ADDIS ABABA UNIVERSITY

COLLEGE OF BUSINESS AND ECONOMICS

SCHOOL OF COMMERCE

THE EFFECT OF FREIGHT FORWARDING ON INTERNATIONAL TRADE OPERATION IN THE CASE OF SELECTED COMPANIES

A THESIS SUBMITTED TO THE SCHOOL OF COMMERCE OF ADDIS ABABA UNIVERSITY IN PARTIAL FULFILLMENT OF THE REQUIREMENT FOR THE AWARD OF MASTER OF ARTS DEGREE IN LOGISTICS AND SUPPLY CHAIN MANAGEMENT

BY:

EYERUSALEM BERHANU

LOGISTICS AND SUPPLY CHAIN MANAGEMENT

ADVISOR:

BUSHA TEMESGEN (PHD)

OCTOBER, 2024

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Declaration

I, the undersigned, hereby certify that the thesis entitled “The Effect of Freight Forwarding on International Trade Operation In The Case of Selected Companies” is prepared under the supervision of Busha Temesgen (PHD). All Sources were noted, referenced, and included in the list of references. I declare that this thesis is my original work and was not submitted in part or in whole to any other higher-learning institution for earning a degree.

Eyerusalem Berhanu Signature:_____ Date: _____

Addis Ababa University

College of Business and Economics

School of Commerce- Department of LSCM

This is to certify that the thesis entitled “The Effect of Freight Forwarding on International Trade Operation In The Case of Selected Companies” carried out by Eyerusalem Berhanu, was submitted in partial fulfillment of the requirements for the Degree of Master. It complies with the university's regulations and meets the accepted standards concerning originality and quality.

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Lists of Abbreviations

IT – Information Technology

NVOCC - Non-Vessel operating common carrier

PLC – Private Limited Company

EFFSAA - Ethiopia Freight Forwarding and Shipping Agents Association

SMEs - Small and medium-sized enterprises

TAM -Technology Acceptance Model

DOI - Diffusion of Innovation Theory

ERP – Enterprise Resource Planning

ESL - Ethiopian Shipping Lines Share Company

GDP - Gross Domestic Product

OLS - least square method

VIF - Variance Inflation Factor

Abstract

The purpose of this study was to find the effect of freight forwarding on international trade operations in some selected companies. While past research has explored the individual effects of freight forwarding factors, a holistic understanding of their combined influence on international trade operations remains limited. This study aims to address this gap by investigating how these factors interact and contribute to the international trade operation. Research Design: A quantitative approach is employed. The study was collected through surveys of freight forwarding employees, measuring performance indicators and perceptions of the aforementioned factors. Sample: The study targets a representative sample of freight forwarding companies. The sample includes staff members with a total population of 193. Data Analysis: Statistical Package for Social Science (SPSS) software was used to analyze the data collected from the questionnaire in the form of descriptive statistics and inferential statistics like correlation and regression analysis. Quantitative data was analyzed using statistical methods to identify correlations and relationships between the variables. Conclusion: The study has comprehensively examined the multifaceted role of freight forwarding in facilitating global commerce, highlighting its critical functions in transportation, documentation, customs clearance, risk management, and supply chain optimization. Recommendation: companies can improve the efficiency and competitiveness of their freight forwarding operations by improving customs procedures, reducing paperwork, investing in technology to automate clearance processes, selecting experienced and reputable freight forwarders, working on the adoption of technology solutions, and keeping up-to-date with regulations.

Key Words: Freight Forwarding, International Trade

CHAPTER ONE

1. INTRODUCTION

The study aims to identify the effect of freight forwarding on international trade in Addis Ababa, Ethiopia in some selected companies. In this chapter, the study will include the background of the study, statement of the problem, objectives of the study, significance of the study, scope of the study, definition of terms, and organization of the study.

1.1. Background of the study

Freight forwarding, a critical component of international trade, involves the organization and management of the transportation and logistics of goods from the point of origin to the destination. It encompasses a complex array of activities, including documentation, customs clearance, warehousing, and transportation coordination (Habtamu et.al., 2023).

Ethiopia, a growing economy with significant growth potential, relies heavily on international trade for economic development. However, the country's logistics infrastructure and efficiency remain substantial challenges. This study aims to explore how freight forwarding practices influence the international trade operations of Ethiopian companies, identifying both the opportunities and constraints (Dereje, 2023).

The significance of freight forwarding in international trade cannot be overstated. It plays a pivotal role in ensuring the smooth flow of goods across borders, reducing costs, and enhancing supply chain efficiency. By optimizing transportation modes, consolidating shipments, and managing customs formalities, freight forwarders contribute significantly to the competitiveness of exporters and importers (Modaltrans, 2024).

As we know, Ethiopia is a landlocked country located in East Africa, bordering Sudan, South Sudan, Eritrea, Djibouti, Somalia, and Kenya. The increasing of the country’s overall Export/Import trade capability is demanding an efficient and effective freight forwarding Platform to attract foreign direct investments. Logistics practice in Ethiopia is characterized by its underdeveloped state and specific issues have been observed in the area such as lack of skilled logisticians, inadequate use of technology, lack of infrastructure (Such as IT, road, electricity & airports) & utilizing third-party country port are a common problem for undesirable impacts, such

as long transit times, poor quality of logistics procedures/service and incurring unnecessary cost (Elias, 2020).

According to P. Sudha and V. Pradeep, (2023), Freight forwarding is a service that handles transnational or multi-national import and export transactions. Freight forwarders either operate as a middleman between the client and various transportation services or transfer the freight themselves.

Freight forwarding is traditionally defined as an entity that works as an intermediate between the actual shipper or importer and the carrier. (David, 2014) mentioned that a freight forwarder or forwarding agent, also known as a non-vessel operating common carrier (NVOCC), is an individual or a company who helps individuals or corporations arrange shipments to get cargoes or goods from the producer or manufacturer to a customer, a market, or the final point of distribution for end users. Forwarders make a contract with a carrier or, in many cases, numerous carriers to transport the goods.

A freight forwarding company functions as a clearance agency, assisting in the clearance of export and import products. They also act as customs brokers and even become multimodal transporters. Some freight forwarding companies also do warehousing, while others outsource. Consolidation is the most critical job of a freight forwarder. A forwarding agent gets a large number of consignments and frequently puts together a lot of minor ones to secure better freight rates from the shipping line or the airline. Otherwise, the shipper of a few items may face exorbitant freight rates *(*Dr.S.Vasantha, 2019*).*

In Bangladesh, as a value-added service, freight forwarders book freight, prepare documentation, arrange warehousing, and assist with Customs clearance on behalf of shippers or importers. Because of the rapid changes in the global business pattern, the job and function of a freight forwarder have changed to keep up with the new environment (S. M. Sarker, 2017).

1.2. Statement of the problem

Freight forwarders are doing the best operations in the limited infrastructural facilities. The major problems faced by forwarders are identified from a customs clearance perspective and it is very clear by the facts and figures that it is because of government policies and regulations, importers or exporters, the result of port authorities, insurance companies, liner companies, infrastructural problems, payment issues, etc (S. Vasantha and S. Meena, 2019).

To ensure efficient, cost-effective, and reliable import and export in the given country, freight forwarding operation is the main determent of satisfying customers as well as keeping the country's economy sustainable for a long time (Mohanty, 2005).

The effect of freight forwarding on international trade operations is a critical concern in the global logistics industry. However, despite its significance, there is a lack of comprehensive understanding regarding the precise impact of freight forwarding services on various aspects of international trade operations.

However, freight forwarding is one of the fundamental economic activities of the country in international trade and is affected by different factors. According to the examination of the literature that is currently available, the major issues and potential facilitators to improve the best freight forwarding operation and its influence on global trade are not adequately considered or investigated there is a literature gap (Wilford et.al., 2018).

As a result of the observation, the services that are provided by the freight forwarders have been affected and created delays in import/export operations according to regulatory changes, technology, Port authority issues, Customs clearance challenges, Infrastructural limitations, and Payment issues. Therefore the researcher is interested in studying the difficulties of freight forwarding and their effect on international trade operations.

While past research has explored the individual effects of factors such as Quality of services, Technology adoption, Freight forwarding network, Economic factors, and Regulatory environment, a holistic understanding of their combined influence on international trade operations remains limited. This study aims to address this gap by investigating how these factors interact and contribute to international trade operations in the case of selected companies in Ethiopia.

1.3. Research Questions

1. How does freight forwarding impact the overall efficiency and cost of international trade operations in Ethiopia?
2. What are the primary challenges that affect Ethiopian companies in managing freight forwarding activities in terms of Technology, , Economic, and Regulatory environment?
3. What Freight forwarding network strategies can be implemented to enhance the performance of freight forwarding services in Ethiopia?

1.4. Objective of the study

1.4.1 General Objective of the study

The overall objective of the research is to assess the effect of freight forwarding on international trade in the case of Ethiopian Shipping and Logistics Service Enterprise (ESLSE), Freighters International PLC, and Panafric Global to provide practical facts to researchers and readers about the influences and implications.

1.4.2 Specific Objectives

- To examine how freight forwarding impacts the overall efficiency and cost of international trade operations in Ethiopia.
- Assess the primary challenges that affect Ethiopian companies in managing freight forwarding activities in terms of Technology, Freight forwarding network, Economic, and Regulatory environment.
- To evaluate the freight forwarding network strategies that are implemented to enhance the performance of freight forwarding services in Ethiopia.

1.5. Significance of the study

The significance of studying the effect of freight forwarding on international trade operations in Ethiopia is underscored by its pivotal role in facilitating global commerce. Freight forwarding serves as the backbone of international trade, ensuring the efficient and timely movement of goods across borders.

In the context of Ethiopia, a country with growing economic aspirations, understanding the impact of freight forwarding on trade is paramount for several reasons:

- Economic Growth and Development: Efficient freight forwarding in Ethiopia significantly contributes to economic growth by reducing trade costs, improving competitiveness, and attracting foreign investments. It streamlines customs procedures, optimizes transportation routes, and provides logistics solutions, promoting Ethiopia's exports, generating foreign exchange earnings, and ensuring timely import delivery.
- Supply Chain Optimization: Studying the impact of freight forwarding on international trade can identify gaps in Ethiopia's logistics infrastructure, such as inadequate transportation networks, warehousing facilities, and customs clearance processes. This information can be

used to develop targeted policies and investments to enhance supply chain efficiency. Freight forwarding costs can significantly impact the overall competitiveness of Ethiopian exports. By analyzing the factors influencing freight forwarding costs, policymakers can implement measures to reduce these costs and improve the export performance of Ethiopian businesses.

Freight forwarding involves inherent risks such as delays, damages, and losses. Understanding these risks and their impact on international trade operations is crucial for developing effective risk management strategies.

- Academic Contribution: The study can contribute to the existing body of knowledge on freight forwarding and its impact on international trade, particularly in the context of developing economies like Ethiopia. The findings of the study can be used to develop evidence-based policy recommendations for improving the freight forwarding sector and facilitating international trade.

Generally, studying the effect of freight forwarding on international trade operations in Ethiopia is essential for understanding the challenges and opportunities facing the country's trade sector. By providing valuable insights into the role of freight forwarding in economic growth, supply chain optimization, and policy formulation, this research can contribute to the development of effective strategies for enhancing Ethiopia's global competitiveness.

1.6. Scope of the Study

Currently, Ethiopia has 98 registered companies under the Ethiopian Freight Forwarders and Shipping Agents Association (EFFSAA). The study was conducted on three freight forwarding companies in Addis Ababa, Ethiopia, which are members of (EFFSAA). The study’s target consisted of permanent employees and those directly involved in operation management, freight forwarding, transportation, and air cargo.

1.7. Limitations of the study

The analysis of the study only includes the three companies that are presented as study areas. Thus, the outcome of the study is limited to the information that the selected companies were able to gather. The drawback was the variety of other factors that are not included in the study may have an impact on the success of freight forwarders and international trade operations and would make it difficult to generalize the findings to other similar organizations.

1.8. Organization of the study

There are five chapters in this study paper. The first chapter provides an overview of the introductory section, which includes the study's background, issue statement, significance, scope, and objectives, as well as the research questions the study will attempt to address and its limitations. The study's review of the literature was covered in the second chapter. The third section provides an overview of the research design and methodology, including information on sample techniques, and data analysis methods. The fourth chapter includes the primary portion of the study, which deals with the analysis of the gathered data and its findings. The fifth and final chapter summarizes the major discoveries and offers recommendations and conclusions.

CHAPTER TWO

2. RELATED LITERATURE REVIEW

2.1. Introduction

This chapter reviews related literature, theories, and empirical studies to get a better knowledge of freight forwarding and international trade. Also, the researcher uses a conceptual framework to gain a deep understanding of concepts that will be included in the study.

2.2. Theoretical literature review

2.2.1. Definition of freight forwarding

Freight forwarding is a specialized service that involves the organization and management of the transportation of goods on behalf of shippers. Essentially, freight forwarders act as intermediaries between shippers and carriers, handling the complexities of logistics and ensuring the efficient and timely delivery of cargo (Christopher, 2016).

Freight forwarders are specialized organizations with extensive knowledge in the transportation industry. These organizations manage a variety of cargoes for their customers and have complete control over the shipping process to ensure that shipments reach safely and on time. To provide such a wide range of services, businesses must establish a dependable network of carriers, insurers, customs agents, and advisers capable of dealing with all anticipated and unanticipated complications that may arise during the transportation process (Wilson, 2023).

2.2.2. The role of a freight forwarder encompasses a wide range of activities, including:

Transportation Planning: Freight forwarders analyze shipment requirements, determine the most suitable mode of transport (air, sea, road, or rail), and select carriers that can meet the specific needs of the shipment (S.A., 2024).

Documentation: They prepare and process a comprehensive set of shipping documents, such as bills of lading, commercial invoices, packing lists, and customs declarations, ensuring compliance with international trade regulations (3PL Links, 2024).

Customs Clearance: Freight forwarders handle customs formalities, including tariff classification, valuation, and duty payments, to facilitate smooth clearance of goods at ports of entry (Jude Abraham, 2018).

Warehousing and Distribution: They offer warehousing and distribution services, providing temporary storage, consolidation, and distribution of goods as required (Sinay Maritime Data Solution, 2023).

Risk Management: Freight forwarders assess potential risks during transportation and implement measures to protect the cargo, including insurance coverage (BCR Australia, 2019).

Customer Service: They maintain effective communication with shippers and consignees, providing updates on shipment progress and resolving any issues that may arise (Jon Swallow, 2024).

