survey tool. The researcher

developed a questionnaire and interviews tool to study the factors affecting the efficiency of freight forwarding operations in five selected freight forwarding companies in Ethiopia.

3.3 Population and sample

3.3.1 Population

The sample frame included representatives drawn from five selected major freight forwarders Packtra PLC with total employees of 75, Akakas Logistics PLC having total employees of 135, Green International Logistics Service PLC with total employees of 122, Panafric Global PLC with total employees of 152, and Pave logistics with total employees of 102. The total number of employees in the five freight forwarding companies is 586. From major stakeholders such as the Ethiopian Customs Commission, Ethiopian Maritime Authority & EFFSAA.

3.3.2 Sampling Technique

The probability sampling technique of simple random sampling was used to select questionnaire participants from the five selected freight forwarding companies. Judgmental non-probability sampling will be applied to include participants for interview purposes from the stakeholders including Ethiopian Customs Commission, Ethiopian Maritime Authority & EFFSAA.

3.3.3 Sample Size

Two major advantages of sampling are faster data collection and reduced cost (Singh and Maeku, 2014). When selecting a sample, researchers need to decide who and how many to interview, what events to observe and how much, and what recordings to study (Cooper and Schindler, 2014). Chuan (2007) notes that the three most common factors affecting sample size are population size, tolerable sampling error, and within-population variability in the variable of interest. According to Taherdoost (2017), the typical levels of confidence used are 95 percent while the margin of error used is 5% in management and social research. Using Yamane's (1967) formula to determine the sample size, the sample size was 238.

To include participants to respond to the questionnaire the sample is determined as:

$$n = \frac{N}{1+N(e)^2} = \frac{586}{1+586(0.05)^2} = 238$$

Where:

N= is the Population (586 was the Population for the Study)

1 = is the constant

e= is the degree of error expected, which is 5% or 0.05 (i.e. 95 % confidence interval.)

n = is the sample size?

Companies	Total population	Selected Sample size
Panafric Global PLC	152	62
Akkakas Logistics PLC	135	55
Pave Logistics PLC	102	41
Green International Logistics Plc	122	50
Packtra PLC	75	30
Total	586	238

(Source, EMA 2022)

The total sample for each forwarding companies will be distributed as

Packtra 75/586(238) =30

Akkakas 135/586(238) =55

Green International Logistics Service PLC 122/586(238) =50

Panafric Global PLC 152/586(238) =62

Pave Logistics 102/586(238) = 41

Concerning interviews one person responsible for sector activity from each stakeholder will be included in the sample

3.4 Data collection

Data were collected from various sources and both primary and secondary data collection methods were used. To collect primary data, researchers used a self-administered questionnaire method, and some of the questionnaire questions were obtained from other sources. The questionnaire will be distributed to selected shipping companies. A measured closed question containing items on a 5-point Likert scale represents 1 strongly disagree, 2 strongly disagree, 3 Neutral, 4 agree, and 5 strongly agree. In addition to primary data collection methods, this

study uses company profiles and secondary data sources from national and international publications to gather useful information from companies selected to participate in forwarding.

3.5 Data Analysis and presentation

To analyze responses collected from closed questions, researchers use a variety of formulas and statistical tools such as SPSS, depending on the data collected and research objectives. Therefore, data has both descriptive and inferential properties. Descriptive analysis is performed using central trend measures such as the mean (std). Deviation and percentage. In addition to this inference analysis, statistical tools such as correlation coefficients, multiple regression analysis, and ANOVA (analysis of variance) were performed.

3.6. Regression Model

In this study, multiple regression equations are usually based on two sets of variables: the dependent variable (the efficiency of the routing process) and the independent variable. Regression models with one dependent variable and many independent variables are called multiple linear regression Tabachnick (1996) and Buyukozturk (2002). Multiple regression also creates an equation that estimates the expected value of the dependent variable based on multiple independent variables. Multiple regression is used to find relationships between dependent and independent variables and to predict dependent variable values using gains for each independent variable unit. Gulden and Nese (2013). Researchers, therefore, use multiple linear regression models to find the most effective method. Overall, this study uses a variety of linear, theoretical, and hypothetical regression analyses to test the effects of predictor variables on relatives. According to the definitions given by many authors, a multiple regression analysis model that accounts for each explanatory variable attributed to a particular study is constructed as follows.

$Y= \beta 0+ \beta 1X1 + \beta 2X2 + \beta 3\ X3 + \varepsilon i$

Y is the response or dependent variable – efficiency of forwarding operation

X1= Transportations

X2= Cargo handling operation

X3=Linkage of customs and border facilities

β0 is the intercept term -constant which would be equal to the mean if all slope coefficients are 0. β1, β2, and β3, are the coefficients associated with each independent variable.
Ɛi is the error term (other factors) that may have an impact on the dependent variable
Validity assumption tests such as normality, autocorrelation, and correlation analysis with their features are performed before performing regression analysis. Each test is carried out by examining relevant literature, theory, and other ideas.

3.6.1 Pearson's Correlation Coefficient

In this study, Pearson's correlation coefficient is used to determine relationships between independent variables (transportation, cargo handling operation, customs, and border facility dependent Variable (efficiency of forwarding operation). Person correlation will be used to test the formulated hypothesis.

3.7 Model Reliability and Validity Test

Model fitting is the first part of the story of regression analysis by Penrose et al. (1985). Regression analysis is a statistical technique for determining the relationship between a single dependent (criterion) variable and one or more independent (predictor) variables. The analysis yields a predictive value for the criterion that results from a linear combination of the predictors.

3.7.1. Reliability Analysis

An instrument's reliability relates to its ability to provide consistent and stable measurements. The most common reliability coefficient is Cronbach's alpha, which estimates internal consistency by determining how all elements of a test relate to all other elements and to the test as a whole - internal coherence or consistency of the data. Therefore, to test the reliability of the Likert scale that will be used in this study, a reliability analysis will be performed using Cronbach's alpha as a measure. (Note that the confidence coefficient $\alpha \geq 0.7$ is considered appropriate or "acceptable" in most social science studies.)

3.7.2 Validity Test

Validity assessment determines the extent to which a model is an accurate representation of the real world for the model's intended use. The purpose of the validation is to determine the confidence in the predictive ability of the model compared to the experimental data from AIAA

(1998). Criterion-dependent validity is used to examine the performance of variables based on a criterion. Criterion-related validity with different types of validity generally predicts how an operation will perform based on Trochim's (2016) contract theory.

When measuring and interpreting a questionnaire, there are some specifications of the measuring instruments, for example the validity of the questionnaire. Validity of a measure means that it can measure the relevant specification and not some other variable. Content validity is used to measure the validity of the questionnaires in this study. For this purpose, the content of the questionnaire is prepared with reference to previous studies, theories and models related to the topic and research questions. After making changes, the content and visual validity of the questionnaire is confirmed by the consultant.

3.8 Ethical Issues of the Research

The researcher made sure that the respondent was willing to be interviewed and fill in the questionnaire before starting the data collection and never pressured anyone to give an explanation. However, the researcher tried to be systematic and make them find the right feedback. Only voluntary respondents were contacted, filled out the questionnaire and interviewed. The researcher explained the objectives of the study to the interviewees and explained that the feedback from the questionnaire and interview would be used for research purposes only and should never be used as a means of correction.

Finally, the researcher ensured the confidentiality of the proposals and will not reveal his identity after receiving the necessary proposals.