2.2.3. The Role of Freight Forwarders in Global Supply Chains

In today's interconnected global economy, freight forwarders play a crucial role in facilitating international trade. By acting as logistics experts, they help businesses streamline their supply chains, reduce costs, and improve efficiency. Freight forwarders are indispensable intermediaries in the intricate web of global supply chains. Their expertise and services facilitate the seamless movement of goods across borders, contributing significantly to the efficiency and reliability of international trade.

Freight forwarders are crucial in global supply chains, acting as intermediaries between shippers and carriers. They handle transportation, documentation, customs clearance, warehousing, and cargo insurance. They offer cost-effective shipping solutions, manage risk, negotiate rates, consolidate shipments, and provide real-time tracking information. Their expertise contributes to the smooth operation and competitiveness of global supply chains (Modaltrans, 2024).

At the core of their role is the consolidation of shipments. By aggregating cargo from multiple shippers, freight forwarders achieve economies of scale, resulting in lower transportation costs for their clients. This process is particularly beneficial for small and medium-sized enterprises (SMEs) that might struggle to fill entire containers on their own. Moreover, freight forwarders offer a variety of transportation modes, including ocean, air, and land, enabling them to select the most cost-effective and efficient option for each shipment.

A critical aspect of freight forwarding is customs clearance and documentation. Navigating the complex maze of customs regulations, tariffs, and documentation requirements can be daunting for businesses. Freight forwarders possess in-depth knowledge of these procedures and can handle all necessary paperwork, ensuring compliance and minimizing delays. This expertise is invaluable, especially for companies new to international trade (Sarita, 2021).

Risk management is another key function of freight forwarders. They assess potential risks throughout the supply chain, such as damage, loss, or theft, and implement measures to mitigate them. This includes arranging cargo insurance, selecting reliable carriers, and monitoring shipments closely. By transferring these responsibilities to freight forwarders, businesses can focus on their core competencies while enjoying peace of mind (Department for Business Innovation & Skills, 2012).

In addition to core services, freight forwarders often provide value-added services that enhance supply chain efficiency. These may include warehousing and distribution, packaging and labeling, and supply chain visibility solutions. By offering a comprehensive suite of services, freight forwarders position themselves as strategic partners to their clients, contributing to overall supply chain optimization.

The advent of technology has transformed the freight forwarding industry. Digital platforms and advanced tracking systems enable real-time visibility of shipments, improving supply chain transparency and responsiveness. Freight forwarders are increasingly leveraging data analytics to optimize routes, reduce costs, and enhance customer service. Furthermore, the integration of block chain technology holds the potential to revolutionize supply chain security and traceability (Kroemer T. & Henke J., 2014).

2.2.4. Key Functions of Freight Forwarders in Ethiopia

Ethiopia, a rapidly growing economy, is increasingly integrating into the global trade network. This growth has necessitated the efficient movement of goods, both domestically and internationally. Freight forwarders play a crucial role in this process by providing a range of services that streamline logistics operations. This paper delves into the key functions of freight forwarders in Ethiopia, highlighting their significance in the country's trade landscape.

A freight forwarder is an intermediary between shippers and carriers. They act as a one-stop shop for logistics, handling various aspects of transportation, including documentation, customs clearance, and warehousing. In Ethiopia, freight forwarders have become indispensable due to the complexities involved in international trade and the country's developing infrastructure. Some of the key functions of Freight Forwarders in Ethiopia are:

Transportation and Logistics Planning:

- Route Optimization: Freight forwarders analyze different transportation modes (air, sea, rail, and road) to determine the most efficient and cost-effective routes for cargo movement.
- Mode Selection: Based on the nature of the goods, delivery timelines, and cost considerations, they select the appropriate transportation mode.
- Carrier Selection: Freight forwarders negotiate rates and contracts with carriers, ensuring reliable and timely delivery of goods.

Documentation and Customs Clearance:

- Documentation Preparation: They prepare and process a wide range of shipping documents, including bills of lading, commercial invoices, packing lists, and certificates of origin.
- Customs Compliance: Freight forwarders have in-depth knowledge of customs regulations and procedures, ensuring smooth clearance of goods.
- Duty and Tax Calculation: They accurately calculate import duties and taxes, minimizing financial burdens on importers.

Warehousing and Distribution:

- Storage Facilities: Freight forwarders offer warehousing solutions for the temporary storage of goods, providing flexibility to shippers.
- Inventory Management: They track inventory levels and ensure efficient stock management.
- Order Fulfillment: Freight forwarders handle order processing, picking, packing, and distribution to end customers.

Risk Management and Insurance:

- Cargo Insurance: They arrange comprehensive cargo insurance coverage to protect goods against loss or damage during transit.
- Risk Assessment: Freight forwarders identify potential risks in the supply chain and implement mitigation strategies.

- Claim Management: In case of losses or damages, they assist clients in filing claims and recovering compensation.

Supply Chain Management:

- Supply Chain Optimization: Freight forwarders analyze the entire supply chain to identify areas for improvement and cost reduction.
- Supply Chain Visibility: They provide real-time tracking and visibility of cargo movement, enabling better decision-making.
- Supply Chain Integration: Freight forwarders collaborate with other supply chain partners to ensure seamless operations.

Advisory Services:

- Trade Compliance: They provide guidance on import and export regulations, helping clients avoid penalties.
- Market Analysis: Freight forwarders offer insights into market trends and opportunities.
- Logistics Consulting: They provide expert advice on optimizing logistics operations and reducing costs.

In conclusion, freight forwarders play a pivotal role in global supply chains by streamlining the movement of goods, managing complex documentation, mitigating risks, and providing value-added services. Their expertise and capabilities are essential for businesses of all sizes to compete in the global marketplace. As supply chains become increasingly complex and interconnected, the importance of freight forwarders is likely to grow in the years to come (EFFSAA, 2020).

2.2.5. Challenges and Opportunities

While freight forwarders in Ethiopia contribute significantly to the economy, they also face challenges such as Infrastructure Constraints that limit transportation infrastructure, especially in rural areas, hamper efficient operations, Customs Procedures which complex and time-consuming customs clearance processes increase costs and delays, Lack of Skilled Personnel that faces a shortage of qualified logistics professionals limits the industry's growth potential. Despite these challenges, the Ethiopian freight forwarding sector presents numerous opportunities, including Growing E-commerce that rises of e-commerce creating new business opportunities for freight forwarders, and Regional Integration; Ethiopia's integration into regional trade blocs offers

expanded market access, Government Support that initiatives to improve the logistics sector create a favorable environment.

2.2.5.1 Service quality

The concept of service quality in freight forwarding can be understood through various theoretical lenses. Notably, the SERVQUAL model, developed by Parasuraman, Zeithaml, and Berry, has been widely applied to assess service quality across different industries (Parasuraman, 1988).

This model posits that service quality is a function of the gap between customer expectations and perceived performance. Other relevant theoretical frameworks include the Kano model, which differentiates between basic, performance, and delighter attributes, and the five dimensions of service quality proposed by Cronin and Taylor: tangibles, reliability, responsiveness, assurance, and empathy.

Key Factors Influencing Service Quality

Existing research has identified several key factors that significantly impact the quality of service provided by freight forwarders. These include:

- **Reliability:** The ability of freight forwarders to deliver services as promised, including on-time delivery, accurate documentation, and minimal damage to shipments.
- **Responsiveness:** The willingness and ability of freight forwarders to provide prompt and helpful service, such as timely communication and efficient problem-solving.
- **Assurance:** The knowledge, courtesy, and professionalism of freight forwarder employees, as well as their ability to inspire trust and confidence in customers.
- **Empathy:** The caring, individualized attention provided by freight forwarders, including understanding and addressing the specific needs and concerns of customers.
- **Tangibles**: The physical appearance of facilities, equipment, and personnel, as well as the quality of communication materials and information systems.

Customers of freight forwarding services have diverse expectations regarding quality. Studies have shown that customers prioritize factors such as reliability, timely communication, competitive pricing, and efficient customs clearance. Additionally, customers increasingly value personalized service, transparency, and the ability to track their shipments in real-time. Freight forwarders

recognize the importance of delivering high-quality service to retain and attract customers. To achieve this, they have implemented various strategies, including:

- **Technology adoption:** Utilizing advanced technology, such as transportation management systems and supply chain visibility platforms, to improve operational efficiency and customer satisfaction.
- **Human capital development:** Investing in training and development programs to enhance the skills and knowledge of employees.
- **Strategic partnerships:** Collaborating with other logistics providers and carriers to offer comprehensive and integrated services.
- **Continuous improvement:** Implementing quality management systems and performance metrics to identify areas for improvement and drive ongoing enhancement.

The literature on service quality in freight forwarding highlights the critical role that it plays in the success of the industry. By understanding the factors that influence service quality and the expectations of customers, freight forwarders can develop strategies to enhance their offerings and build lasting relationships with their clients.

2.2.5.2 Technology adoption

The adoption of technology has become more and more crucial to freight forwarding companies' success. Freight forwarders may invest in technology wisely and set themselves up for future growth by knowing what influences adoption, what the advantages and difficulties are, and what new trends are.

Adoption of technology reduces costs, increases visibility, boosts efficiency, enhances customer service, and reduces risk. Adoption does, however, face certain difficulties and barriers. Some of these include the initial outlay for technology for smaller freight forwarders, resistance from staff members to changes in their job duties or work processes brought about by technology adoption, worries about data security and privacy that can impede technology adoption, the complexity and time-consuming nature of integrating new technology with existing systems, and a lack of technical expertise are some of the difficulties.

The Technology Acceptance Model (TAM) and Diffusion of Innovation Theory (DOI) provide valuable frameworks for understanding technology adoption.

TAM highlights the perceived utility and usability of technology as important factors influencing adoption. TAM's main goal was to shed light on the mechanisms that support technology adoption to forecast its behavior and offer a theoretical justification for its effective application. TAM's practical goal was to educate practitioners about potential actions they may take before putting systems in place (Avis, 1989).

Role of Technology in Freight Forwarding

The efficiency, cost-effectiveness, and customer service of freight forwarding services have all improved with the integration of technologies like global positioning system (GPS) tracking, electronic data interchange (EDI), warehouse management systems (WMS), transportation management systems (TMS), and artificial intelligence (ML) and machine learning (AI).

Freight forwarding is now more responsive and nimble thanks to these technologies, which also optimize inventory and route management and allow electronic document exchanges. These technologies enable automating manual tasks for streamlined operations, collaborating and communicating seamlessly, enhancing visibility through real-time tracking, making informed decisions, improving customer service, and Promoting sustainability via reduced emissions (Sedna,2024).

2.2.5.3 Freight forwarding network

Global coverage and strategic partnerships are essential for the success of freight forwarding networks in today's competitive environment. By expanding their geographical footprint, forming strong alliances, and leveraging technology, freight forwarders can provide comprehensive and efficient logistics solutions to clients worldwide. Freight forwarding networks have evolved significantly in recent decades, driven by globalization, technological advancements, and the increasing complexity of supply chains. Global coverage and strategic partnerships have become essential components of successful freight forwarding operations, enabling them to provide comprehensive and efficient logistics solutions to clients worldwide (Sugiono, 2023).

Global Coverage

The literature highlights the importance of a wide geographical footprint for freight forwarders to meet the diverse needs of their clients. Studies have shown that companies with a global presence

are better positioned to handle international shipments, manage customs clearance procedures, and navigate complex regulatory environments. Effective global coverage requires a robust network of infrastructure, including warehouses, distribution centers, and transportation hubs. Research indicates that investments in these facilities are crucial for ensuring efficient operations, reducing transit times, and minimizing costs.

Partnerships

The literature emphasizes the significance of strategic partnerships between freight forwarders and other industry players. Collaborations with airlines, shipping lines, trucking companies, and customs brokers can provide access to specialized services, expand market reach, and enhance service quality. Some freight forwarders have pursued vertical integration strategies by acquiring or partnering with transportation companies. This approach can offer greater control over the supply chain, improve efficiency, and potentially reduce costs.

2.2.5.4 Economic factors

Economic factors, particularly GDP and exchange rates, play a crucial role in shaping the dynamics of the freight forwarding industry. Understanding the complex relationship between these factors is essential for freight forwarders to make informed decisions, manage risks, and capitalize on emerging opportunities. By closely monitoring economic indicators and developing effective strategies to mitigate the potential impacts of fluctuations, freight forwarders can enhance their resilience and long-term success.

The freight forwarding industry, a vital component of global supply chains, is significantly influenced by economic factors. Among these, Gross Domestic Product (GDP) and exchange rates play pivotal roles in shaping market dynamics and influencing demand, costs, and overall profitability. This literature review explores the complex relationship between these economic indicators and the freight forwarding industry, drawing insights from existing research and empirical studies.

GDP and Freight Forwarding

GDP, a measure of a nation's economic output, directly correlates with the demand for freight forwarding services. During periods of economic growth, increased industrial activity, consumer spending, and international trade led to a surge in demand for transportation and logistics solutions.

Consequently, freight forwarders experience higher shipment volumes, revenue growth, and expanded business opportunities. Conversely, economic downturns characterized by reduced GDP result in decreased demand for goods, leading to lower freight volumes and potential financial challenges for freight forwarders (Rakoczy, 2024).

Exchange Rates and Freight Forwarding

Exchange rates, the value of one currency relative to another, exert a profound influence on the freight forwarding industry. Fluctuations in exchange rates can impact both the cost of transportation and the competitiveness of exporters and importers. For example, a stronger domestic currency can make imports cheaper, potentially increasing demand for freight forwarding services. However, it can also make exports more expensive, potentially reducing demand for outbound shipments (Excelsior, 2023).

Conversely, a weaker domestic currency can make exports more competitive, stimulating demand for freight forwarding services. However, it can also increase the cost of imports, potentially affecting consumer demand and overall economic activity. The impact of exchange rate fluctuations on the freight forwarding industry is further complicated by factors such as hedging strategies, currency risk management, and the geographic scope of operations.

Interplay between GDP and Exchange Rates

The interplay between GDP and exchange rates can further complicate the analysis of their impact on the freight forwarding industry. For example, a country with a growing economy may experience a stronger currency, which can make exports more expensive. However, the increased economic activity may also lead to higher demand for imports, which can offset the negative impact of the stronger currency on exports.

Moreover, the impact of GDP and exchange rates on the freight forwarding industry can vary across different regions and modes of transportation. For instance, the sensitivity of air freight to exchange rate fluctuations may differ from that of ocean freight. Similarly, the impact of GDP and exchange rates on domestic freight forwarding may vary from that of international freight forwarding.

2.2.5.5 Regulatory environment

The regulatory environment of freight forwarding is a dynamic and complex landscape, influenced by customs regulations and trade policies. This literature review has highlighted key research areas, including the impact of customs procedures on freight forwarders' operations, the harmonization of customs regulations, the complexity of trade policies, and the effects of trade agreements.

The freight forwarding industry, a vital cog in global supply chains, operates within a complex regulatory landscape. Customs regulations and trade policies form the bedrock of this environment, significantly impacting the operations, costs, and efficiency of freight forwarders. This literature review will delve into the existing body of knowledge on the regulatory environment of freight forwarding, focusing on customs regulations and trade policies (Rajasekharan & Melvin Dass, 2024).

Customs Regulations

Customs regulations, designed to protect national interests and facilitate international trade, play a pivotal role in the freight forwarding industry. A key area of research is the impact of customs procedures on freight forwarders' operations. Studies have highlighted the importance of harmonized customs procedures across borders to streamline the clearance process and reduce trade costs. For example, the World Customs Organization (WCO) has been instrumental in promoting international cooperation and standardization in customs practices (World Customs Organization, 2023).

Furthermore, the harmonization of customs regulations across borders is a topic of significant interest. The World Customs Organization (WCO) has played a crucial role in promoting harmonization through initiatives such as the Revised Kyoto Convention. Another area of concern is the increasing complexity of customs regulations, driven by factors such as security concerns, trade agreements, and technological advancements. This complexity can pose challenges for freight forwarders, who must comply with a myriad of rules and regulations. Risk-based management approaches have gained traction in customs regulations, allowing for more targeted inspections and faster clearance for compliant shipments. Research has shown that the implementation of risk-based systems can significantly improve efficiency and reduce trade delays (OECD, 2022).

Trade Policies

Trade policies, including tariffs, quotas, and trade agreements, can have a profound impact on the freight forwarding industry. Tariffs, such as import or export taxes, can significantly impact the cost of freight forwarding services. Studies have examined the effects of tariff reductions on trade flows, economic growth, and the competitiveness of freight forwarders (World Bank, 2021). Non-tariff barriers, such as quotas, licensing requirements, and technical standards, can pose challenges for freight forwarders. Regional trade agreements, like the North American Free Trade Agreement (NAFTA) or the European Union (EU), have created preferential trading arrangements that can benefit freight forwarders operating within those regions. Studies have analyzed the effects of these agreements on trade patterns, investment flows, and the competitiveness of freight-forwarding businesses (International Monetary Fund, 2024).

Increasing trade tensions and protectionist measures have raised concerns about their potential impact on the freight forwarding industry. Research has explored the implications of trade wars on global supply chains, trade costs, and the resilience of freight-forwarding businesses (OECD, 2022). The uncertainty surrounding trade policies can create challenges for freight forwarders in terms of planning, investment, and risk management. In addition to trade policies, the proliferation of regional trade agreements has created a more complex regulatory environment for freight forwarders. These agreements often have overlapping rules and regulations, which can increase compliance burdens and uncertainty.

2.3 Overview of the Concept of Freight Forwarding

Freight forwarding dates back to the sixteenth century, when it was heavily impacted by the stacking right and the requirement to move goods along certain routes. Existing legislation required commodities to be stacked in all cities along the route that were subject to this requirement. Stacking products during transportation increased delivery time, resulting in losses for retailers. As a result, the apparent buyer arose, who would submit a declaration of purchase of the products that remained the property of the original owner (Slawomir Skiba & Adrianna Karas, 2022).

The service of freight forwarding makes trade between countries easier. International shipping is governed by some shippers, regulations, and laws. In the legal industry, there is a growing need for

specialist service providers. The freight forwarder can handle the actual shipment or operate as a middleman between the customer and the different carriers.

A forwarder is a specialist in the logistics chain who does not move the merchandise physically. These movers have access to a variety of transportation options, including trucks, trains, ships, and airplanes. It is not unusual for them to combine different means of transportation for a single shipment. Freight forwarders could arrange for the shipping of stimulated goods to an airport from a manufacturer, then arrange for air transportation to the destination city, and lastly arrange for ground transportation from the airport to the customer's location (E.Deena et al, 2023).

Freight forwarders can arrange cargo places on ships, planes, railroads, and vehicles. Their charge is a lawful export expense that should be accounted for in the final price. Once an order is packed and ready to ship, freight forwarders should double-check all paperwork. This is especially important when considering payment arrangements via letter of credit. They may also be in charge of writing the bill of lading and any other essential documents. The paperwork can be given to the vendor, the buyer, or a paying bank once the package has been shipped. (M, P. Sudha, 2023).

2.4 Overview of the relationship between freight forwarding and international trade

2.4.1 The fundamental role of freight forwarders in international trade

A freight forwarder is a middleman who works for importers, exporters, or other businesses to facilitate safe, effective, and reasonably priced shipping. According to this viewpoint, a freight forwarder's primary responsibility is to set up suitable, customized transport models by utilizing the cooperation of essential freight forwarding elements to deliver manufactured goods to their destination on time.

The majority of businesses use international trade specialists to help with the documentation requirements and other whims of cross-border trade. These specialists can also be hired to book spaces, pay freight charges, consolidate shipments, and prepare paperwork for seamless customs clearance by a knowledgeable international freight forwarder Carrying goods from one country to another emphasizes the importance of shipping activities and capabilities, which are fairly significant for competitive advantage.

Manufacturer companies still export their produced goods throughout the world today and import some unique raw materials from other countries. The core responsibilities of a freight forwarder service provider are to provide just-in-time delivery and efficient logistics services through the use of multi-modal transport models. However, logistics processes are becoming more laborious, complex, and schedule-dependent, necessitating an accurately systematic process flow (Ataoglu, 2015).

2.4.2 Concepts of International Trade

According to T & N (2022), international trade meets a company's profit goal because it is the sector of the economy that deals with the exchange of goods and services with other countries. Businesses can achieve sustainable growth by diversifying their operations, expanding their scale, and improving production and business efficiency through international commerce. Through the purchase and selling of both domestic and foreign goods as well as the expansion of client relationships, international trade business improves the position of businesses and gives them strength both in the home and worldwide markets. Furthermore, the function of international trade is to oversee and direct the manufacturing and operations of businesses.

2.5 Empirical Literature Review

In Addis Ababa, Ethiopia study titled Challenges of Freight Forwarding (Bitanya Admasu, 2022), freight forwarders encountered difficulties due to the lengthy bureaucracy and rigid rules and regulations of the customs process, transportation and infrastructure, a lack of a border system, the behavior of drivers in the climate, government rules and regulations, the customs officers' lack of technological adaptability, and the strict laws enforced by customs.

Freight forwarders are essential to the growth of the Indian economy. Freight forwarders confront extremely difficult market challenges. Establishing customer service or a channel of communication between the bulks of businesses in the sector, according to Kee-Hung Lai & T. C. E. Cheng (2004), is little, employing less than 50 people. This suggests that they might not have the operational scope and financial means to provide a broad range of logistics services. These indicate that forming alliances and mergers may be a way to achieve scale economies and enhance industry offerings. The core business of the industry is freight forwarding. According to the findings, freight forwarding services account for 90-100% of revenue in 80% of the responding companies, even

though they also provide inventory management, order management, and packaging, At all times, a customer and freight forwarder are assembled and labeled.

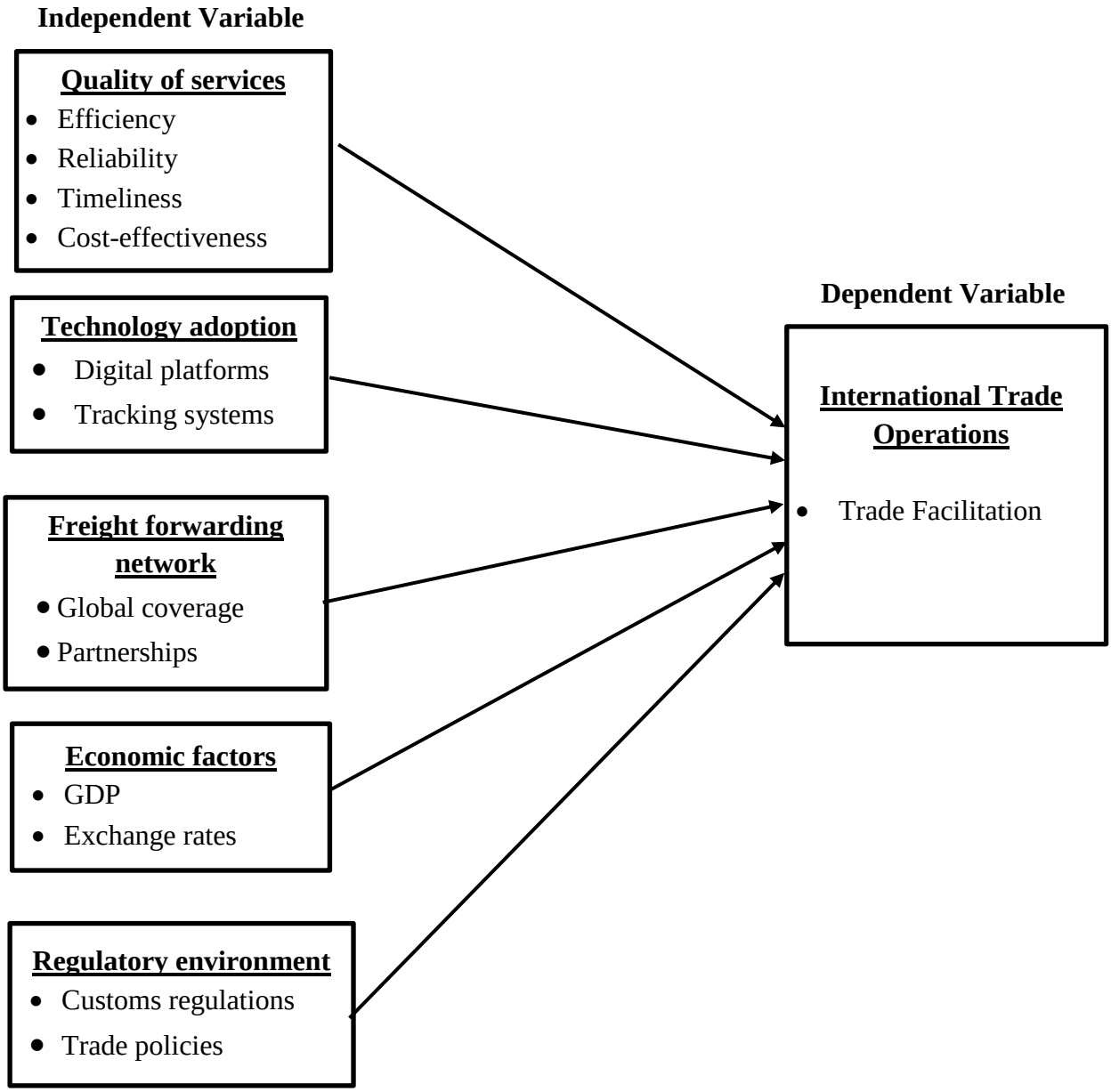
For a Freight Forwarder to be productive, different external elements must come into play. Freight Forwarders are reliant on third-party services that are available to all service providers. The research of (P. Sudha and V. Pradeep, 2023) demonstrates that a lack of suitable infrastructure is a key concern in the freight forwarding business, impacting international trade.

Customer service is the crucial factor for the customer. It is a well-established fact that a close, personal relationship between an exporter and a freight forwarder enhances the quality of services offered, primarily due to the two parties' legitimate and direct exchange of information and advice regarding the specific requirements of the transport, the identification of issues, and their shared interests. Another significant element influencing the aforementioned criterion is the Greek mentality, which promotes business partnerships founded on interpersonal relationships (George Kokkinis, 2006).

In Ethiopia, many studies have evaluated the problem of delays in enabling international commercial transactions. The cost of manufactured items increases by 0.8% for every day that there is a shipping delay. Excessive paperwork, physical inspections, and perhaps several inspections involving various middlemen (agencies) will result in lengthy and more expensive customs clearance procedures. Furthermore, if the procedures and practices used to facilitate cross-border trade grow convoluted and inept, the time needed to complete the transaction will inevitably increase (Ousman Mohammed, 2020).

2.6. Conceptual Framework

This framework explores “The Effect of Freight Forwarding on International Trade Operations,” and it helps to structure the research by defining key variables, and outlining their relationships.



SOURCE SELF-DEVELOPED

FIGURE 1: CONCEPTUAL FRAMEWORK ON THE EFFECT OF FREIGHT FORWARDING ON INTERNATIONAL TRADE OPERATION.

Key Variables:

Independent Variable:

Quality of Service: in the context of freight forwarding refers to the overall performance and effectiveness of a freight forwarder in meeting the needs and expectations of its clients. It

encompasses a broad range of factors that influence the customer's perception of the service provided.

Technology adoption in freight forwarding refers to the degree to which freight forwarders integrate and utilize technological advancements in their operations. This encompasses a wide range of technological applications, from basic software to complex systems.

A freight forwarding network can be defined as a group of independent freight forwarding companies that cooperate under a global network to provide seamless logistics solutions for clients across different regions. These networks typically operate on the principle of cooperation and support, allowing members to share resources, expertise, and clients.

Economic factors represent a broad spectrum of variables that can significantly influence the dynamics of freight forwarding and international trade. To effectively analyze their impact, it's essential to break down this overarching category into more specific components. Key Economic Factors Affecting Freight Forwarding and International Trade

- **Gross Domestic Product (GDP):** A measure of a country's overall economic output, GDP directly correlates with trade volume. Higher GDP often indicates increased import and export activities.
- **Exchange Rates:** Fluctuations in currency values affect the cost of imports and exports, impacting trade balances and the competitiveness of goods and services.

The regulatory environment, as an independent variable in the research, summarizes the complex interplay of rules, laws, and standards that govern international trade operations, specifically as they pertain to freight forwarding. It includes the policies, procedures, and frameworks established by governments, intergovernmental organizations, and industry bodies to regulate the movement of goods across borders. Key Components of the Regulatory Environment are customs regulations, trade agreements, licensing and permitting, transport regulations, security regulations, environmental regulations, and trade facilitation initiatives.

Dependent Variable:

International Trade Operations: it likely refers to the overall efficiency, effectiveness, and performance of trade activities between two or more countries.

CHAPTER THREE

3. RESEARCH METHODOLOGY

3.1 Introduction

This chapter discusses research design, methodology, and data analysis to answer research questions and achieve objectives. It covers sample selection, questionnaire design, data collection, processing, analysis, evaluation, and validity and reliability of methods.