CHAPTER FOUR: RESULTS AND DISCUSSION

4.1 Introduction

This study was conducted to identify factors affecting freight forwarding operations in five selected forwarding companies in Ethiopia. As a result, this chapter presents the analysis and discussion of the data obtained from the survey in order to address the research questions raised in this chapter and supports the objectives of the research. There is no specific response rate that guarantees the objective representation of the population. Normally, most reviewers seek a response rate of less than 70% (Rubenfeld, 2004). A total of 238 questionnaires were distributed to five freight carriers selected in Ethiopia. Of the 238 questionnaires, 209 were returned to researchers. However, only 12 percent (29) of questionnaires were not collected, and researchers using questionnaires have an answer rate of 87.8 percent. This percentage is considered sufficient for research because it is higher than the general response rate rule.

4.2 Response Rate and Demographic Data

Table 1 : Response Rate and Demographic Data

Type		Frequency	Percent
Age	20-25	10	0.05
	25-30	61	0.29
	30-35	72	0.35
	35-40	49	0.24
	40-50	8	0.04
	50-60	12	0.06
	Total	209	100
Gender	Male	169	0.8
	Female	40	0.19
	Total	209	100
Education	Primary school	0	0
	Secondary school	15	0.08
	Certificate	32	0.16
	Diploma	45	0.22
	Degree	88	0.43
	Master	29	0.14
	Total	209	100
Experience	1-5 years	67	0.32

	6-10 years	89	0.43
	11-15 years	37	0.18
	>15 years	16	0.08
	Total	209	100
Responsibility	Manager	27	0.13
	Employee of the company	182	0.87
	Total	209	100

(Source, own computation 2023)

The survey instrument included five demographic questions to characterize the participant profiles. Questions include age, gender, education, experience and responsibility. Table 1 summarizes the participant profiles: 10 (5%) participants aged 20-25 years, 61 (29.6%) participants aged 25-30 years, 72 (35%) participants aged 30-35 years 49 (24%) in the 35-40 age category, 8 (4%) in the 40-50 age category and 12 (6%) in the 50-60 age category.

The general information provided by the respondents includes both personal and professional characteristics. Of the 209 respondents, 169 (80.8%) and 40 (19.2%) were men and women, respectively. As shown in Table 1, the educational background of participants in freight forwarding companies was 15 (8%) secondary education, 32 (16%) certificate holders, 45 (22%) diploma holders, and 88 (43%) degree holders and the remaining 29(14)% held a master's degree. It is noticeable that most of the respondents have an educational qualification. In addition, the experience relates to the number of years that employees have worked in trucking companies and the result shows that 67 (32%) were between 1 and 5 years old, 89 (43%) between 6 and 10 years and 37 (18%) were between 11 and 18 years old. 15 years and 16 (8%) over 15 years. It can therefore be generalized that 75% of the respondents are between 1 and 5 and between 6 and 10 years old. Regarding the responsibilities they take on in the organization, 27 (13%) indicated that they take on managerial roles in the company and the remaining 182 (87%) take on supporting roles in the organization, suggesting that most respondents do not hold managerial positions.

4.3 Descriptive Analysis on Factors Affecting the Efficiency of Freight Forwarding Operation

4.3.1 Transportation

Transportation is one of the most important factors in freight forwarding. Transportation efficiency can have a significant impact on the overall efficiency of the freight forwarding process. This section asks respondents their views on the transportation Factors Affecting the Efficiency of Freight Forwarding Operation in selected forwarding companies. The result is discussed below.

A. Road Transportation

Road transport is the movement of goods and people on the road by wheeled vehicles. It is one of the most popular means of transport in many countries and the main means of transport. Road transport has a number of advantages over other modes of transport. It is relatively cheap and can provide door-to-door service. It is also versatile and can be used to transport a wide variety of goods and people.

Table 2 : Response on Road Transportation

A. Road transport	N	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Total	Mean		Std. deviation
								Statistics	Std. E	Statistics
Current road infrastructure & convenient for transportation	Frequency	47	107	35	18	2	209	2.1	.06	.89
	Percent	22.4	51.2	16.7	8.6	0.9	100			
Competitive bidding & access to vehicles	Frequency	68	96	38	4	3	209	1.9	.05	.84
	Percent	32.5	45.9	18.1	1.9	1.4	100			
Efficiency of gov't offices in facilitating the transport service	Frequency	75	87	30	14	3	209	2.0	.05	.83
	Percent	35.8	41.6	14.3	6.7	1.4	100			
	Frequency	45	108	35	19	2	209	1.9	.06	.94

Uncertainty of transport rate/price	Percent	21.5	51.6	16.7	9.0	0.9	100			
Unprofessional labor practices	Frequency	61	97	37	14		209	2.1	.06	.89
	Percent	29.1	46.4	17.7	6.7		100			
Problem of delivering on scheduled time	Frequency	71	93	38	4	3	209	2.0	.06	.86
	Percent	33.9	44.5	18.1	1.9	1.44	100			
Vehicle operating costs	Frequency	75	83	33	15	3	209	1.9	.05	.85
	Percent	35.8	39.7	15.7	7.1	1.4	100			
Degree of relationship between agents carriers, customs, and shippers	Frequency	45	105	38	19	2	209	2.0	.07	.97
	Percent	21.5	50.2	18.1	9.0	0.9	100			
Electronic data collaboration	Frequency	54	100	41	14		209	2.0	.06	.90
	Percent	25.8	47.8	19.6	6.7		100			
Role of transport intermediaries in freight forwarding	Frequency	66	96	41	3	3	209	2.0	.06	.84
	Percent	31.5	45.9	19.6	1.4	1.4	100			
Strong mutual trust between company and transport intermediaries	Frequency	66	96	41	3	3	209	1.90	.050	.83
	Percent	31.5	45.9	19.6	1.4	1.4	100			

(Source, own computation 2023)

As shown in **Table 2**,the average number of responses indicates that road transport factors are significantly affecting the efficiency of freight forwarding operation that ranges between 2.1 and 1.9, which is between “strongly disagree” to disagree.

From this, the researcher concludes lack of convenient road infrastructure, lack of competitive bidding for service, lack access to vehicles, uncertainty of transport rate/price, unprofessional labor practices, lack of delivering on scheduled time, high vehicle operating costs and poor

communication between stakeholders are a major road transport factors affecting the efficiency forwarding operation. The researcher recommends several solutions to address road transport factors affecting freight forwarding performance: The Ethiopian government had better to invest in improving the country's road infrastructure. This includes building new roads, repairing existing roads, and improving drainage systems. The Ethiopian government had better to work to increase access to vehicles for freight forwarders. This could be done by providing subsidies or loans to help freight forwarders purchase vehicles. The government had better to work to reduce uncertainty in transport rates by establishing a system of regulated rates or by providing more information about transport rates. Freight forwarders had better to improve on-time delivery by investing in better scheduling and tracking systems. Freight forwarders had better to work to reduce vehicle operating costs by using more fuel-efficient vehicles or by negotiating better rates with suppliers. Freight forwarders has better to strive in improving communication between themselves and other stakeholders in the road transport sector.

B. Air Transportation

Aviation can be used to transport goods to and from remote areas that are not served by other modes of transport. Airfreight is a complex and regulated industry. Several factors can affect the cost of airfreight, including the weight and volume of the cargo, the distance traveled the urgency of the delivery, and the type of aircraft used. The respondents were asked about air transportation Factors Affecting the Efficiency of Freight Forwarding Operation and the result is discussed as below in 6 items as shown in the below tables

Table 3: Response on Air Transportation

B. Air Transport	N	SD	D	N	A	SA	Total	Mean		Std. deviation
								Statistics	Std. E	Statistics
Adequacy of flight per day/week available to major trading partner hubs	Frequency	50	103	37	17	2	209	2.0	.07	.99
	Percent	23.9	49.2	17.7	8.1	0.9	100			

There are integrated air carriers systems with customs & other concerned gov't offices	Frequency	1	53	99	41	15	209	2.0	.067	.86
	Percent	0.4	25.3	47.3	19.6	7.1	100			
Customs procedures for Air clearance are simple & easy	Frequency	39	94	68	5	3	209	1.9	.067	.95
	Percent	18.6	44.9	32.5	2.3	1.4	100			
There is a fair price determination for the service	Frequency	75	84	33	14	3	209	1.9	.059	.85
	Percent	35.8	40.1	15.7	6.7	1.4	100			
There is a high rate of Problems with delivery on the scheduled time	Frequency	46	105	39	17	2	209	2.1	.06	.89
	Percent	22.0	50.2	18.6	8.13	0.96	100			
There is electronic data collaboration available via electronic data exchange / EDI/	Frequency	2	107	35	18	47	209	1.9	.057	.83
	Percent	0.96	51.2	16.7	8.6	22.4	100			

(Source, own computation 2023)

As shown in **Table 3,** the mean air freight coefficient values range from 2.1 to 1.9 indicating that except access of air flights to major trading partner hubs and Air freight costs, air freight has had a positive impact through the integrated air system with customs and other relevant government agencies for efficient delivery time and electronic data collaboration with stakeholders quickly, reliably and efficiently for running of freight forwarding operation.

C. Sea Transportation

Ethiopia is a landlocked country in the Horn of Africa. It is the second-most populous country in Africa, after Nigeria. Ethiopia has a long history of trade and commerce, and it is a major regional economic power. Sea transportation is a vital part of the global economy, and it is important to understand the factors that can affect freight forwarding operations. Some of the most important factors include: The cost of shipping can vary depending on a number of factors, including the type of cargo, the distance it is being shipped, and the current market conditions. Freight forwarders need to be aware of these costs in order to provide accurate quotes to their customers. Shipping containers are a critical part of the sea transportation system, and they can be in short supply at times. This can lead to delays in shipping and can also increase the cost of shipping. Depending on the factors the respondents were asked about effect of sea transport on forwarding operation in 6 items as presented below.

Table 4: Response on of Sea Transportation

C. Sea Transportation	**N**	**SD**	**D**	**N**	**A**	**SA**	**Total**	**Mean**		**Std. deviation**
								Statistics	Std. E	Statistics
There is adequate shipping line agents to major trading partners	Frequency	54	94	39	22		209	2.13	.06	.92
	Percent	25.8	44.9	18.6	10.5		100			
Lack of accessing ports raising costs of transport service	Frequency	67	95	38	6	3	209	4.78	.03	.54
	Percent	32.0	45.4	18.1	2.9	1.4	100			
Lack of hard currency for shipping line agents is major factor in forwarding operation	Frequency	63	89	31	17	3	209	4.73	.04	.59
	Percent	33.0	42.5	14.8	8.1	1.4	100			

Lack of container is major factor in sea transport	Frequency	46	105	39	17	2	209	4.77	.03	.56
	Percent	22.0	50.2	18.6	8.1	0.9	100			
Lack of use of single delivery agent is major factor of sea transport	Frequency	50	101	41	17		209	4.79	.03	.53
	Percent	23.9	48.3	19.6	8.1		100			
There is high unpredictable cost and vessel miss schedule	Frequency	62	96	42	6	3	209	4.79	.03	.53
	Percent	29.6	45.9	20.1	2.8	1.4	100			

(Source, own computation 2023

As shown in **Table 4** above, respondents' mean scores sea transportation affecting the efficiency of forwarding operation ranged from 2.1 to 1.9, from "disagree" to totally agree, i.e. Lack of suitable shipping line agents for major trading partners, lack of access to our own ports, lack of hard currency for shipping line agents and port facilitation, lack of Containers, lack of use of a single delivery agent and unpredictable high cost and time to ship damage are major shipping factors affecting efficient shipping operations. To address the above issues, the researcher recommends that the Ethiopian government, freight forwarders and other stakeholders can use to solve the challenges of shipping by working with shipping companies, banks and other stakeholders, freight forwarders can help ensure goods are shipped efficiently and cost-effectively.

D. Rail Transportation

Rail transportation is a more efficient mode of transportation than road transportation because rail transportation can carry more goods at a lower cost. Rail transportation is a more efficient mode of transportation that can help to improve the reliability of shipping goods because it is less likely to be delayed than road transportation. Accordingly, the respondents were asked to whether rail transportation affects the forwarding operation in 6 items as presented below.

Table 5: Response on of Rail Transportation

D. Rail Transportation	N	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Total	Mean		Std. deviation
								Statistic	Std. E	Statistic
The railway infrastructure able to accommodate fast moving trains	Frequency	76	82	33	15	3	209	1.9	.067	.97
	Percent	36.3	39.2	15.7	7.1	1.4	100			
There is competitive bidding and access to rail transport service	Frequency	49	107	34	17	2	209	2.1	.06	.89
	Percent	23.4	51.2	16.2	8.1	0.9	100			
There is fair price determination of rail transport price	Frequency	59	101	37	12		209	2.0	.05	.83
	Percent	28.2	48.3	17.7	5.7		100			
There is problem of delivering on scheduled time in rail transport service	Frequency	70	93	40	3	3	209	1.9	.05	.84
	Percent	33.4	44.5	19.1	1.4	1.4	100			
There is strong degree of information exchange	Frequency	76	86	30	14	3	209	1.9	.06	.95
	Percent	36.3	41.1	14.3	6.7	1.4	100			
There is electronic data available through EDI	Frequency	141	50	15	3		209	1.4	.04	.69
	Percent	67.4	23.9	7.1	1.4		100			

(Source, own computation 2023)

As shown in **Table 5**, the average value of the of railway transportation system was between 1.4 and 2.1 which is an indication of poor railway transportation are affecting the efficiency

forwarding operation, therefore to improve the efficiency of freight forwarding operations in Ethiopia it's better to invest in rail transportation. This will help to reduce the cost of shipping goods, improve the reliability and the security of freight forwarding operation.

4.3.2 Cargo Handling Operation

Cargo handling operations are the activities involved in moving, processing and handling, coordinating the cargo from one mode of transportation to another, or from one storage location to another. These activities can include loading and unloading cargo, sorting and stacking cargo, and transporting cargo within a warehouse or terminal. An efficient cargo handling system can save your business time and money. You can reduce shipping costs by reducing the time it takes to load and unload goods. Additionally, an efficient cargo handling system can help improve customer satisfaction by ensuring that products arrive on time and in good condition. The efficiency of cargo handling operations can have a significant impact on the overall efficiency of freight forwarding operations. Inefficient cargo handling operations can lead to delays, damage, and loss of cargo.

The variable cargo handling operation rated by participants about existence of strong cargo handling operation in the sampled freight forwarding company employees. The variable was measured using nine related questions.

Table 6: Response on Cargo Handling Operation

Cargo Handling Operation	N	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Total	Mean		Std. deviation
								Statistic	Std. Error	Statistic
The company has capacity to handle all type of freight forwarding service	Frequency	72	100	30	5	2	209	1.88	.056	.81
	Percent	34.4	47.8	14.3	2.3	0.96	100			
The company has effective communication and real time information flow system internally with the customer	Frequency	105	60	35	9		209	1.7	.05	.80
	Percent	50.2	28.7	16.7	4.3		100			
	Frequency	97	71	38	3		209	1.7	.06	.88