3.2 Description of the study

This research examines the effect of freight forwarding on the international trade operations within the three selected companies. The study focuses on how the Cost and efficiency, quality of service, regulatory environment, economic factor, freight forwarding network, and technology adaption affect the operation of international trade.

The three organizations were chosen for the study because Ethiopian Shipping and Logistics Service Enterprise is the most experienced company and is the only governmental freight forwarding company in the country, it is necessary to include public and private companies engaged in the freight-forwarding sector in the study. The other two freight forwarding companies are selected; they have better experience and are comparable based on their service offerings in the field by looking at the websites of the companies and comparing them with other similar companies.

The Ethiopian Shipping and Logistics is a merger of four enterprises that were working independently in the sea transport sector. These were Ethiopian Shipping Lines Share Company, Ethiopian Maritime and Transit Service Enterprise, Dry Port Enterprise; and the former Comet Transport Share Company, consolidated into the new company, in August 2016. Currently, the company has 159 employees in the main office who are directly involved in the trade operation (Ethiopian Shipping and Logistics, 2024).

Freighters International plc is the trading name of the transport support service company situated in Ethiopia. Freighters were founded in 1990 as a transportation company based in Addis Ababa. Since then, it has expanded its activities to include surface freight forwarding, warehousing, trucking, and clearing operations all over Ethiopia. A comprehensive range of freighting services is offered for land, air, and sea cargo movements with customs clearance available throughout the

network and exit/entry points. Qualified staff with extensive experience are located throughout the network, ensuring a high level of service. The company has 62 permanent staff those who believe in listening to their customers and fulfilling their needs (WCA Ltd, 2024).

Panafric Global is comprehensive services include international freight forwarding, intermodal trucking, customs clearance, freight consolidation, project cargo management, warehousing, and relocation services. Panafric Global Logistics ensures a hassle-free journey for cargo service, from origin to destination. Industries such as manufacturing, aid & relief, consumer/retail, garment industry, oil & gas, and special heavy lift handling trust us for tailored logistics solutions. Leveraging in-depth local knowledge and a vast global freight network. Panafric Global Logistics serves end-to-end and door-to-door multimodal transport solutions in Ethiopia and beyond. Boasting over 30 years of industry experience and a team of 170 logistics professionals (Shiffs PLC Technologies, 2023).

3.3 Research Design

The research design helps the researcher obtain relevant data to fulfill the objective of the study (Iacobucci., 2006). According to (Kothari C., 2004) research design is a conceptual structure within which research is conducted: it contributes to the blueprint for the collection, measurement, and analysis of data.

The main purpose of the research is to explain the effect of freight forwarding on international trade operations. Therefore, the researcher adopted a descriptive research design method to collect detailed and factual information. Additionally, explanatory research was adopted to identify any causal links between variables that pertain to the research problem. Based on the research objective and basic research questions both descriptive and explanatory research designs were used to assess and determine whether freight forwarding practices affect international trade operations in selected companies.

3.4 Research Approach

To answer the study questions, a quantitative research approach was employed. The quantitative approach helps researchers to test relationships between variables. The researcher has chosen a quantitative approach to present data, and numerical data was collected and analyzed statistical tools. Quantitative data was collected through the distribution of questionnaires, believed to address

the issue raised in the research question and the objective of the study. A quantitative approach is also one that investigators primarily use for developing knowledge, i.e. cause and effect relationship between the dependent and independent variables (Creswell., 2012). As such this research employs such a method.

3.5 Sources of Data and Data Gathering Instruments

In this research, the researcher used both primary and secondary sources of data collection to generate valuable and relevant data. Primary data is collected through the use of a well-structured questionnaire. The questionnaire is developed based on specific objectives and basic research questions. The secondary data was collected from the data that had been prepared, collected, and analyzed by others which included other relevant research, from journals and other source documents related to the study.

3.6 Procedures of Data Collection

To collect the necessary data, the following procedure is applied; first, the developed items are validated by an expert who examines the questionnaire if it is compatible with the respondents. Additionally, reliability is examined through a pilot test and for this purpose, 15 employees are taken from the sample to check for three aspects namely; to check any grammar error or spelling errors, to ensure that all questions are well understood and based on feedback modification and improvement on the instrument ranking order. Then Cronbach's alpha is calculated to estimate the reliability of the survey. Following the pilot test, the questionnaire is administered and distributed to respondents for the study by the researcher. In the questionnaire, the respondents choose one of the alternatives as a possible answer. The Likert scale had five scales ranging from 1 which represents “strongly disagree”, 2 refers to “disagree”, 3 “neutral”, 4 represents “agree” and 5 represents “strongly agree”. During the distribution, orientation is given to all sample respondents on how to fill out the questionnaire on the situation of the respondents. Thus, the filled questionnaires are collected from each respondent according to the timeline provided for data collection and ready for analysis.

3.7 Sampling Technique and Sample Size

3.7.1 Sampling Technique

Three freight forwarders are selected for the study, namely, Ethiopian Shipping and Logistics Service Enterprise (ESLSE), Freighters International PLC, and Panafric Global to provide practical

facts to researchers and readers about the influences and implications. So, the purposive method is employed for the selection of the organizations. Mostly, to give equal chances for all the participants, the random sampling technique was used for the employee.

TABLE 1: DATA OF THE PARTICIPANT

Category	Ethiopian Shipping and Logistics Service Enterprise		Freighters international PLC		Panafric Global		Total Population		
	M	**F**	**M**	**F**	**M**	**F**	**M**	**F**	**Total**
Employee	112	47	43	19	138	32	293	98	391

3.7.2 Sample Size

(Kothari C., 2004) Defines sampling in research as the selection of some part of an aggregate or totality based on a judgment or inference about the whole population by examining only part of it. Therefore, not all the members of the study population are surveyed. Simple random sampling is employed to select the sample from the study populations. The reason for using simple random sampling is that it is considered economically feasible to use part of the population. That enables the research to be conducted within a limited time frame. Determining sample size is very important because samples that are too large may waste time, resources, and money, while samples that are too small may lead to inaccurate results. Thus Kothari affirmed that if the total number of the target population is assumed to be less than 10,000, the following formula is to have a representative sample size. Thus, the following Taro Yamane (Yamane T., 1973) formula with a 95% confidence level is used while the population size is already known.

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

Where:-N = Size of the total population of employees / total numbers of employees, n = size of a sample, e = acceptable error (the precision) / level of significance.

$$n = \frac{391}{1 + 391\ (0.05)2} = 198$$

From the result above, the sample size for employees is 198 from the total population of 391 which is the lower number of responses from the respondents to maintain a 95% confidence interval.

3.7.2.1 Strata

In a stratified sample, researchers divide a population into homogeneous subpopulations called strata (the plural of stratum) based on specific characteristics (e.g., race, gender identity, location, etc.). Every member of the population studied should be in exactly one stratum. Each stratum is then sampled using another probability sampling method, such as cluster sampling or simple random sampling, allowing researchers to estimate statistical measures for each sub-population (Lauren Thomas, 2023).

The researchers rely on stratified sampling because a population's sample is diverse and want to ensure that every population is properly represented in the sample. This helps with the generalizability and validity of the study, as well as avoiding research biases like under-coverage bias.

The total population of the study is 198 which are segmented with Strata as shown in Table 2 and the population size allocated by the strata sample is determined by the following formula.

$$nh = (Nh/N) \times n$$

Where:-nh =Sample size of stratum, **Nh** = The Population Size for stratum, **N** = the total population size, **n** = the total sample size

TABLE 2: SAMPLE DISTRIBUTION (PROPORTION) OF POPULATION

No	Name of the organization	Categories	Total	Sample Strata	Percentage
1	Ethiopian Shipping and Logistics Service Enterprise	Employee	159	198/391*159 = **81**	40.91%
		Total		**81**	
2	Freighters international PLC	Employee	62	198/391*62 = **31**	15.66%
		Total		**31**	
3	Panafric Global	Employee	170	198/391*170 = **86**	43.43%
		Total	**56**	**38**	
			TOTAL = 198 Employees		**100%**

3.8 Data gathering tools

The main data-gathering instrument is a questionnaire. Closed-ended and open-ended questionnaires are used to collect data from Employees. This means questionnaires were prepared based on a review of related literature and the researcher's past experiences concerning the effect of freight forwarding on international trade.

3.9 Method of Data Analysis

The collected data are coded and entered into computer software called Statistical Package for the Social Sciences (SPSS) version 22.0 for analysis. Both descriptive statistics and inferential statistics were used in the analysis. Hence, descriptive analysis tools, including frequency, mean, and standard deviation, are used to measure the effect of freight forwarding on international trade. Pearson's correlation coefficient is used to analyze the effect of freight forwarding on international trade and multiple linear regressions were employed to identify the most prevalent independent variables that influence employee performance.

3.10 Model Specification

It could be inferred from the works reviewed in the previous sections that international trade is determined by some effect of freight forwarders. Thus, with regard to the hypotheses stated above, the main issue is the investigation of the effect of freight forwarding on international trade, as well as the examination of each of the explanatory variables identified through literature and theories. Other factors that are not explicitly included in the model were captured by the error term in the model. Therefore, the general model that incorporates all of the variables to test the hypotheses of the study was:

$$\mathbf{ITO = \beta_0 + \beta_1(QS) + \beta_2(RE) + \beta_3(EF) + \beta_4(FFN) + \beta_5(TA) + \varepsilon}$$

Where;- ITO = International Trade Operation (Dependent Variable), **β0** = constant term, **QS** = Quality of service, **RE =** Regulatory environment, **EF** = Economic Factor, **FFN** = Freight forwarding network, **TA** = Technology Adaption, **ε** = error term.

β: Coefficients associated with each independent variable which measures the change in value of **ITO,** per unit change in their respective independent variables.

3.11 Validity and Reliability of Research Instrument

The data collection was done through questionnaire administration. This calls for validity and reliability tests.

3.11.1 Instrument Validity

Validity is the degree to which a test measures what it purports to measure (Creswell, 1999) Validity is defined as the accuracy and meaningfulness of the inferences that are based on the research results. It is the degree to which the results obtained from the analysis of the data represent the phenomena under study. He contends that the validity of the questionnaire data depends crucially on the ability and willingness of the respondents to provide the information requested. A pilot study was conducted to refine the methodology and test instruments, such as a questionnaire, before administering the final stage. Questionnaires were distributed and filled out by potential respondents to make the data collection instruments objective, relevant, suitable to the problem, and reliable as recommendations. Issues raised by respondents accordingly in the questionnaires were corrected and adjusted. Finally, the questionnaires were printed out, duplicated, and dispatched to the respondents.

3.11.2 Instrument Reliability

Reliability refers to the degree to which measures are free from random error and therefore yield consistent results (Zikmund. W, 1997). It measures the level of variance of actual results from expected results from the research tool that has been adopted. One method of testing for reliability is the internal consistency method. Internal consistency involves correlating the responses to questions in the questionnaire with each other (Saunders et al., 2015), to check the reliability of the instrument Cronbach's coefficient alpha was calculated the result should be above 0.7. According to (Bryman and Bell, 2007), Cronbach's alpha result of 0.7 and above implies an acceptable level of internal reliability. So, the instrument can be considered a reliable instrument.

Cronbach's alpha is a coefficient of reliability. It is commonly used as a measure of the internal consistency or reliability of a psychometric test score for a sample of examinees. Cronbach's alpha reliability coefficient normally ranges between 0 and 1.

Rule of Thumb of Cronbach's Alpha

Cronbach's Alpha	Description
>= 0.9	Excellent
>= 0 .8 but < 0 .9	Good
>= 0.7 but < 0.8	Acceptable
>= 0.6 but < 0 .7	Questionable
>= 0 .5 but < 0 .6	Poor
< = 0 .5	Unacceptable

Source: (Zikmund. W, 1997)

Based on this to ensure reliability this study used a self-administered questionnaire. Then the questionnaires are pre-tested based on a pilot study, to assurance a common understating of questions among respondents. The alpha results for the items of the questionnaire and their alpha values have met an acceptable figure (which is > = 0.70) concerning the above-mentioned requirement ranges.

The researcher validity test was applied according to the SPSS result shown below in Table 3, the Cronbach Alpha is:

TABLE 3: RELIABILITY STATISTICS RESULT OF THE STUDY

Variables	Cronbach's Alpha	No. of Items
Quality of service	.924	15
Regulatory environment	.831	11
Economic Factor	.892	7
Freight forwarding network	.914	3
Technology Adaption	.854	3
International Trade Operation	.923	6

Cronbach's Alpha	.9015
N	45
%	100.0
N of Items	45

a. List-wise deletion based on all variables in the procedure.

Accordingly, the reliability test for the overall questioners is 0.9015, which is regarded as very high (Excellent) (George D. & Mallery P., 2003)

3.11.3 Pilot Study/Pre-test

Even after the researcher has proceeded along the lines suggested, the draft questionnaire is a product changed by one or two attentions only, and with respondents, it is impossible to say whether it is going to achieve the desired results. For this reason, the researcher distributed 10% of the total sample size of 198 (0.1*187) = 20 respondents) questionnaires to pre-test the questionnaire before it was used in a full-scale survey to identify any mistakes that need correcting. After the pre-test, the researcher used the SPSS test.

3.12 Ethical Considerations

In conducting the study, the researcher was considering the next ethical approaches:

- The researcher involved respondents in the research who chose to participate freely, without coercion.
- The researcher ensured that there was no exploitation for the personal gain of the research population.
- The researcher didn’t influence respondents or others to participate in the research.
- The researcher took cultural, religious, gender, and other significant differences into account within the research population.
- The researcher ensured the privacy of participants by keeping their identities confidential and not collecting any data that could identify them.
- The researcher used the data only for the intended purpose, which was the academic purpose. To sum up, this chapter deals with the overall research design of the study, which gives a clear pathway about what kind of data is required and from whom, how to gather those data, and how to analyze and present those data in an orderly manner.

CHAPTER FOUR

4 ANALYSIS AND INTERPRETATION OF DATA

4.1 Introduction

The objective of this study is to assess the effect of freight forwarding on international trade operations: within the three selected companies. Therefore, this chapter will present the results and discussion to answer the above-mentioned questions. The results are based on the data collected using quantitative and qualitative measures. In the first section of this chapter, the biographical data of the sampled employee will be provided. The next section presents the results from the quantitative and qualitative data.

4.2 General Information about the Respondents

Based on the study's purpose, the effect of freight forwarding on international trade operations, data were collected from employees working in Ethiopian Shipping and Logistics Service Enterprise, Freighters International PLC, and Panafric Global. The frequency and distribution of the respondents are illustrated in the table below.