The company has marketing team to find potential customers	Percent	46.4	33.9	18.1	1.4		100			
The company is capable of arranging a flexible delivery schedule to meet demand of customers	Frequency	123	42	35	9		209	1.6	.06	.90
	Percent	58.8	20.1	16.7	4.3	58.8	100			
Shortage of liquid cash and hard currency negatively affecting operational performance	Frequency	100	72	30	5	2	209	1.87	.056	.81
	Percent	47.5	34.4	14.3	2.3	0.96	100			
There are automated information and integrated database systems to manage cargo operation	Frequency	71	60	38	37	3	209	1.7	.05	.80
	Percent	33.9	28.7	18.1	17.7	1.4	100			
There is professional staff shortage and employee retention problem	Frequency	86	76	30	14	3	209	1.9	.06	.95
	Percent	41.1	36.3	14.3	6.7	1.4	100			
There is strong degree of integration between concerned government bodies , agents, customs, and shippers	Frequency	60	97	42	10		209	1.7	.06	.88
	Percent	28.7	46.4	20.1	4.8		100			
High involvement of different government organizations is negatively affecting efficiency of cargo operations	Frequency	138	49	21	1		209	1.67	.06	.90
	Percent	66.0	23.4	10.0	0.4		100			

(Source, own computation 2023)

In Table 6, the respondents who rated the average cargo handling for the improvement of transportation showed that they disagreed with the statements with the maximum mean (M = 1.88) and sd = 0.56). The general implication was that the participants agreed on the claims that there was a lack of healthy cargo handling practices. The results show that improvement is needed in this area. This is important because cargo handling is an essential part of freight forwarding operations. Freight forwarding companies can improve the efficiency and

reliability of their cargo handling operations by training their employees on proper handling procedures and investing in the industry. Freight forwarders should work with other stakeholders in the supply chain, such as shippers, carriers and customs authorities, to improve cargo handling. Using technology and improving communication with customers improves the efficiency of cargo handling operations.

4.3.3 Customs and border facilities

Customs aims to meet the needs of governments and cross-border traders without compromising the balance between facilitation and control of trade by upholding the regulations and laws that govern the movement of goods international. Trade Control and Facilitation activities have been given utmost attention by Customs to meet the expectations of Customs and Government in ensuring that goods traded at the border comply with the regulations of the authorities handling related to cross-border freight and processing times. Border goods should be as minimal as possible. The World Customs Organization (WCO, 2011) has shown that the efficiency of customs procedures has a great influence on the movement of goods across borders around the world. Therefore, customs must be able to modify its operating procedures to optimize trade facilitation and control.

The cumbersome trade procedures, customs and trade regulations are often cited as the main barriers to import and export for SMEs in developing countries. Indeed, large companies in these countries are better organized with financial and technical information for cross-border goods to navigate in a complex regulatory environment. But, even large Ethiopian companies face challenges when importing and exporting goods internationally due to inefficient customs procedures and complicated regulations related to customs and cross-border that country. (Business Doing – Wolrd Bank, 2015).

Customs and border facilities are important factors that can affect freight forwarding services in Ethiopia. If the customs and border facilities are not efficient, it can lead to delays in the movement of goods, which can in turn lead to higher costs for businesses. Additionally, if the customs and border facilities are not secure, it can lead to smuggling and other illegal activities. Accordingly 9 questions relating to operation of customs and boarder facilities in affecting forwarding operation were presented to participants. The identified different tools result is showed in Table below.

Table 7: Response on Customs and border facilities

Customs and border facilities	N	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Total	Mean		Std. deviation
								Statistic	Std. Error	Statistic
Government regulatory frameworks are convenient for effective freight forwarding operation	Frequency	59	89	42	19		209	2.1	.06	.91
	Percent	28.2	42.5	20.1	9.0		100			
Customs working systems are simple and clear to increase service efficiency	Frequency	62	95	42	10		209	2.0	.057	.83
	Percent	29.6	45.4	20.1	4.7		100			
Ethiopian customs authority is more focused on trade facilitation than trade law and regulation enforcement	Frequency	76	87	40	6		209	1.8	.05	.81
	Percent	36.3	41.6	19.1	2.8		100			
Customs system instability is negatively affecting freight forwarding operation	Frequency	97	60	42	10	97	209	1.7	.06	.88
	Percent	46.4	28.7	20.1	4.8		28.7			
Unprofessional labor practices and lack of accountability of customs officers are negatively affecting freight forwarding	Frequency	60	71	38	37	3	209	1.7	.05	.80
	Percent	28.7	33.9	18.1	17.7	1.4	100			
Is there integrated system and efficient border facilitation clearance times at specific locations	Frequency	70	93	40	3	3	209	1.9	.05	.84
	Percent	33.4	44.5	19.1	1.4	1.4	100			
Documentation required by customs is not simple and clear and is there excessive	Frequency	76	86	14	30	3	209	1.9	.06	.95
	Percent	36.6	41.1	6.7	14.3	1.4	100			
Expected payments match with tariff revenues	Frequency	107	49	34	19		209	2.1	.06	.89
	Percent	51.2	23.4	16.2	9		100			

Import/Export clearance processes / procedures are detailed and simple	Frequency	75	83	33	15	3	209	1.9	.05	.85
	Percent	35.8	39.7	15.7	7.1	1.4	100			

(Source, own computation 2023)

Table 7 above shows that the participants did not agree at all with the existence of efficient and convenient customs and border facilities for the smooth running of forwarding services**.** All nine items received a mean ranging from M=1.9 to M=2.1 with standard deviations from 0.8 to 0.9. The respondent result indicated that, Lack of convenient regulatory frameworks, low trade facilitation and high trade law /regulation enforcement, customs system instability, lack of skilled labor practices, lack of integrated system and efficient boarder facilitation creating affecting the efficiency of forwarding operation in Ethiopia.

To improve this sector the researcher recommend that it is better to invest in technology, such as scanners and electronic systems, which can help to speed up the process of clearing goods. Another is to train customs officials and border facilitator to be more efficient and effective in their work. Finally, it is important to improve coordination between different agencies involved in customs and border control. This includes coordinating between the customs authority, the border facilitator, and other relevant agencies. By improving coordination, it can help to reduce delays and improve the overall efficiency of the process.

4.3.4 Efficiency of Freight Forwarding Operation

Freight costs are a major factor affecting the efficiency of freight forwarding operations. It can vary depending on a number of factors, including the type of cargo being transported, the weight and volume of the goods, the distance transported, and the shipping method used. Delivery time is another important factor affecting the efficiency of freight forwarding operations. Customers often have specific requirements for their delivery time. Service provider companies must be able to meet these requirements to satisfy their customers. Operation Service quality is another important factor affecting the efficiency of freight forwarding operations. Customers want to be sure that their goods will be handled with care and arrive on time with reasonable price. Freight forwarders must provide high quality service to maintain customer satisfaction. Customs clearance is another important factor affecting the

efficiency of freight forwarding operations. Customs procedures may vary from country to country.

By considering all these factors, freight forwarders can improve their operational efficiency and provide better service to their customers. In this section, respondents were asked their views on the efficiency of freight forwarding operations, the results of which are described below.

Table 8: Response on Efficiency of Freight Forwarding Operation

Efficiency of Freight Forwarding Operation	N	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Total	Mean		Std. deviation
								Statistic	Std. Error	Statistic
Competence and quality of freight forwarding service are responsive	Frequency	53	105	31	19	1	209	2.09	.062	.89
	Percent	25.3	50.2	14.8	9.09	0.48	100			
Freight forwarding service time delivery is efficient	Frequency	57	99	43	10		209	2.02	.056	.81
	Percent	27.2	47.3	20.5	4.78		100			
The cost of freight forwarding service is reasonable	Frequency	66	96	39	6	2	209	1.95	.058	.83
	Percent	31.5	45.9	18.6	2.87	0.96	100			
The customs clearance process is efficient	Frequency	43	98	52	15	1	209	2.20	.059	.86
	Percent	20.57	46.89	24.88	7.18	0.48	100			
	Frequency	55	93	50	10	1	209	2.08	.059	.85

There is ease of arranging competitively priced cargo shipments	Percent	26.32	44.50	23.92	4.78	0.48	100			
The customer service system of company operation is responsive	Frequency	80	81	38	6	4	209	1.91	.063	.92
	Percent	38.28	38.76	18.18	2.87	1.91	100			

(Source, own computation 2023)

As presented in **Table 8** Participants' response regarding current performance of freight forwarding operation showed that a majority agreed that poor quality services, timeliness of delivery, high Cost of Freight Forwarding Operation, inefficient customs clearance process and lack of arranging competitively priced cargos are the reason for inefficiency of freight forwarding operation. Depending on the result the researcher suggests that Freight forwarders can improve quality of service by providing accurate and timely information, responding to customer inquiries promptly, and resolving problems quickly and can improve customs procedure by familiarizing themselves with the customs regulations of the countries to which they are shipping goods, using a customs broker, and filing all necessary paperwork accurately and on time. Developing strong relationships with suppliers and customers can help freight forwarders to improve communication and coordination, as well as to better understand the needs of their customers. This can lead to improved efficiency and customer satisfaction.