TABLE 4: FREQUENCY AND PERCENTAGE DISTRIBUTION OF RESPONDENTS

No.	Target group	Distribute questionnaire	Returned questionnaire	Valid percentage
1	Employee	198	193	97.47%
	Total	**198**	**193**	

As can be seen from the above table, 198 questionnaires were distributed to employees and 193 (97.47%) were properly filled and returned to the researcher.

4.3 Demographic Characteristics of the Respondents

The various demographic factors of the respondents of this study include; sex, age, level of education, and the length of years in each organization.

TABLE 5: DEMOGRAPHIC CHARACTERISTICS OF RESPONDENTS.

Gender of the respondent employee			
		Freq	%
Valid	Male	121	62.69
	Female	72	37.31
	Total	193	100.00

Age of the respondent Employee			
		Freq	%
Valid	20 – 30	71	36.79
	31-40	54	27.98
	41-50	45	23.32
	Over 51	23	11.92
	Total	193	100.00

Qualification of the respondent Employee			
		Freq	%
Valid	High School qualified	0	0.00
	College diploma	15	7.77
	First degree	162	83.94
	Masters & above	16	8.29
	Total	193	100.00

Work experience of the respondent Employee			
		Freq	%
Valid	Below 1 years	0	0.00
	1- 5 years	11	5.70
	6 – 10 years	101	52.33
	11 – 15 years	38	19.69
	16 – 20 years	18	9.33
	Above 20 years	25	12.95
	Total	193	100.00

Source: Primary Data (2024)

As indicated in Table 5, The data reveals a significant skew towards male employees, with 121 (62.69%) individuals identified as male compared to only 72 (37.31%) identified as female

employees. The overrepresentation of male participants in this study raises questions about the factors influencing gender participation in the international trade industry. It is essential to consider potential barriers that may hinder female involvement. Understanding the reasons behind this gender disparity is crucial for addressing potential biases and promoting gender equality within the international trade sector cultural and societal factors, educational and training opportunities, and workplace policies and practices.

In regards to age, the majority 71 (36.79%) of respondent employees are ranged from 20-30 years old, 54 (27.98%) of the respondent employees fall within the age of 31 - 40 and 45 (23.32%) of employee fall with the age range of 41-50, and 23 (11.92%) of them are over 51 years. The results indicate that most of the employees who are in middle age show more maturity and responsibility to perform tasks productively.

In concern to education levels, 15 (7.77%) of the respondents have a college diploma, the standard. The majority of the respondents employees 162 (83.94%) of employees have a Bachelor's degree the remaining respondents are master holders 16 (8.29%) respectively. This indicates that employees meet the expected standard.

Based on an array of studies concerning the experiences of the employee, the majority 101 (52.33%) and 38 (19.69%) of them have served above 6 – 10 years and 11 – 15 years respectively, This indicates a strong core of employees with established knowledge and familiarity with the operations. While 43 (22.28%), of them have served above 16 years, these employees represent a valuable source of institutional knowledge and experience. The remaining 11 (5.70%) of employees worked below 1 year respectively this segment signifies ongoing recruitment efforts and potential for fresh perspectives.

4.4 The effect of freight forwarding on international trade operations

TABLE 6: IMPACT OF THE OVERALL EFFICIENCY AND COST OF INTERNATIONAL TRADE OPERATIONS IN ETHIOPIA?

	Efficiency	N	Mean	Std. Deviation
1.	Freight forwarders effectively manage the documentation process for international trade.	193	3.24	1.202
2.	Freight forwarders contribute to faster cargo clearance at customs.	193	2.69	1.301
3.	The use of freight forwarders reduces overall lead time in the supply chain.	193	3.28	1.216
4.	The use of freight forwarders improves the visibility of cargo movement.	193	2.89	1.125
	Cost			
5.	Freight forwarders offer competitive rates for freight forwarding services.	193	2.35	1.134
6.	Freight forwarders provide cost-effective warehousing and storage solutions.	193	2.63	1.075
7.	The use of freight forwarders helps minimize cargo damage and loss costs.	193	3.21	1.027
	Overall Impact			
8.	The use of freight forwarders improves the competitiveness of Ethiopian exporters.	193	3.49	1.134
9.	Freight forwarders support the growth of small and medium-sized enterprises (SMEs) in international trade.	193	3.65	1.075
10.	The use of freight forwarders improves the overall customer satisfaction of international traders.	193	3.45	1.027
11.	Freight forwarders stay updated with the latest industry regulations and standards.	193	3.26	1.347
12.	Freight forwarders have a strong understanding of the Ethiopian market and trade environment.	193	3.01	.347
13.	Overall, freight forwarders positively impact the efficiency and cost of international trade operations in Ethiopia.	193	3.24	1.027

Source: Primary Data (2024)

Based on the analysis in table 6; the respondent's affirmation of freight forwarders' effective management of the documentation process for international trade, with a mean result of 3.24 on a presumed Likert scale, indicates a generally positive perception of their capabilities in this area. This assessment suggests that respondents believe freight forwarders are proficient in handling the complex and often burdensome paperwork associated with international shipments.

The mean result of 2.69 for the statement "Freight forwarders contribute to faster cargo clearance at customs" falls into the "undecided" category. This suggests that the respondents' opinions are

divided on this matter. While some respondents may believe that freight forwarders play a significant role in expediting customs clearance, others may hold reservations or have had mixed experiences. Several factors could contribute to this undecided response. One possibility is that the respondents have encountered varying levels of efficiency from different freight forwarders. Some forwarders may have demonstrated expertise in navigating customs procedures and streamlining the clearance process, leading to positive experiences. In contrast, others may have faced delays or challenges due to factors such as inefficient communication, inadequate documentation, or insufficient knowledge of customs regulations.

The respondent's statement, "The use of freight forwarders reduces overall lead time in the supply chain," is a significant assertion with implications for the efficiency and effectiveness of logistics operations. The mean result of 3.28, while requiring further context to interpret definitively, likely indicates a notable reduction in lead time when utilizing freight forwarders. This finding aligns with established knowledge in the field of supply chain management, where freight forwarders are recognized for their expertise in streamlining transportation processes, consolidating shipments, and managing customs clearance. However, the respondent's statement indicates a neutral or undecided stance on the proposition that the use of freight forwarders enhances cargo movement visibility. The mean result of 2.89 suggests a moderate level of agreement.

Regarding cost as the effect of freight forwarding on the international trade operation. The provided data indicates that respondents have a mixed view of the competitive rates and cost-effective warehousing services offered by freight forwarders. A mean score of 2.35 on the statement "Freight forwarders offer competitive rates for freight forwarding services" suggests that respondents are leaning towards disagreement. This implies that a significant portion of respondents do not perceive freight forwarders as providing the most competitive rates in the market.

On the other hand, a mean score of 2.63 on the statement "Freight forwarders provide cost-effective warehousing and storage solutions" indicates a more neutral stance. This suggests that respondents are undecided or have mixed feelings about the cost-effectiveness of these services. The respondent's statement, "The use of freight forwarders helps minimize cargo damage and loss costs," is supported by their mean result of 3.21, which indicates agreement. This suggests that the majority of respondents believe that utilizing freight forwarders is an effective strategy for reducing the financial impact of cargo damage and loss during transportation. Freight forwarders play a

crucial role in the logistics industry by acting as intermediaries between shippers and carriers. They offer a range of services, including booking transportation, preparing documentation, customs clearance, and insurance arrangements. By entrusting these tasks to experienced freight forwarders, businesses can significantly minimize the risks associated with cargo damage and loss.

The mean scores of 3.49 and 3.45, respectively on the statement "The use of freight forwarders improves the competitiveness of Ethiopian exporters. and The use of freight forwarders improves the overall customer satisfaction of international traders", regarding the impact of freight forwarders on Ethiopian exporters' competitiveness and international traders' customer satisfaction, strongly support the assertion that freight forwarders play a vital role in enhancing both aspects. These findings highlight the value of utilizing freight forwarders as strategic partners in international trade, contributing to the overall success and growth of the Ethiopian export industry.

The respondent's statement provides valuable insights into the role of freight forwarders in supporting the growth of small and medium-sized enterprises (SMEs) in international trade. The assertion that freight forwarders play a pivotal role in facilitating SME expansion is substantiated by the high mean rating of 3.65. This suggests a strong consensus among respondents that these logistics experts provide essential services that enable SMEs to compete effectively in global markets. One of the primary ways freight forwarders contribute to SME growth is by offering specialized logistics solutions tailored to the unique needs of these businesses. By managing complex tasks such as customs clearance, transportation, and insurance, freight forwarders alleviate the operational burdens faced by SMEs, allowing them to focus on core competencies and expand their market reach. Additionally, freight forwarders can leverage their industry expertise to negotiate favorable shipping rates and terms, helping SMEs reduce costs and improve profitability.

Moreover, the respondent's statement highlights the importance of freight forwarders staying well-informed of the latest industry regulations and standards. The mean rating of 3.26 indicates a general agreement that these professionals are committed to maintaining compliance and ensuring the smooth flow of goods across borders. By staying informed about evolving regulations, freight forwarders can provide SMEs with accurate guidance and minimize the risk of costly penalties or delays.

TABLE 7: THE PRIMARY CHALLENGES THAT AFFECT ETHIOPIAN COMPANIES IN MANAGING FREIGHT FORWARDING ACTIVITIES IN TERMS OF TECHNOLOGY, FREIGHT FORWARDING NETWORK, ECONOMIC, AND REGULATORY ENVIRONMENT.

	Operational Challenges	N	Mean	Std. Deviation
1.	Cargo damage during transportation is a frequent issue.	193	2.76	.800
2.	Customs clearance procedures are time-consuming and complex.	193	3.62	.479
3.	The Company experiences delays in cargo delivery due to inefficient port operations.	193	3.55	1.049
4.	There is a lack of adequate warehousing and storage facilities.	193	2.89	1.230
5.	The Company faces difficulties in tracking and tracing cargo shipments.	193	2.05	1.134
6.	The company experiences frequent cargo theft and pilferage.	193	1.63	1.134
7.	The company struggles with managing documentation and paperwork related to freight forwarding.	193	3.44	1.075
	Economic Challenges			
8.	High transportation costs negatively impact our profitability.	193	3.25	1.027
9.	Fluctuations in exchange rates affect our freight forwarding operations.	193	3.55	.347
10.	The company faces financial challenges due to delayed payments from customers.	193	3.42	1.027
11.	The company struggles with cash flow management due to freight forwarding activities.	193	3.15	1.012
	Regulatory Challenges			
12.	Complex and changing import/export regulations hinder our operations.	193	3.23	1.027
13.	Customs inspections and procedures are often inconsistent.	193	3.03	.347
14.	Obtaining necessary permits and licenses for freight forwarding is time-consuming.	193	3.22	1.027
	Technological Challenges			
15.	The company faces challenges in integrating freight forwarding systems with our ERP (Enterprise resource planning).	193	3.01	1.230
16.	The company struggles with data security and privacy issues in freight forwarding.	193	2.12	1.134
17.	The adoption of digital platforms in the freight industry is slow.	193	2.66	1.120
	Supply Chain Challenges			
18.	The company experiences frequent disruptions in the global supply chain.	193	3.20	1.301
19.	The company faces challenges in coordinating with multiple transportation modes.	193	3.22	1.216
20.	The company struggles with managing inventory levels due to freight uncertainties.	193	3.14	1.125

Source: Primary Data (2024).

Based on the response rate of respondents in Table 7; Customs clearance procedures are time-consuming and complex, The Company experiences delays in cargo delivery due to inefficient port operations, and The company struggles with managing documentation and paperwork related to freight forwarding with the mean results of 3.62, 3.55, and 3.44 respectively agreed." The provided mean scores of 3.62, 3.55, and 3.44 for the statements regarding customs clearance procedures, port operations, and documentation management, respectively, indicate a significant level of agreement among respondents. These findings suggest that the perceived challenges faced by the company in these areas are widespread and substantial.

Customs clearance procedures suggest a strong consensus among respondents that these processes are indeed time-consuming and complex. This sentiment is likely rooted in the bureaucratic nature of customs regulations, the requirement for extensive documentation, and potential delays arising from inspections and verifications. Respondents appear to perceive significant inefficiencies in the operations of the ports, which may include congestion, inadequate infrastructure, and slow turnaround times for vessels. These issues can lead to delays in cargo delivery, increased costs, and reduced overall efficiency. A mean score of 3.44 for the statement regarding documentation and paperwork management indicates that this is a significant challenge for the company. The complexity of freight forwarding procedures often requires a substantial amount of documentation, including invoices, customs declarations, and shipping documents. Respondents may have experienced difficulties in organizing, tracking, and ensuring the accuracy of these documents.

The combined findings from these three statements paint a picture of a company that is grappling with multiple challenges related to logistics and supply chain management. The time-consuming nature of customs clearance procedures, combined with inefficient port operations and difficulties in managing documentation, can lead to delays, increased costs, and decreased customer satisfaction. To address these issues, the company may need to explore strategies such as investing in technology solutions, streamlining processes, and building stronger relationships with customs authorities and port operators.

"Cargo damage during transportation is a frequent issue. And there is a lack of adequate warehousing and storage facilities with the mean results of 2.76, and 2.89 respectively undecided", the provided data indicates that respondents hold a nuanced perspective on the challenges associated with cargo transportation and storage. While both issues were identified as significant

concerns, the mean scores of 2.76 and 2.89, respectively, suggest that a majority of respondents were undecided or expressed mixed sentiments. This ambiguity underscores the complexity of these issues and the potential for varying experiences and opinions among stakeholders.

The mean result of 2.05 for difficulties in tracking and tracing cargo shipments indicates a moderate level of concern among respondents. This suggests that while the company may have some systems in place for tracking, they are not consistently effective or comprehensive. The mean result of 1.63 for cargo theft and pilferage indicates a somewhat lower level of concern compared to tracking and tracing challenges. However, even a single incident of theft or pilferage can have a significant impact on a business.

Regarding economic challenges, the respondent's overall assessment suggests that these challenges are having a significant impact on the company's financial performance. The combination of high transportation costs, exchange rate volatility, delayed payments, and cash flow issues creates a challenging operating environment. To address these challenges, the company may need to implement a combination of strategies, such as Cost reduction measures, Risk management techniques, Improved credit management: Strengthening credit policies, improving collection procedures, considering factoring or invoice discounting, and Enhancing cash flow management.

Based on the result of table 7, on regulatory challenges, the respondent's statement provides valuable insights into the challenges faced by businesses engaged in import/export activities. The key themes that emerge from the response are Regulatory Complexity and Inconsistency, Bureaucratic Hurdles such as Permit and License Requirements, and Impact on Operations.