4.4 Correlation Analysis of Factors

The following table shows the correlation result of independent variables factors affecting forwarding operation with the dependent variable of efficiency of forwarding operation.

Table 9: correlation

		Transport	Cargo handling operation	Customs and border facilitation	Efficiency of freight forwarding
Transportation factors	Pearson correlation	1	.60**	.65**	.87**
	Sig. (2-tailed)		.00	.00	.00
	N	209	209	209	209
Cargo handling operation	Pearson correlation	.601**	1	.62**	.55**
	Sig. (2-tailed)	.00		.00	.00
	N	209	209	209	209
Customs and border facilities	Pearson correlation	.65**	.62**	1	.66**
	Sig. (2-tailed)	.00	.00		.00
	N	209	209	209	209
Efficiency of freight forwarding	Pearson correlation	.87**	.55**	.66**	1
	Sig. (2-tailed)	.00	.00	.00	
	N	209	209	209	209
**. Correlation is significant at the 0.01 level (2-tailed).					

(Source, own computation 2023)

The Pearson correlation was calculated to examine the relationship between the dependent variable efficiency of forwarding operation and the independent variables transportation factors, cargo handling, and customs and border facilities. As shown in **Table 9**, all independent variables have a positive correlation with dependent variables. Pearson correlation coefficient r (209) =0.87s p.01 and the index coefficient of "transport factors" are strongly related to the efficiency of the forwarding operation, followed by the "customs and border facilitation" r (209) =0.66 p.01 and the third is "cargo handling operation" r (209) =0.55 p.01

5 Regression Analysis

Standard multiple- regression analysis was conducted to evaluate the effects of various elements of transport, cargo handling, and, customs and border facility factors affects freight forwarding operation. These findings are explained below.

Table 10: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
	0.85	0.72	0.71	0.34
a. Predictors: (Constant), customs and border, cargo handling, transportation				
b. Dependent Variable: efficiency of freight forwarding operation				

(Source: Own Competition, 2023)

Table 11: ANOVA

Model	Sum of square	df	Mean square	F	SIG.
Regression	62.52	3	20.84	179.10	.00[a]
Residual	23.85	205	0.116		
Total	86.37	208			

(Source: Own Competition, 2023)

In table 9 and Table 10 the multiple regression of the dependent variable efficiency of forwarding operation and the independent variables transportation factors, cargo handling operation, and, customs and border facilitation led to significant correlations between ((3,205) = 179.10,p.001 and adjusted R squares of 0.72, indicating that about 72% of the deviations in forwarding improvement ratings of participants could be due to a linear combination of transport, cargo handling, customs, and border factors. Therefore, the ANOVA result shows that the model is integrated (.000<.05).

Table 12: coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
			Std. Error	Beta			Tolerance	VIF
	(Constant)	0.22	0.08		2.79	0.005		
	transportation	0.77	0.04	0.77	17.05	0.0	0.51	1.94
	Cargo handling operation	0.03	0.063	0.025	0.49	0.61	0.54	1.83
	Customs and boarder	0.15	0.043	0.16	3.56	0.04	0.48	2.04
	Dependent Variable: efficiency of freight forwarding operation							

(Source: Own Competition, 2023)

In Table 12, the multiple regressions also show that the independent variables transportation factors and, customs and border facility and cargo handling operation were significant at $p < 0.01$. In addition, the VIF measure of multicollinearity for the independent variables is less than 10, showing that there is no multicollinearity in the independent variables. In general, the model can be represented as

Efficiency of Freight forwarding operation= 0.77 (Transportation factors) + 0.025 (cargo handling operation) +0.16(customs and border)

Accordingly, as per the participants rating, a one unit increase in transportation factors mean rating, would improve the 'Competitiveness' by 0.77. On the other hand, a 1 unit increase in the participants mean rating of 'cargo handling' could have improve their mean success of efficiency of forwarding operation by rating by 0.025. Similarly, a 1 unit increase in the participants mean rating of customs and border facilities could have improved their mean success of enhancement of forwarding operation by rating by 0.16.

Finally, a test of the key assumptions of the multiple regression was performed using the scatterplot to test the homogeneity of the variance. It showed that the trend is centered on zero, but also that the variance around zero is evenly and randomly spread. We conclude that the linearity assumption and the heteroscedasticity assumption were satisfied. The

multicollinearity effect in the multiple linear regression model was also checked. The detailed coefficients in Table 19 show that the tolerance value was > 0.1 and VIF < 10 for all predictors.

The normality of the residuals was checked using a normal P-P plot. The chart shows that the points generally follow the normal line (diagonal) without much deviation. Finally, reliability was tested using Cronbach's alpha. The Cronbach alpha score is 0.97, indicating that there is high internal consistency of the items included in the questionnaire.

4.6 Qualitative Analysis of Interview Result from EMA, ECC & EFFSAA

4.6.1 Interview result from Ethiopian Maritime Authority (EMA)

Interview questions; is there any activity that Ethiopian Maritime authorities have been conducted to solve the factors that affect freight forwarding operations? Yes, the Ethiopian Maritime Authority (EMA) has conducted a number of activities to solve the factors that affect freight forwarding operations. These include:

Improving the efficiency of the port system. The EMA has worked to improve the efficiency of the port system by investing in new equipment and technology. This has led to shorter turnaround times for ships and cargo, which has made it easier and cheaper for freight forwarders to operate. The EMA has worked to develop new always to identify alternative transit corridors, which has given freight forwarders more options for moving cargo. This has helped to reduce costs and improve efficiency.

Providing training and support to freight forwarders. The EMA has provided training which has helped them to improve their operations. This has made it easier for them to compete in the global market. Encouraging investment in the logistics sector. The EMA has encouraged investment in the logistics sector, which has led to the development of new infrastructure and services. This has made it easier for freight forwarders to operate and has improved the efficiency of the overall logistics system. These are just some of the activities that the EMA has conducted to solve the factors that affect freight forwarding operations. The EMA is committed to providing a supportive environment for freight forwarders, and to helping them to succeed in the global market.

According to the Ethiopian Maritime Authority (EMA) officials they faces a number of challenges in solving the factors that affect freight forwarding operations in Ethiopia. These include:

Lack of infrastructure. Ethiopia has a relatively underdeveloped infrastructure, which can make it difficult and expensive to move cargo. This is particularly a problem in the hinterland, where there are few roads and railways. Poor logistics services. The logistics sector in Ethiopia is not as developed as it could be, which can lead to delays and inefficiencies. This is partly due to the lack of infrastructure, but it is also due to a lack of competition and regulation in the sector. Corruption. Corruption is a problem in Ethiopia, and it can affect all aspects of the economy, including the logistics sector. This can lead to delays, higher costs, and a lack of transparency. Political instability. Ethiopia has experienced a number of political crises in recent years, which has led to uncertainty and instability in the economy. This can make it difficult for businesses to plan and invest, and it can also lead to delays and disruptions in the logistics sector.

According to the officials despite these challenges, there are a number of opportunities for Ethiopian freight forwarding companies. The Ethiopian economy is growing rapidly, and this is creating demand for freight forwarding services. In addition, the Ethiopian government is investing in infrastructure, which will make it easier to transport goods to and from the country. As a result, there is potential for Ethiopian freight forwarding companies to grow and succeed. In order to overcome the challenges they face, Ethiopian freight forwarding companies need to focus on providing high-quality services at competitive prices. They also need to develop strong relationships with their customers and suppliers. In addition, they need to be aware of the latest trends in the freight forwarding industry and adopt new technologies to improve their efficiency.

4.6.2 Interview result from Ethiopian Customs Commission

Is there any activity that Ethiopian Customs Commission have been conducted to solve the factors that affect freight forwarding operations? Yes, the Ethiopian Customs Commission has been conducting a number of activities to solve the factors that affect freight forwarding operations. These activities include:

Infrastructure Investment: The Ethiopian Customs Commission has working with governments in infrastructure, such as roads, railways, and ports, to improve the efficiency of freight forwarding. For example, the Ethiopian Customs Commission has invested in the construction of a new customs clearance center at the Addis Ababa Bole International Airport. This new center has helped to reduce the time it takes to clear goods through customs. Streamlining customs clearance: The Ethiopian Customs Commission has streamlined customs clearance procedures to reduce delays and costs. For example, the Ethiopian Customs Commission has implemented a paperless customs clearance system. This system has helped to reduce the time it takes to clear goods through customs.

Training skilled workers: The Ethiopian Customs Commission has trained skilled workers in the freight forwarding industry to improve efficiency. This training center has helped to improve the skills of customs officers and has made them more efficient in their work.

Customs commission conducted number of reforms, reduce number of documents required, introduction of electronic single window has contributed to reduce cost of doing business.

The Ethiopian Customs Commission has also been working to improve the efficiency of freight forwarding by: Increasing the number of customs clearance officers: The Ethiopian Customs Commission has increased the number of customs clearance officers to reduce the time it takes to clear goods through customs.

Providing training to customs clearance officers: The Ethiopian Customs Commission has provided training to customs clearance officers on how to use the new customs clearance system. This has helped to improve the efficiency of customs clearance. The Ethiopian Customs Commission has made significant progress in improving the efficiency of freight forwarding.

However, there are still some challenges that need to be addressed. These challenges include: Corruption is a problem in Ethiopia, which can make it difficult to do business. The Ethiopian Customs Commission is working to address this problem, but it is a challenge that will take time to overcome. Lack of infrastructure: Ethiopia's infrastructure is not as developed as some other countries, which can lead to delays and inefficiencies in freight forwarding. The

Ethiopian government is working to improve the country's infrastructure, but it is a long-term project.

Despite these challenges, the Ethiopian Customs Commission has committed itself to improving the efficiency of freight forwarding. The Commission is working to address its challenges and is progressing in improving the efficiency of freight forwarding.

4.6.3 Interview result from Ethiopian Freight Forwarders and Shipping Agents Association (EFFSAA)

According to EFFSAA Officials, the main factors affecting the efficiency of freight operations in Ethiopia are:

- **Quality of Infrastructure:** Ethiopia has a relatively underdeveloped infrastructure, which can lead to delays and disruptions in shipping operations.
- **Efficient Customs Clearance:** Customs clearance in Ethiopia can be slow and bureaucratic, which can increase the time and cost of transporting goods.
- **Availability of skilled labor:** There is a shortage of skilled labor in the freight forwarding industry in Ethiopia, which can lead to delays and errors.
- **Use of technology:** The use of technology can help improve the efficiency of transportation operations. For example, using Electronic Data Interchange (EDI) can help speed up document processing.

According to EFFSAA Officials, the challenges faced by Freight forwarding industry that are affecting the efficiency of operation are:

- **Lack of investment in infrastructure:** The Ethiopian government has not invested enough in infrastructure, leading to delays and disruptions in transportation operations.
- **The complexity of customs clearance**: Customs procedures in Ethiopia are complex and time consuming, which can increase freight costs.
- **Lack of skilled labor:** There is a shortage of skilled labor in the freight forwarding industry in Ethiopia, which can lead to delays and errors.
- **Lack of awareness of best practices:** Many freight forwarders in Ethiopia are unaware of the latest industry best practices, which can lead to inefficient operations.

The best course of action that EFFSAA can adopt is to invest in training for its members to improve shippers' skills and reduce risks. EFFSAA is proposing that the Ethiopian

government invest in infrastructure such as roads, railways and airports and modernize customs procedures to reduce shipping delays and costs.

Generally, the interview result show that, The Ethiopian Maritime Authority (EMA) and the Ethiopian Customs Commission (ECC) have been undertaking a number of activities to address the factors affecting the movement of goods in Ethiopia. EMA and ECC are committed to providing an enabling environment for freight forwarders and helping them succeed in the global marketplace. They believe that, freight forwarders in Ethiopia face a number of challenges. Despite these challenges, there are still some opportunities for Ethiopian freight forwarders. Ethiopia`s economy is growing rapidly, creating demand for freight forwarding services. In addition, the Ethiopian government is investing in infrastructure, which will facilitate the movement of goods to and from the country. Therefore, Ethiopian freight forwarding companies have the potential to grow and succeed. To overcome the challenges they face, Ethiopian freight forwarders need to focus on providing high quality service at competitive prices. Furthermore, they must be aware of the latest trends in the freight industry and adopt new technologies to improve their efficiency.

CHAPTER 5: SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

5.1 Summary

As mentioned in the previous chapters, this research is conducted to identify identifying this research is carried out to identify factors affecting the efficiency of freight forwarding operations in five selected forwarding companies in Ethiopia. To this end, after reviewing various literature and previous studies, a research framework was designed and factors affecting the efficiency of freight forwarding operations were identified and analyzed. Based on the results of various data sources, various variables were discussed in the data presentation, as indicated in the methodology adopted for this study. Thus, the researcher has come up with the following summary of findings;

- As measured by the set of items, current road infrastructure, provision of truck transport service, facilitation of transport service by a government office, uncertainty of transport rate/price, unprofessional labor practices, problem of delivering on scheduled time, vehicle operating costs, degree of relationship between agents carriers, customs, and shippers and electronic data collaboration are major road transportation factors affecting the efficiency of freight forwarding operation. Transport intermediaries in freight forwarding play a vital role in facilitating the operation but need strong mutual trust between the company and transport intermediaries for the smooth running of the forwarding operation.
- The outcome of air transport as measured by integrated air carrier system, customs procedures for air clearance simplicity, delivery scheduled time, and electronic data collaboration participant's results show that the air transportation system was good with disagreement on the price charged and adequacy of flights per week on affecting the efficiency of freight forwarding operation.
- The outcome of sea transport suggests that there is a lack of adequate shipping line agents to major trading partners and a lack of accessing ports raising the costs of forwarding service. Lack of hard currency for shipping line agents, lack of containers, and lack of use of a single delivery agent, and high unpredictable cost and vessel miss

schedule are major sea transportation factors affecting the efficiency of freight forwarding operations.

- Out of the six items included in railway transport absence of competitive bidding and access to rail transport service, the problem of delivering on scheduled time, and the lack of a strong degree of information exchange are affecting the forwarding operation. However, the majority responded as they agreed that railway transportation had a fair price determination for the service.
- The general implication of cargo handling practices is that participants agree with the statements that reasonable cargo handling practices are lacking. The results show that improvement is needed in this area. This is important because cargo handling is an essential part of freight forwarding operations.
- Respondents' results indicate that, lack of a realistic legal framework, weak trade facilitation and high trade law/regulation enforcement, instability of the customs system, lack of labor practices Skilled workers, lack of integrated systems, and effective border facilitation affect the efficiency of transit operations in Ethiopia.