The mention of a "mean result of agreed" suggests that the respondent's views are likely shared by a significant number of other businesses in the industry. This consensus reinforces the severity of the challenges faced by importers and exporters. To address these challenges, policymakers and regulatory bodies must work to simplify regulations, improve efficiency, and create a more supportive business environment.

Regarding technology challenges, the respondent's responses provide valuable insights into the challenges faced by the company in the territory of freight forwarding. The mean scores indicate a clear consensus on the difficulties associated with integrating freight forwarding systems with the company's ERP, while there is a more nuanced perspective on data security and privacy issues and

the pace of digital platform adoption. The strong agreement (mean score of 3.01) regarding integration challenges suggests that the company is dealing with significant hurdles in synchronizing its freight forwarding operations with its broader enterprise resource planning system. These challenges could stem from a variety of factors, such as incompatible data formats, disparate workflows, or inadequate technical infrastructure. The integration difficulties may lead to inefficiencies, errors, and delays in the supply chain. For instance, discrepancies between freight forwarding data and ERP records can result in inaccurate inventory levels, missed delivery deadlines, and increased costs. To address these challenges, the company may need to invest in specialized integration software, develop robust data mapping procedures, and establish clear communication channels between the freight forwarding and ERP teams.

The respondents' disagreement (mean score of 2.12) with the statement regarding data security and privacy issues indicates that they perceive these concerns to be relatively less pressing. However, it is important to note that data security and privacy are becoming increasingly critical in the freight industry, especially as companies handle sensitive information such as customer data, shipment details, and financial transactions. Breaches of data security can have severe consequences for a company's reputation, financial standing, and customer trust.

The undecided response (mean score of 2.66) to the statement about digital platform adoption suggests that the respondents are divided on this issue. Some may view digital platforms as promising tools for improving efficiency, reducing costs, and enhancing customer satisfaction. Others may be hesitant to adopt new technologies due to concerns about cost, complexity, or potential disruptions to existing processes. The slow adoption of digital platforms in the freight industry may be attributed to a variety of factors, including resistance to change, lack of technical expertise, and concerns about data security and privacy. To accelerate digital transformation, the company may need to invest in training and development programs for its employees, partner with technology providers, and develop a clear digital strategy.

Regarding the response of supply chain management, the respondent's responses paint a clear picture of the company's significant challenges within its global supply chain. All three statements indicate a high level of agreement among respondents, suggesting that these issues are persistent and widely recognized within the organization. The mean score of 3.20 for supply chain disruptions suggests a strong consensus among respondents that the company frequently encounters

disruptions. This could be attributed to various factors, such as geopolitical events, natural disasters, economic instability, or technological failures. These disruptions can lead to delays in production, increased costs, and decreased customer satisfaction.

The mean score of 3.22 for challenges in coordinating multiple transportation modes highlights the complexity of the company's logistics operations. Coordinating shipments across different modes of transportation, such as rail, road, air, and sea, requires careful planning, communication, and collaboration. Inefficient coordination can result in delays, higher transportation costs, and increased risk of damage or loss.

The mean score of 3.14 for difficulties in managing inventory levels due to freight uncertainties indicates that the company struggles to maintain optimal stock levels. Freight uncertainties, such as fluctuating shipping rates, unreliable delivery times, and unexpected delays, can make it difficult to accurately forecast demand and replenish inventory. Overstocking can lead to increased storage costs and obsolescence, while under stocking can result in lost sales and customer dissatisfaction.

Based on the results one can conclude the combined responses suggest that the companies are grappling with a complex set of challenges within their supply chain. These issues are interconnected and can have a significant impact on the company's profitability, competitiveness, and reputation. To address these challenges, the companies may need to invest in improved planning, risk management, and technology solutions. Additionally, enhancing collaboration with suppliers, logistics providers, and customers can help to improve supply chain resilience and efficiency.

TABLE 8: FREIGHT FORWARDING NETWORK STRATEGIES THAT CAN BE IMPLEMENTED TO ENHANCE THE PERFORMANCE OF FREIGHT FORWARDING SERVICES IN ETHIOPIA

	Customer Perspective	N	Mean	Std. Deviation
1.	Improving real-time tracking and visibility of shipments would enhance performance.	193	4.01	.900
2.	Offering competitive pricing is crucial for improving freight forwarding services.	193	4.34	1.079
3.	Efficient customs clearance procedures are essential for customer satisfaction.	193	4.69	.106
4.	Reliable and timely delivery is a key factor in enhancing performance.	193	4.04	.327

5.	Effective communication with customers is vital for building trust.	193	4.51	.670
	Operational Efficiency			
6.	Streamlining documentation processes can enhance operational efficiency.	193	4.29	1.104
7.	Investing in advanced transportation management systems is crucial.	193	4.56	.589
8.	Optimizing warehouse and storage facilities improves performance.	193	4.46	1.124
9.	Implementing efficient route planning and scheduling is essential.	193	4.92	1.273
10.	Effective risk management strategies contribute to overall performance.	193	4.06	.491
	Supply Chain Collaboration			
11.	Strong partnerships with suppliers and carriers are essential for performance.	193	3.56	.589
12.	Effective communication and collaboration with stakeholders improve efficiency.	193	3.89	.587
13.	Collaborative problem-solving improves overall supply chain performance.	193	3.90	.945

Source: Primary Data (2024)

Based on the result of Table 8, the respondent's responses to the survey items provide valuable insights into their perceived priorities and expectations for freight forwarding services. By analyzing these responses, we can gain a deeper understanding of the factors that they believe contribute to enhanced performance and customer satisfaction. The respondent strongly agrees that improving real-time tracking and visibility of shipments is essential for enhancing performance with a mean result of 4.01. This suggests that they value transparency and the ability to monitor the progress of their shipments in real-time. Real-time tracking can help to reduce uncertainty, improve customer satisfaction, and potentially identify and address issues proactively.

The respondent also strongly agrees that offering competitive pricing is crucial for improving freight forwarding services with a mean result of 4.34. This indicates that cost is a significant factor in their decision-making process. Competitive pricing can attract new customers, retain existing ones, and contribute to the overall profitability of the freight forwarding business. The respondent emphasizes the importance of efficient customs clearance procedures for customer satisfaction. Delays and complications during customs clearance can lead to frustration and dissatisfaction. The respondent strongly agrees that efficient customs clearance processes help to ensure timely delivery,

reduce costs, and improve the overall customer experience with a mean result of 4.69. The respondent also believes that reliable and timely delivery is a key factor in enhancing performance with the mean result of 4.04. This aligns with the expectations of many customers who require their shipments to arrive on time and in good condition. Consistent and punctual delivery can strengthen customer relationships, improve reputation, and drive business growth. The respondent highlights the importance of effective communication with customers for building trust with a mean result of 4.51. Open and transparent communication can help to address concerns, provide updates, and foster positive relationships. Effective communication can also improve customer satisfaction and loyalty.

The respondent's statement highlights several critical areas within supply chain management that, when addressed, can significantly enhance operational efficiency and overall performance with the result of 4.29. These areas include streamlining documentation processes, investing in advanced transportation management systems, optimizing warehouse and storage facilities, implementing efficient route planning and scheduling, utilizing technology for freight consolidation, and effective risk management. The respondent's strong agreement with this statement suggests recognition of the cumbersome nature of traditional documentation processes. Excessive paperwork can lead to delays, errors, and increased costs. By streamlining these processes, organizations can improve efficiency, reduce errors, and free up valuable resources for other critical tasks.

The emphasis on advanced transportation management systems underscores the importance of technology in modern supply chains. These systems can optimize routes, improve fleet utilization, track shipments in real-time, and provide valuable data for decision-making. By investing in such systems, organizations can enhance their transportation operations, reduce costs, and improve customer satisfaction. The respondent's agreement with this statement highlights the significance of well-managed warehouse and storage facilities. Efficient storage practices, proper inventory management, and optimized space utilization can contribute to improved operational efficiency, reduced costs, and faster order fulfillment.

The importance of efficient route planning and scheduling is evident in the respondent's response. By optimizing delivery routes, organizations can reduce transportation costs, minimize fuel consumption, and improve customer service. Advanced route planning software can help identify the most efficient routes, taking into account factors such as traffic conditions, delivery windows,

and vehicle capacities. The respondent's support for utilizing technology for freight consolidation indicates recognition of the potential cost savings associated with combining shipments. By consolidating freight, organizations can reduce transportation costs, improve truck utilization, and minimize environmental impact. Technology can play a crucial role in identifying opportunities for consolidation and coordinating the movement of shipments. The respondent's strong agreement with the importance of risk management strategies highlights the need for organizations to be prepared for unexpected challenges. By identifying and mitigating potential risks, such as supply chain disruptions, natural disasters, or economic downturns, organizations can protect their operations, maintain customer satisfaction, and enhance their overall resilience.

The respondent's responses to the given statements indicate a strong belief in the potential of various strategies to enhance operational efficiency and overall performance. These strategies are centered on streamlining documentation processes, investing in advanced transportation management systems, optimizing warehouse and storage facilities, implementing efficient route planning and scheduling, and effective risk management. The respondent recognizes that reducing paperwork and simplifying documentation can lead to faster decision-making, reduced errors, and increased productivity. Streamlined processes can also result in significant cost savings by minimizing administrative overhead and reducing the need for manual data entry. Efficient documentation can help ensure compliance with regulatory requirements and industry standards, mitigating legal risks.

The respondent understands the importance of having real-time visibility into transportation operations with a mean result of 4.56, enabling better tracking of shipments, optimizing routes, and improving customer service. Advanced systems can help identify inefficiencies in transportation networks, leading to reduced fuel consumption, lower maintenance costs, and minimized transportation expenses.

The respondent believes that efficient warehouse layout and storage practices can maximize space utilization, reduce handling costs, and improve inventory accuracy with a mean result of 4.46. Optimized facilities can support effective inventory management, ensuring that the right products are available at the right time and in the right quantities. Proper storage and handling practices can also contribute to a safer working environment, reducing the risk of accidents and injuries.

The respondent recognizes that efficient route planning can help minimize travel time, reduce fuel consumption, and improve on-time delivery performance with a mean result of 4.92. Effective scheduling can ensure that resources, such as vehicles and drivers, are allocated optimally to meet demand and avoid bottlenecks. Timely deliveries and efficient transportation operations can enhance customer satisfaction and loyalty.

The respondent emphasizes the importance of proactively identifying and addressing potential risks to protect the organization's assets, reputation, and financial performance with a mean result of 4.06. Effective risk management can help ensure that the organization can continue operations even in the face of disruptions or emergencies. By managing risks effectively, the organization can gain a competitive advantage by demonstrating its resilience and commitment to responsible business practices.

Based on the result in Table 8 on Supply Chain Collaboration the provided data, consisting of three statements and their respective mean results 3.56, 3.89, and 3.90, offers valuable insights into the perceived importance of specific factors in enhancing supply chain performance. The mean result of 3.56 for this statement indicates a generally positive agreement among respondents regarding the essentiality of strong partnerships with suppliers and carriers. Such partnerships can significantly influence supply chain performance in several ways. Reliability and consistency, information sharing, and risk mitigation

Effective Communication and Collaboration with Stakeholders results in a mean result of 3.89, this statement highlights the critical role of effective communication and collaboration with stakeholders in improving supply chain efficiency. This includes internal stakeholders (e.g., departments, teams) as well as external stakeholders (e.g., customers, suppliers, carriers). Collaborative problem-solving results in the highest mean result of 3.90 for this statement underscores the importance of collaborative problem-solving in enhancing overall supply chain performance.

The findings presented in this descriptive statement provide valuable insights into the factors that respondents perceive as crucial for enhancing supply chain performance. Strong partnerships with suppliers and carriers, effective communication and collaboration with stakeholders, and collaborative problem-solving are all essential elements for achieving a high-performing supply

chain. By prioritizing these factors, organizations can improve their supply chain efficiency, resilience, and overall competitiveness.

4.5 Inferential Statistics Analysis

In this section, the result of inferential statistics employed in the study supported on Pearson correlation coefficient, and multiple regressions were elaborated.

4.5.1 Correlation Coefficient

As the questionnaire was designed on the Likert scale (strongly disagree to strongly agree) mainly it is considered as partial interval scale, so the suitable correlation matrix for this scale is Pearson's correlations coefficient matrix. The person's correlation results between all the independent variables and dependent variables are precisely depicted in Table 9.

TABLE 9: THE RESULTS OF PEARSON'S CORRELATION COEFFICIENT

Correlations							
		Quality of services	Technology adoption	Freight forwarding network	Economic factors	Regulatory environment	International Trade Operations
Quality of services	Pearson Correlation	1					
	Sig. (2-tailed)						
	N	193					
Technology adoption	Pearson Correlation	.743**	1				
	Sig. (2-tailed)	.000					
	N	193	193				
Freight forwarding network	Pearson Correlation	.774**	.738**	1			
	Sig. (2-tailed)	.000	.000				
	N	193	193	193			
Economi	Pearson Correlatio	.820**	.792**	.732**	1		

c factors	n						
	Sig. (2-tailed)	.0003	.000	.000			
	N	193	193	193	193		
Regulatory environment	Pearson Correlation	.890**	.992**	.878**	.864**	1	
	Sig. (2-tailed)	.0003	.000	.000	.000		
	N	193	193	193	193	193	
International Trade Operations	Pearson Correlation	.720**	.712**	.832**	.912**	.892**	1
	Sig. (2-tailed)	.0003	.000	.000	.000	.000	
	N	193	193	193	193	193	193

Source, field data (2024) SPSS output

As depicted in Table 9, stated that Quality of services, Technology adoption, Freight forwarding, network, Economic factors, and Regulatory environment, would be positively significant and correlated with International Trade Operations and all independent variables of this study were statistically significant.

As the correlation result indicates, the Quality of services ($r(193) = .720, p < .01$) had a significantly strong correlation with International Trade Operations. This correlation coefficient suggests a strong, direct relationship between these two variables, implying that as the quality of services improves, international trade operations tend to increase.

In other words, countries or regions with higher-quality services are more likely to experience greater success in their international trade endeavors. This could be attributed to factors such as improved efficiency, increased competitiveness, and enhanced customer satisfaction, all of which are essential components of successful international trade.

The correlation analysis revealed a significantly strong positive association between technology adoption and international trade operations ($r (193) = .712, p < .01$). This indicates that as technology adoption increases, so too does the effectiveness and efficiency of international trade operations. This finding suggests that technological advancements, such as digital platforms, communication tools, and supply chain management systems, play a crucial role in facilitating

global commerce. Furthermore, it highlights the importance of embracing technological innovations to enhance competitiveness and foster economic growth in the international marketplace.