5.2 Conclusion

This research aims to identify the factors affecting the efficiency of freight forwarding operations in five selected forwarding companies in Ethiopia. The study used primary data, both qualitative and quantitative, using questionnaires and interviews to determine the factors affecting the efficiency of freight forwarding operations in five selected forwarding companies in Ethiopia. Analysis was performed using descriptive and inferential statistics. Finally, the general conclusions drawn from the study results are presented below.

- Road, air, sea, and railway transportation factors are major factors affecting the efficiency of freight forwarding operations in Ethiopia. These factors can all contribute to delays and inefficiencies in freight forwarding operations in Ethiopia. Is corroborated in the correlation and regression analysis, where participants indicated transportation factors are a highly correlated variable with forwarding operation with a Pearson correlation coefficient of 0.87 and which is also significant. Also in the regression analysis is the dominant factor among the three independent variables in impacting forwarding operation with a regression coefficient of 0.77.

- The second independent variable of cargo handling operation is measured by nine items including the company's capacity to handle all types of freight forwarding service, effective communication, and real-time information flow system internally with the customer, a strong marketing team to find potential customers, the capability of arranging a flexible delivery schedule to meet the demand of customers, automated information and integrated database systems to manage cargo operation, availability of professional staff and degree of integration between concerned government bodies, agents, customs, and shippers in which the participants do agree that there is generally week cargo handling performance in which it directly has an impact on the efficiency of forwarding operation. Weak cargo handling operations can lead to delays in the transportation of goods. This is because goods may have to wait longer to be loaded and unloaded from ships, trucks, and airplanes. This can add to the cost of transportation and can also lead to damage to goods. The outcome of the correlation analysis for cargo handling operation suggests that cargo handling is positively related to forwarding operation with a Pearson correlation of 0.55. The regression analysis, suggests that 'Cargo handling' has a positive coefficient of 0.025 and statistically in affecting forwarding operations.
- The third independent variable of customs and border facility as measured by nine items the participants generally believe that the existing operation of customs and border facilities were not good as related to the performance of forwarding operations. The inefficiency of customs, border facilities, and clearance procedures significantly affect the forwarding operation and objectives of trade facilitation. The correlation analysis of analysis shows that customs and border facilities is related to forwarding operation with a Pearson correlation coefficient of 0.66 and regression confirmed customs and border facilities related impacts forwarding operation with the coefficient of 0.16 and statistically significant.

In general, transportation factors, weak cargo handling, poor service quality, delivery speed, high cost of forwarding operations and poor customs clearance process are the main reasons for inefficient freight forwarding operation.

5.3 Recommendation

The objective of the study was to identify the factors that affect the efficiency of freight forwarding operation in Ethiopia in the case of selected forwarding companies. It is a proven fact that countries must have an efficient transport system, better cargo handling operations, and standardized border and customs facilities if they are to remain competitive in the business of commerce and transit. The conclusion of this study was made with 209 employees of 5 freight forwarding companies and the results showed that the freight forwarding activity in Ethiopia was substandard due to poor performance in the three variables used in the study. Therefore, this study proposed the following recommendations to overcome the observed limitations:

- Regarding, transport, it was observed that the existing road transport system, performance of sea transportations system, and the rail transportation system needs to redesign different working systems and improvement of infrastructural facilities for improvement of performance of forwarding operation. As an infrastructure provider, the Ethiopian government invests better in road, rail, dry port and terminal infrastructure in line with the multimodal transportation service to ensure efficient and effective performance of the multimodal transportation service. The government had better to work on increasing access to vehicles for freight forwarders. This could be done by providing subsidies or loans to help freight forwarders purchase vehicles. Freight forwarders should work to reduce vehicle operating costs using more fuel-efficient vehicles or by negotiating better rates with suppliers.
- The researcher recommends that the government better to integrate the systems with the transport sector, customs and border facilities and cargo handling.
- The researcher recommends that both government and forwarding companies often conduct a basic capacity-building program by training employees in the transport sector, customs and border facilities and cargo handling.
- The government is required to shorten the time frame for clearance and customs procedures for successful implementation of forwarding operations.

- The Ethiopian government expects to equip dry ports, terminals, and warehouses with highly modernized loading and unloading equipment to minimize the handling time of cargo in dry ports and obtain customs and infrastructure.
- Ethiopian airlines is recommended to increase adequacy of air transport flight per/week to major destinations and adjustment of fair price on air transport service. On the strong side Ethiopian airlines better to keep its strong reputations on other measurements.
- As the research finding suggests degree of relationship between agents carriers, customs, and shippers needs to be improved for delivering services on time. Developing strong relationships with suppliers and customers can help freight forwarders to improve communication and coordination, as well as to better understand the needs of their customers. This can lead to improved efficiency and customer satisfaction.
- Due to foreign currency shortages happening in the economy forwarding operational efficiency is affected negatively. Thus the researcher recommends the government to give attention to obtaining of hard currency to freight forwarding service like other sectors.
- The researcher also recommend the concerned customs and facilities offices to simplify government regulatory frameworks for convenient and effective freight forwarding operation

5.4 Limitation and suggestion for further study

This study's intent was to provide a broad picture of the factors affecting the efficiency of freight forwarding operations in five selected forwarding companies in Ethiopia. However, the study contains some limitations that need to be discussed. Although, from a methodological perspective, the total number of 209 participants and five companies was constitutes a relatively small sample for studding the freight forwarding service. This study and its results provide a basis for further discussions but more research in this area is needed before generalizing the research findings. Using a broader target population as well as using different methods should be done to expand and confirm the findings of this research. Future research also needs to explore The Role of Freight Forwarders in the Ethiopian Economy the effects of variables that were not measured in the current study, which can also directly or indirectly influence the country.

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Appendix 1

Survey Questionnaire
AAU School of Commerce Postgraduate Studies

A Survey Questionnaire for a research project to be conducted in partial fulfillment of MA in LSCM at AAU School of Commerce

Part 1. INTRODUCTION

Dear respondent,

This survey is required to study ***Factors Affecting the Efficiency of Freight Forwarding Operations in Ethiopia in the case of selected forwarding Companies***. Please note that the information provided will be kept confidential and used for academic purposes only. Your cooperation in completing the survey questionnaire by providing quire and reliable information is highly valuable and greatly appreciated. Thanking you in advance for giving your time and sharing your experience.

Sincerely, Ephrem Legesse

Instruction

➢ No need of writing your name

➢ For multiple choice questions indicate (√) sign in the appropriate block.

➢ For Likert scale type statements mark (√) sign only once for the given variables depending on your level of agreement.

1. Gender: A. Female **B.** Male

2. Age: A. <20 **B.** 21-30 **C.** 31-40 **41-50** **E. Above 50**

3. Educational qualification: A. High School B. **B**. Diploma **C**. Degree **D**. MA/MSc **E**. PhD

4. Position: A. Officer B. Senior Level C. Manager

5. Experience: A. Less than 5 B. 6-10 C. 11-15 D. Above 15

Part 2. Factors Affecting the Efficiency of Freight Forwarding Operation (Make tick Mark as √)

Please indicate your opinion regarding the following statements

1. Strongly Disagree (SD) 2. Dis Agree (DA), 3. Neutral (N),

4. Agree (A), 5. Strongly agree (SA)

	Factors Affecting the Efficiency of Freight Forwarding Operation Measurement Indicators for the independent variable (factors)	1 SD	2 DA	3 N	4 A	5 SA
	1. Transportation					
	A. Road Transport					
1	The current road infrastructure is modern & convenient for transportation					
2	There is competitive bidding & access to vehicles for the provision of truck transport services					
3	Different concerned gov't offices are efficiently facilitating the transport service					
4	There is an uncertain transport rate/price					
5	There are restrictive/unprofessional labor practices raising the costs of service					
6	There is a problem with delivery on a scheduled time					
7	Vehicle operating costs (including fuel price, spare parts & repairs) are relatively high & raising costs of transport service					
8	There is a strong degree of relationship between agents carriers, customs, and shippers					
9	There is electronic data collaboration available via electronic data exchange / EDI/					
10	Transport Intermediaries and brokers play an active role in the freight forwarding process					
11	There is strong mutual trust between your company & Transport Intermediaries					
	B. **Air Transport**					
1	Adequacy of flights per day/week is available to major trading partner hubs					
2	There are integrated air carriers systems with customs & other concerned gov't offices					
3	Customs procedures for Air clearance are simple & easy					
4	There is a fair price determination for the service					
5	There is a high rate of Problems with delivery on the scheduled time					
6	There is electronic data collaboration available via electronic data exchange / EDI/					

	C. **Sea Transport**					
1	There is adequate shipping line agents to major trading partner					
2	Since we have been landlocked country lack of accessing our port is raising the costs of transport service					
3	Lack of hard currency for shipping lines agents & or port facilitation is a major factor in freight forwarding operation					
4	Lack of containers is a major factor in sea transport					
5	Lack of use of single delivery agent /door-to-door agent / is a major factor for sea transport.					
6	There is high unpredictable cost & vessel miss schedule					
	D. **Railway Transport**					
1	The rail infrastructure able to accommodate fast-moving trains					
2	There is competitive bidding & access to Rail Transport					
3	There is a fair price determination for the service					
4	There is the problem of delivery on the scheduled time					
5	There is a strong degree of communication /information exchange					
6	There is electronic data collaboration available via electronic data exchange / EDI/					
	2. Cargo Handling					
1	The company has a capacity to handle all type of freight forwarding operation					
2	The Company has an organized marketing team to find new & potential customers					
3	The Company has effective communication & real- time information flow system internally & with the customer					
4	The company has capable of arranging a flexible delivery schedule to meet the demand of customer					
5	Shortages of liquid cash & hard currency are negatively affecting our operational performance					
6	There are automated information & integrated database systems to manage cargo operation					
7	There is Professional Staff Shortage & Employee Retention problem					
8	There is a strong degree of integration between the concerned gov't bodies, agents to carriers, customs, and shippers for efficiently handling the cargo operation					
9	The high involvement of different gov't organizations is negatively affecting the efficiency of cargo operations.					

3. Customs and Border facilities						
1	Gov't regulatory frameworks are convenient for effective freight forwarding operation					
2	Customs working systems (directives & circulars) are simple and clear to increase service efficiency					
3	Ethiopian Customs Authority is more focused on trade facilitation than trade law & regulation enforcement					
4	Customs system instability is negatively affecting our freight forwarding operation.					
5	Unprofessional labor practices & lack of accountability of customs officers are negatively affecting our freight forwarding operation.					
6	There is an integrated system & efficient border facilitation					
7	The documentation required by customs is not simple & clear plus there is excessive clearance times exist at specific locations					
8	Expected payments match with tariff revenues					
9	Import and export clearance processes/procedures are detailed and simple to use					
4. Dependent Variable (Efficiency of Freight Forwarding Operation)						
1	The competence and quality of freight forwarding services are responsive.					
2	The freight forwarding service's time delivery is efficient.					
3	The Cost of Freight Forwarding Operation is reasonable.					
4	The customs clearance process is efficient.					
5	There is the ease of arranging competitively priced cargo/Shipments.					
6	The customer service system of company operation is responsive.					

Thank You!!

Interview Questions

A. Ethiopian Maritime Authority

1. Is there any activity that Ethiopian Maritime Authorities have been conducted to solve the factors that affect freight forwarding operations?
2. What are the challenges that the Ethiopian Maritime Authority faces in improving the efficiency of freight forwarding?
3. What are the opportunities that the Ethiopian Maritime Authority has to improve the efficiency of freight forwarding?

B. Ethiopian Customs Commission

1. Is there any activity that Ethiopian Customs Commission have been conducted to solve the factors that affect freight forwarding operations?
2. What are the challenges that the Ethiopian Customs Commission faces in improving the efficiency of freight forwarding?
3. What are the opportunities for the Ethiopian Customs Commission to improve the efficiency of freight forwarding?

C. Ethiopian Freight Forwarders and Shipping Agents Association (EFFSAA)

1. What are the key factors that affect the efficiency of freight forwarding Operation in Ethiopia?
2. What are the challenges that the Ethiopian freight forwarding association faces in improving the efficiency of freight forwarding?
3. What are the best practices that the Ethiopian freight forwarding association can adopt to improve the efficiency of freight forwarding?

Appendix 2

Appendix 1: Residuals Statistics

	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	1.1181	3.8839	2.0463	.56952	209
Residual	-1.58857	.91451	.00000	.30161	209
Std. Predicted Value	-1.630	3.227	.000	1.000	209
Std. Residual	-5.229	3.010	.000	.993	209

a. Dependent Variable: efficiency of freight forwarding

(Source: Own Competition, 2023)

Appendix 3: Case Summary

		N	%
Cases	Valid	209	100.0
	Excluded[a]	0	.0
	Total	209	100.0

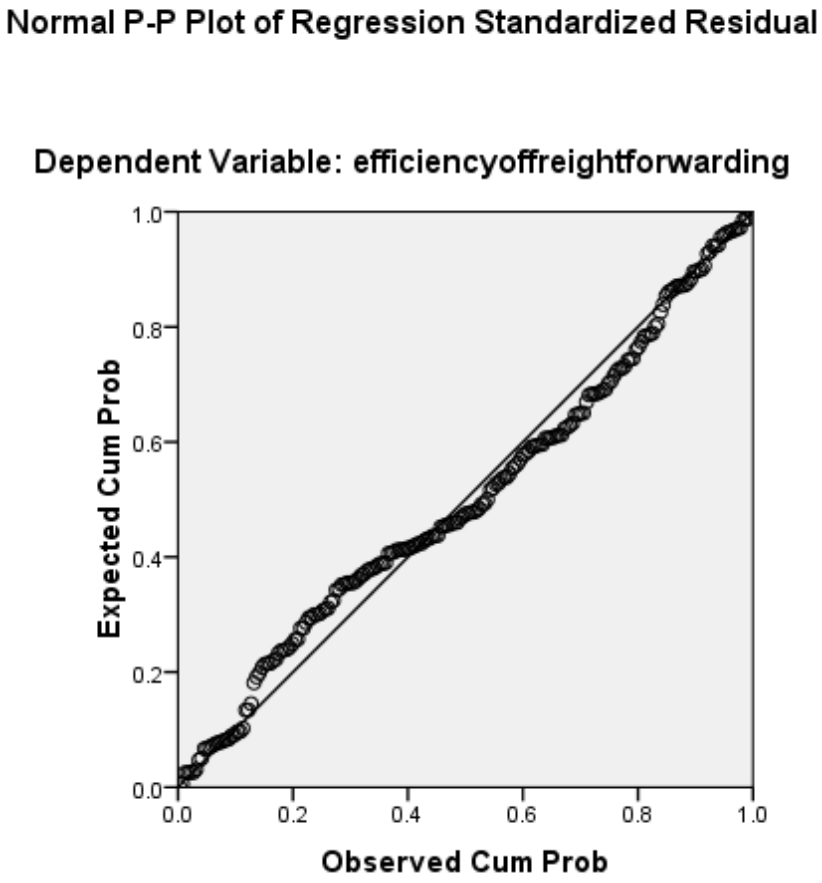
(Source: Own Competition, 2023)

Appendix 3: Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.974	.973	53

(Source: Own Competition, 2023)

Appendix 4: P-P Plot of regression model



Appendix 5: Histogram