A strong and significant correlation was found between the freight forwarding network and international trade operations ($r (193) = .832$, $p < .01$). This indicates that the network of freight forwarders plays a substantial role in facilitating and supporting international trade activities. In other words, the more robust and efficient the freight forwarding network, the more likely it is that international trade will thrive. The high correlation coefficient ($r = .832$) suggests a strong, positive relationship, implying that as the freight forwarding network improves, so too does international trade.

A strong positive correlation was observed between economic factors and international trade operations ($r (193) = .912$, $p < .01$). This significant relationship indicates that as economic factors increase or decrease, international trade operations tend to follow suit in a similar direction. In other words, fluctuations in economic conditions are closely linked to the performance of international trade activities.

The high correlation coefficient of .912 suggests a strong association between the two variables. This implies that changes in economic factors are likely to have a substantial impact on international trade operations. For instance, economic growth, characterized by increased GDP, consumer spending, and investment, may lead to a rise in demand for imported goods and services, boosting international trade. Conversely, economic downturns, such as recessions, can reduce demand and delay international trade activities.

The regulatory environment, as measured in this study, demonstrated a highly significant and positive correlation with international trade operations. This finding, indicated by a correlation coefficient of $r (193) = .892$ and a p-value less than .01, suggests that countries with more favorable regulatory frameworks exhibit higher levels of international trade activity. This strong association implies that a conducive regulatory environment, encompassing factors such as trade policies, customs procedures, and intellectual property protection, plays a pivotal role in facilitating and encouraging cross-border commerce.

4.6 Testing Assumptions of Linear Regression Model

To estimate the parameters in multiple linear regression models and minimize the sum of squared error or the difference between an observed value and predicted value ordinary least square method (OLS) method was employed for this study. While using the OLS method to have the correct estimator value the five key underlying assumptions should be satisfied. When the assumptions are violated OLS estimators produce biased, inconsistent, and inefficient results. Therefore tests of hypothesis are no longer valid since the standard errors are wrong. Therefore, to protect against the chance of getting and interpreting wrong regression results the researcher conducted a diagnostic test. To make sure that the model is unbiased, consistent, efficient, and valid the following tests are conducted.

4.6.1 All the variables are continuous

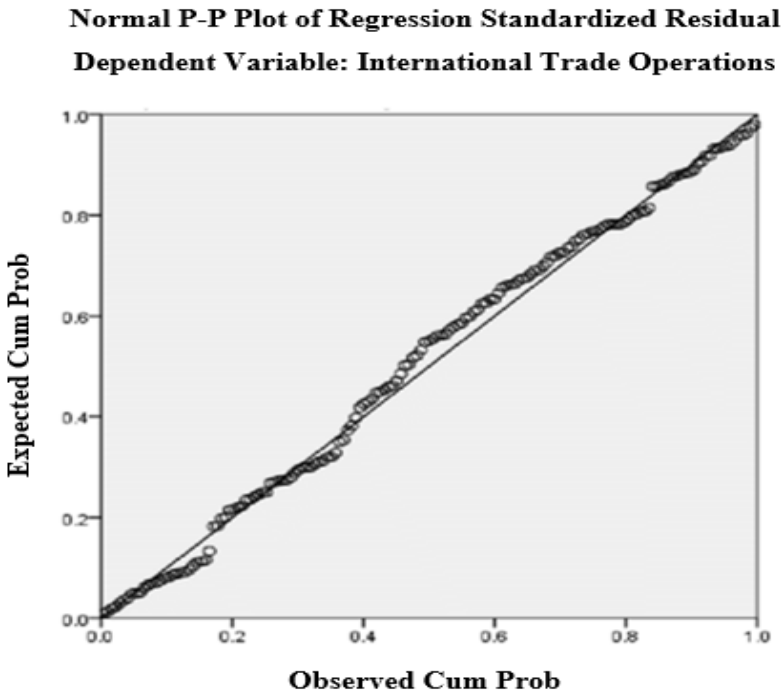
While regression analysis is a powerful tool for understanding relationships between variables, the underlying assumptions of the model can be violated by using categorical or non-normally distributed data. Transforming variables, particularly independent variables, can address these issues and lead to more reliable and interpretable results. By transforming variables strategically, we can ensure that our regression analysis produces reliable results and provides valuable insights into the relationships between variables under study. The researcher transforms the independent and dependent variables to be continuous.

4.6.2 Normal P-P Plot of Regression

Checking the normality of residuals with a Normal P-P Plot is a crucial step in regression analysis. It safeguards the validity of inferences drawn from the model and helps identify potential issues in the data or the model itself. By addressing non-normality, regression analysis produces reliable and insightful results. Interpretations of regression results, such as significance tests and confidence intervals, rely on the normality assumption. If residuals deviate significantly from normal distribution, these inferences become unreliable. P-values indicate the probability of observing the obtained results by chance alone. When residuals are non-normal, p-values might be inflated (less significant results appear significant) or deflated (significant results appear less significant), leading to misleading conclusions. Confidence intervals represent the range of values likely to contain the

true population parameter. Non-normal residuals can distort these intervals, making them unreliable estimates of the true parameter. Deviations from normality in the P-P Plot can signal potential problems in the data or model.

FIGURE 2: NORMAL P-P PLOT OF REGRESSION STANDARDIZED RESIDUAL



By understanding and interpreting the straight-line p-p plot of standardized residuals, we can ensure the regression analysis is based on valid assumptions and leads to reliable results. Therefore, from the above figure 2, we can conclude that the skewed residuals indicate constant variance (heteroscedasticity). This is a good sign, as it supports the assumption of normality of errors in linear regression.

4.6.3 The Durbin-Watson Test

The Durbin-Watson (DW) test is a statistical tool used to assess whether the error terms in a regression analysis are independent of each other. In other words, it checks for autocorrelation in the residuals, which are the differences between the actual observed values and the values predicted by the regression model. If the value is between 1.5 – 2.5 there is no relationship between the residual variable and the independent variable.

TABLE 10: INDEPENDENCE OF ERRORS (DURBIN-WATSON) TEST

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.498a	.248	.235	.45373	1.832

a. Predictors: (Constant), Quality of services, Technology adoption, Freight forwarding network, Economic factors, Regulatory environment
b. Dependent Variable: International Trade Operations

Based on Table 10, the researcher can conclude there is no relation between the residual and the independent variable with (DW=1.832). This shows that the researcher can proceed with interpreting the regression results.

4.6.4 Test of Normality

In conclusion, testing for normality is a safeguard against misleading statistical results. By ensuring the data adheres to the underlying assumptions of many common tests, we can draw more reliable conclusions about the relationships and patterns within our data. This test is preferred for smaller samples (less than 2000). It outputs a significance (Sig.) value. If Sig. > alpha (usually 0.05), we fail to reject the null hypothesis of normality.

TABLE 11: TEST OF NORMALITY

Tests of Normality

	Kolmogorov-Smirnova			Shapiro-Wilk		
	Statistic	Df	Sig.	Statistic	df	Sig.
Studentized Residual	.040	254	.201	.987	254	.071

a. Lilliefors Significance Correction

The Shapiro-Wilk test evaluates how well the data resembles a normal distribution. The best result depends on the statistical analysis. A high p-value is the preferred outcome for normality testing with the Shapiro-Wilk test.

The result obtained in Table 11, shows that the Shapiro-Wilk test indicates that all the variables had a p-value greater than (0.05), the variables involved in the study follow a normal distribution, therefore, it can be concluded that the residual value is normally distributed so that the regression analysis procedures have been fulfilled.

4.6.5 Test for Multi-collinearity

Multi-collinearity is a condition where independent variables in a regression model are highly correlated, which can lead to misleading results and hinder interpretation. Testing for multi-collinearity helps the researcher identify and address a potential problem in linear regression that arises when independent variables (predictors) are highly correlated with each other. This can inflate the variance of the regression coefficients, making it difficult to interpret their individual effects on the dependent variable (outcome). When variables are highly correlated, their individual effects on the dependent variable become difficult to isolate. This results in unreliable coefficient estimates and inflated standard errors, making it challenging to assess the true impact of each variable. Multi-collinearity can inflate the R-squared value (goodness-of-fit) while making individual variable coefficients statistically insignificant. This creates a misleading picture where the model seems to fit well, but the contribution of individual variables is unclear. Models with multi-collinearity may perform well on the training data but struggle with generalizability. This is because the model relies on the specific relationships between the correlated variables, which may not hold for unseen data.

TABLE 12: TEST FOR MULTI-COLLINEARITY

Coefficients										
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B		Collinearity Statistics	
		B	Std. Error	Beta			Lower Bound	Upper Bound	Tolerance	VIF
	(Constant)	.902	.188		4.803	.000	.532	1.273		
	Quality of services	.122	.050	.162	2.450	.015	.024	.220	.937	1.067
	Technology adoption	.354	.075	.379	4.743	.000	.207	.502	.644	1.552
	Freight forwarding network	.152	.065	.184	3.430	.016	.022	.210	.943	1.547

	Economic factors	.093	.078	.092	1.186	.237	-.062	.248	.679	1.472
	Regulatory environment	.154	.062	.346	3.743	.000	.215	.511	.743	1.534
a. Dependent Variable: International Trade Operations										

Source, field data (2024) SPSS output

Variance Inflation Factor (VIF) is a statistical tool used in regression analysis to diagnose a condition called multi-collinearity. This occurs when there's a high degree of correlation between two or more independent variables in the model. Multi-collinearity can cause problems with interpreting the regression results. If Variance Inflation Factor (VIF) values greater than 5 (some suggest 10) indicates potential multi-collinearity. A higher VIF suggests the variable's variance is inflated by collinearity with other predictors. In addition, the result shown in tolerance was calculated using the collinearity diagnostics option in regression analysis. This option provides the Variance Inflation Factor (VIF), which is inversely related to tolerance.

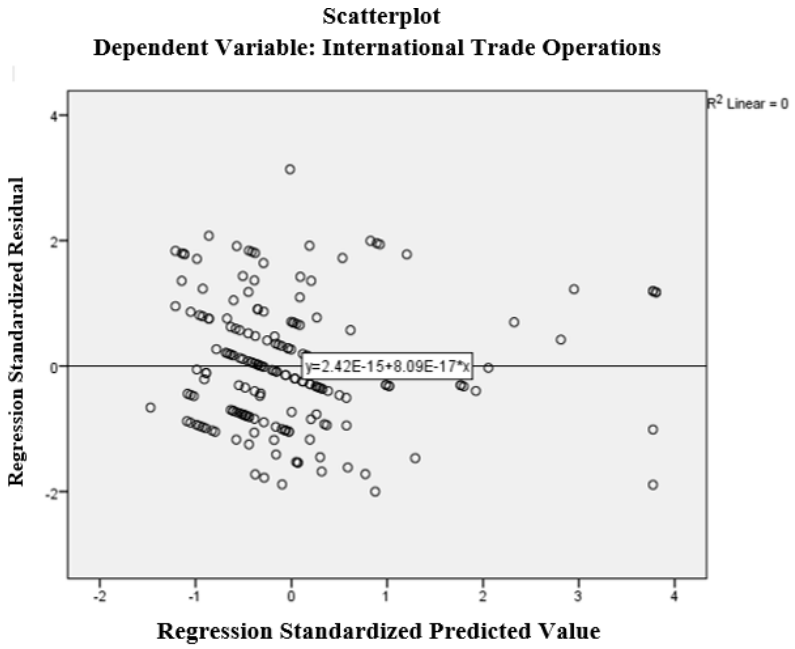
T = 1 / VIF, and if the result shows T > 10% it can be concluded that there is no multi-collinearity influence.

As the result shown in Table 11, indicating all the VIF values are less than 10, and tolerance values are greater than 10% respectively, indicating that there is no multi-collinearity influence between the explanatory variables.

4.6.6 Test for Heteroscedasticity

Based on the analysis of particularly linear regression, the researcher performs a "Test for Heteroscedasticity" to assess whether the variance of the error terms (residuals) is constant across all levels of the independent variable(s). Unequal variance, or heteroscedasticity, which can lead to misleading results. Heteroscedasticity inflates the standard errors of the estimated coefficients, making them less reliable. This can lead to underestimating the true significance of the independent variables in explaining the dependent variable. When variance is unequal, confidence intervals for the coefficients become unreliable, affecting our ability to accurately estimate the range of possible true values for the coefficients.

FIGURE 3: TEST FOR HETEROSCEDASTICITY



Based on the scatterplot output above, it appears that the spots are diffused and do not form a clear specific pattern, so it can be concluded that the regression model does not have a heteroscedasticity problem.

4.6.7 Analysis of Variance (ANOVA)

Analysis of variance was also done to establish the overall significance of the model. ANOVA also tells the overall effect of the four independent variables on factors affecting International Trade Operations in different organizations. Analysis of Variance (ANOVA) is a statistical test used to determine if there are significant differences between the means of multiple groups. It helps us understand if a factor (independent variables) truly affects an outcome variable (dependent variables). If rejection (p-value < significance level) this indicates a statistically significant difference between at least one group and the others. This is often the desired outcome, as it allows researchers to conclude that the factor likely has a genuine effect. If they fail to reject (p-value > significance level) this suggests the researcher lacks evidence to claim significant differences. It might necessitate further investigation with a larger sample size or exploring alternative factors that could explain the observed variations.

TABLE 13: ANALYSIS OF VARIANCE (ANOVA)

ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	77.372	3	4.160	80.215	.000
	Residual	37.661	183	.206		
	Total	113.115	186			

a. Predictors: (Constant), Quality of services, Technology adoption, Freight forwarding network, Economic factors, Regulatory environment

b. Dependent Variable: International Trade Operations

As depicted in Table 13, show that the ANOVA table at 95% confidence interval, a significant P-value of 0.00 which is below 0.05, and an F-value of 80.215 was recorded. This implies that using the model is better than simply guessing about factors affecting International Trade Operations. Therefore, there is a statistically significant difference in the factors affecting International Trade Operations due to predictors under the study. This implies the regression model is a suitable prediction for explaining factors affecting International Trade Operations in selected freight forwarders.

4.6.8 Model Summary

R-square- is a statistical measure that tells the proportion of the variance for a dependent variable that's explained by an independent variable or variables included in the regression model. R2- also explains to what extent the variance of one variable explains the variance of other variables. R-Squared value ranges from 0 to 1 and is commonly stated as a percentage from 0% to 100%. An R-square of 100% indicates that the dependent variable is completely explained by the independent variable of the model. 0% shows the model explains none of the variability of the response data around its mean.

TABLE 14: MODEL SUMMARY

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.827a	.684	.680	.31510	1.796

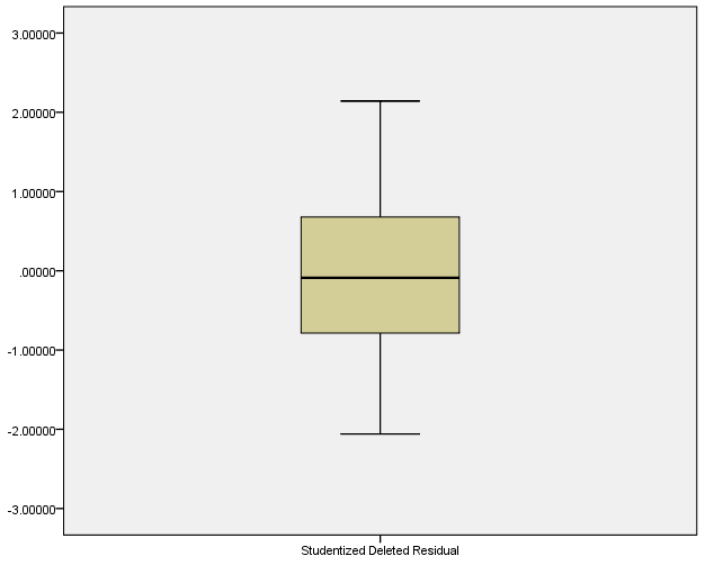
a. Predictors: (Constant), Quality of services, Technology adoption, Freight forwarding network, Economic factors, Regulatory environment
b. Dependent Variable: International Trade Operations

As a result in Table 14, 68% of the change in the factors affecting international trade operation could be attributed to the combined effect of the predictor variables. However, 32% of the variance is explained by other factors not covered in the study.

4.6.9 Test of Outliers

Statistical analysis often relies on the assumption of a normal distribution of the data. Outliers, data points significantly different from the main group, can distort results and lead to misleading conclusions. Testing for outliers helps the researcher identify these extreme values and assess their impact on the overall analysis. The best outcome of an outlier test depends on the specific research question. Ideally, the test reveals a minimal number of outliers, suggesting the data adheres to a normal distribution. However, the presence of a few outliers might be acceptable if they can be explained by specific factors or don't significantly impact the overall analysis.

FIGURE 4: A TEST OF OUTLIERS



If there are no circles or asterisks on either end of the box plot, this is an indication that no outliners are present. Therefore, before conducting regression analysis, all relevant tests of regression such as sample size requirement, multi-collinearity, outliners, normality, and heteroscedasticity are satisfied, and regression analysis can be tested.

4.7 Interpretation of Regression Result

Regression analysis helps the researcher to understand how changes in one variable (independent) affect another (dependent). By testing the interpretation of these results, we can confirm the validity of these relationships. This knowledge allows the researcher to predict future outcomes and make informed decisions.

The best result depends on the research question. However, in general, the ideal outcome involves coefficients for independent variables that should be statistically significant, indicating a true relationship with the dependent variable; a high R-squared value signifies the model explains a significant portion of the dependent variable's variation. By testing these aspects, the researcher will gain valuable insights into the data and make informed decisions based on reliable evidence.

TABLE 15: COEFFICIENTS OF REGRESSION ANALYSIS

Coefficients						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.901	.188		4.798	.000
	Quality of services	.225	.050	.288	2.501	.000
	Technology adoption	.360	.075	.256	4.814	.000
	Freight forwarding network	.213	.156	.158	1.075	.012
	Economic factors	.351	.076	.398	4.075	.000
	Regulatory environment	.084	.078	.281	3.425	.000
a. Dependent Variable: International Trade Operations						

Source, field data (2024) SPSS output

As illustrated in table 15 the coefficient of regression analysis indicates the independent variable with the highest beta value contributes the most to explaining the dependent variable's variance, which is controlled by all other variables in the model, as shown in the Beta column beneath standardized coefficients. Economic factors (0.398) followed by Quality of services (0.288), followed by Regulatory environment (0.281), followed by Technology adoption (0.256) are the most significant factors in the standardized beta coefficients for International trade operation and Freight forwarding network contributing to the least with a beta coefficient (0.158).

CHAPTER FIVE

5 SUMMARY OF FINDINGS, CONCLUSIONS, AND RECOMMENDATIONS

This chapter gives a summary of the findings, discussions of the findings, conclusions, recommendations, and suggestions for further study. It is entirely derived from the findings and results of this study in chapter four.

5.1 Summary of major findings

Freight forwarding has a significant impact on the efficiency and cost of international trade operations in Ethiopia. By providing comprehensive logistics solutions, including transportation, warehousing, customs clearance, and insurance, freight forwarders streamline the complex processes involved in moving goods across borders. Key findings on the effects of freight forwarding include:

Reduced costs; Freight forwarders can negotiate favorable rates with carriers, leading to lower transportation costs for businesses. Improved efficiency; by handling logistics processes, forwarders help businesses avoid delays and inefficiencies, ensuring timely delivery of goods. Risk mitigation; Freight forwarders can manage risks associated with international trade, such as damage, loss, and customs issues. Access to global markets; Forwarders have the expertise and networks to connect Ethiopian businesses with international markets.

The primary challenges were; lack of Infrastructure inefficient transportation infrastructure, particularly roads and ports, leads to delays, damage, and increased costs, Limited technology outdated technology hinders efficient tracking, communication, and documentation, causing inefficiencies and errors, regulatory barriers complex regulations and bureaucratic procedures create challenges for compliance and timely shipment, skill shortage a lack of qualified professionals in logistics and freight forwarding limits the industry's capacity and efficiency, high costs such as high freight rates, customs duties, and insurance premiums increase the overall cost of international trade for Ethiopian companies. This affects the International Trade results in several negative impacts on Ethiopian international trade in increased costs; higher logistics costs reduce profit margins and competitiveness, delayed shipments; inefficient operations lead to delays, affecting customer

satisfaction and market responsiveness, damage to goods; poor infrastructure and handling practices increase the risk of damage during transit, limited market access; high costs and logistical challenges restrict access to new markets and potential customers.

5.2 Conclusion

Freight forwarding has emerged as an indispensable component of contemporary international trade, significantly influencing its efficiency, cost-effectiveness, and overall success. This study has comprehensively examined the multifaceted role of freight forwarding in facilitating global commerce, highlighting its critical functions in transportation, documentation, customs clearance, risk management, and supply chain optimization.

The findings underscore the pivotal role of freight forwarders in streamlining the complex logistics processes involved in international trade. By consolidating shipments and negotiating favorable rates with carriers, forwarders contribute to reducing transportation costs and improving operational efficiency. Moreover, their expertise in navigating intricate customs regulations and documentation requirements ensures smooth and timely clearance of goods, minimizing delays and disruptions.

In conclusion, freight forwarding has proven to be a strategic asset for businesses engaged in international trade. By providing comprehensive logistics solutions, forwarders enable companies to focus on their core competencies while entrusting the complexities of global shipping and customs clearance to experienced professionals. As international trade continues to grow and evolve, the importance of freight forwarding services will only increase, making them a vital component of the global supply chain ecosystem.

5.3 Recommendation

The Ethiopian freight forwarding landscape, while rapidly evolving, is still grappling with significant challenges that delay the efficiency and competitiveness of local businesses. Based on the research, the following recommendations are presented to address these challenges:

- The government should prioritize the development and maintenance of a healthy road network, especially connecting major commercial centers and transportation centers.
- Invest in expanding the railway network to connect key regions and facilitate the seamless transportation of goods.

- The government and freight forwarders must upgrade and expand existing port facilities, and consider developing new ones to meet the increasing demand for maritime trade.
- The Customs clearance process in Ethiopia is often time-consuming and bureaucratic, leading to delays in the movement of goods. Therefore Freight forwarders need to improve customs procedures, reduce paperwork, and invest in technology to automate clearance processes.
- The regulatory environment for freight forwarding is subject to frequent changes, creating uncertainty and hindering business operations. Therefore Freight forwarders need to establish clear and stable regulations, and ensure that they are consistently enforced across the country.
- Freight forwarders need to work on the adoption of technology solutions, such as transportation management systems and customs clearance software, to improve efficiency and reduce costs.
- Freight forwarders need to build strong relationships with Customs Authorities to establish positive relationships with customs authorities that can facilitate smoother clearance procedures and reduce delays.
- Freight forwarders must keep up-to-date with the latest industry trends, regulations, and best practices that can help businesses adapt to changing market conditions and optimize their freight forwarding operations.
- Freight forwarders must promote education and training programs in logistics and freight forwarding.
- Freight forwarders need to explore ways to reduce costs, such as negotiating better rates with carriers and optimizing supply chains.

By addressing these challenges, Ethiopian companies can improve the efficiency and competitiveness of their freight forwarding operations, contributing to the overall economic development of the country.

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Appendix

Appendix I
Addis Ababa University
College of Business and Economics
School of Commerce- Department of LSCM

Dear Respondents,

Dear respondent, the present study is an endeavor to identify the effect of freight forwarding on international trade operations in the case of different selected organizations.

Below various statements related to freight forwarding and international trade operations are listed. The information provided by you will be used only for research (MA) and not for any commercial activity. Please spare a few minutes from your valuable schedule and share your true feelings. Confidentiality of the information provided will be ensured. I greatly appreciate your cooperation and time in completing this questionnaire. Your insights are valuable for this academic study. N. B. No need to write your name.

Thank you in advance for your cooperation!

Part I: Demographic Information

Instructions: Circle the letter that corresponds to your answer.

1. **Gender**

   A. Male B. Female

2. **Age**

   A. 20 – 30 years old B. 31 – 40 years old C. 41 – 50 years old D. Above 51

3. **Educational Background**

   A. High School qualified C. College diploma

   B. First degree D. Masters & above

4. **Working Experience**

   A. Below 1 years

   B. 1- 5 years

   C. 6 – 10 years

   D. 11 – 15 years

   E. 16 – 20 years

   F. Above 20 years

Part 2: Research Questions (Select one section at a time)

Instructions: Please rate your level of agreement with the following statements on a scale of 1 (Strongly Disagree), (Disagree), (Neutral), (Agree) to 5 (Strongly Agree). Put (√) on your selection.

- ✓ How does freight forwarding impact the overall efficiency and cost of international trade operations in Ethiopia?

SN	**Items**					
	Efficiency	5	4	3	2	1
1.	Freight forwarders effectively manage the documentation process for international trade.					
2.	Freight forwarders contribute to faster cargo clearance at customs.					
3.	The use of freight forwarders reduces overall lead time in the supply chain.					
4.	The use of freight forwarders improves the visibility of cargo movement.					
	Cost	5	4	3	2	1
5.	Freight forwarders offer competitive rates for freight forwarding services.					
6.	Freight forwarders provide cost-effective warehousing and storage solutions.					
7.	The use of freight forwarders helps minimize cargo damage and loss costs.					
	Overall Impact	5	4	3	2	1
8.	The use of freight forwarders improves the competitiveness of Ethiopian exporters.					
9.	Freight forwarders support the growth of small and medium-sized enterprises (SMEs) in international trade.					
10.	The use of freight forwarders improves the overall customer satisfaction of international traders.					
11.	Freight forwarders stay updated with the latest industry regulations and standards.					
12.	Freight forwarders have a strong understanding of the Ethiopian market and trade environment.					
13.	Overall, freight forwarders positively impact the efficiency and cost of international trade operations in Ethiopia.					

✓ What are the primary challenges that affect Ethiopian companies in managing freight forwarding activities in terms of Technology, Freight forwarding network, Economic, and Regulatory environment?

SN	**Items**					
	Operational Challenges	5	4	3	2	1
1.	Cargo damage during transportation is a frequent issue.					
2.	Customs clearance procedures are time-consuming and complex.					
3.	The Company experiences delays in cargo delivery due to inefficient port operations.					
4.	There is a lack of adequate warehousing and storage facilities.					
5.	The Company faces difficulties in tracking and tracing cargo shipments.					
6.	The company experiences frequent cargo theft and pilferage.					
7.	The company struggles with managing documentation and paperwork related to freight forwarding.					
	Economic Challenges	5	4	3	2	1
8.	High transportation costs negatively impact our profitability.					
9.	Fluctuations in exchange rates affect our freight forwarding operations.					
10.	The company faces financial challenges due to delayed payments from customers.					
11.	The company struggles with cash flow management due to freight forwarding activities.					
	Regulatory Challenges	5	4	3	2	1
12.	Complex and changing import/export regulations hinder our operations.					
13.	Customs inspections and procedures are often inconsistent.					
14.	Obtaining necessary permits and licenses for freight forwarding is time-consuming.					
	Technological Challenges	5	4	3	2	1
15.	The company faces challenges in integrating freight forwarding systems with our ERP.					
16.	The company struggles with data security and privacy issues in freight forwarding.					
17.	The adoption of digital platforms in the freight industry is slow.					
	Supply Chain Challenges	5	4	3	2	1
18.	The company experiences frequent disruptions in the global supply chain.					
19.	The company faces challenges in coordinating with multiple transportation modes.					
20.	The company struggles with managing inventory levels due to freight uncertainties.					

✓ What Freight forwarding network strategies can be implemented to enhance the performance of freight forwarding services in Ethiopia?

SN	Items					
	Customer Perspective	5	4	3	2	1
1.	Improving real-time tracking and visibility of shipments would enhance performance.					
2.	Offering competitive pricing is crucial for improving freight forwarding services.					
3.	Efficient customs clearance procedures are essential for customer satisfaction.					
4.	Reliable and timely delivery is a key factor in enhancing performance.					
5.	Effective communication with customers is vital for building trust.					
	Operational Efficiency	5	4	3	2	1
6.	Streamlining documentation processes can enhance operational efficiency.					
7.	Investing in advanced transportation management systems is crucial.					
8.	Optimizing warehouse and storage facilities improves performance.					
9.	Implementing efficient route planning and scheduling is essential.					
10.	Utilizing technology for freight consolidation can improve cost-effectiveness.					
11.	Effective risk management strategies contribute to overall performance.					
	Supply Chain Collaboration	5	4	3	2	1
12.	Strong partnerships with suppliers and carriers are essential for performance.					
13.	Effective communication and collaboration with stakeholders improve efficiency.					
14.	Collaborative problem-solving improves overall supply chain performance.					

Open-ended question

1. How does the cost-effectiveness of freight forwarding services affect trade volumes and trade balances between countries?

   _____

2. How can freight forwarders adopt sustainable practices to mitigate the environmental impact of international trade?

   _____

3. What are the security challenges associated with digitalization in freight forwarding and how can they be addressed