ST. MARY'S UNIVERSITY, SCHOOL OF GRADUATE STUDIES

DEPARTMENT OF MARKETING MANAGEMENT

THE EFFECTS OF LOGISTICS SERVICE DELIVERY ON LOGISTICS PERFORMANCE: THE CASE OF ETHIOPIAN SHIPPING AND LOGISTICS SERVICES ENTERPRISE

BY

YITASEB GETAMESAY

JUNE 2021

ADDIS ABABA

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DECLARATION

I, the undersigned, declare that this thesis "THE EFFECTS OF LOGISTICS SERVICE DELIVERY ON LOGISTICS PERFORMANCE: THE CASE OF ETHIOPIAN SHIPPING AND LOGISTICS SERVICES ENTERPRISE" is my original work, prepared under the guidance of Mesfin Workineh (Ph.D.). All sources of materials used for this thesis have been duly acknowledged. I further confirm that the thesis has not been submitted either in part or full to any other higher learning institution for the purpose of earning any degree.

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St, Mary's University, Addis Ababa	June 2021

ENDORSEMENT

This thesis has been submitted to St. Mary's University, School of Graduate Studies for examination with my approval as a University advisor.

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Advisor	Signature
St, Mary's University, Addis Ababa	June 2021

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ABBREVATION AND ACRONYMS

LPI -	Logistics Performance Index
ESLSE -	Ethiopian Shipping and Logistics Services Enterprise
REL -	Reliability
RES -	Responsiveness
ASU -	Assurance
EMP -	Empathy
TAN -	Tangibility
TEQ -	Technical Quality
IM -	Company Image
LOP -	Logistics Performance
SERVPERF -	Service Performance
SERVQUAL -	Service Quality
SQ -	Service Quality
VIF -	Variance Inflation Factor

Table of Contents

LIST OF TABLES

LIST OF FIGURES

ABSTRACT

Integrated logistics service has become a critical part of a national economy and a planned strategy to excel the logistics performance is a pre-requisite. The essence of logistics is recognized worldwide for which nations harness a great deal of concern for the sector. Logistics Performance Index (LPI) is a measure of the overall performance of the logistics sector by combining six elements and is used as a benchmarking tool prepared by the World Bank. Multinational companies are subtle to the figures and the reports made by the World Bank to deploy their investment at a certain country. Nations with excellent logistics performance index rank are highly benefited from the fruits of the sector and strive to keep the sustainability of the integrated logistics service provision. Despite its importance to a national economy, logistics had never been given the desired emphasis in Ethiopia. ESLSE is established to facilitate the import and export trade of the country and takes the leading spot in the determination of Ethiopia's LPI rank. The objective of this study was to assess the effect of logistics service on logistics performance of ESLSE. Previous studies measured the service quality from the functional dimension (reliability, responsiveness, assurance, empathy and tangibility) of the service quality. Yet, Gronroos suggests the technical and company image dimensions also have a crucial significance on the perceptions of customers. Based on this suggestion, the study incorporated these two dimensions with the five dimensions of the functional service quality aspects and measured the logistics service delivery performance. Purposive non-random sampling technique is implemented to select a sample of 323 respondents from a total population of 1665 importers who import goods for the purpose of merchandising and located in Addis Ababa. The data is collected through structured questionnaire. The respondents were approached by the data collectors at their convenience in offices and sales areas. Data was processed by using Statistical Package for Social Sciences (SPSS) version 20 and analyzed via Pearson-correlation analysis to test the correlation between the dependent and independent variables and regression analysis was made and estimation of the regression model was made using beta coefficients. It was concluded that there is a significant relation between them. The findings of the study revealed that reliability and company image were found to be least factors to affect the logistics performance.

Key words: *logistics, service delivery, logistics performance*

CHAPTER ONE

1. INTRODUCTION

1.1. Background of the Study

Logistics has continued to grow at a remarkable pace; countries tend to incorporate their natural resources with excelled logistics services so as to enhance their economic possession. The current prominence of logistics comes from differentiated orientations of its dimensions to a single, integrated function of its components.

The service industry is critical to a country's social and economic development. It has grown to become the largest sector of the economy in many nations as a result of rising urbanization, privatization, and increased demand for intermediate and final consumer services (Kotler and Armstrong, 2012). The logistics industry, as part of the service sector, plays an important role in economic development, promoting fast and efficient movement of capital goods in support of technological advancement (Ibboston, 2010).

However, absence of competency among in the logistics sector has created a bottleneck, decreasing the necessity to provide high-quality services and excel the service provision. ESLSE has a a monopoly power over the industry disallowing continuous reforms and organizational improvements by creating a stage of competency in order to survive and thrive in the market. In the ever-increasingly competitive logistics environment across the globe, logistics service quality has become a less of concern in Ethiopia. To thrive excellent service delivery and lay a big image foundation like Ethiopian Airlines does, it is necessary to influence improved logistics service quality by assuring customer satisfaction which will in turn assures development of organizational performance (Wicks, 2009).

The international Logistics Performance Index (LPI) is an overall measure of the efficiency of the logistics sector, combining data on six key performance indicators into a single aggregated measure. The six key indicators are: the efficiency of customs and border management clearance, the quality of trade and transport infrastructure, the ease of arranging competitively priced shipments, the competence and quality of logistics services—trucking, forwarding, and customs brokerage, the

ability to track and trace consignments and the frequency with which shipments reach consignees within scheduled or expected delivery times.

Ethiopian Airlines, Ethiopian Civil Aviation Authority, Ethiopian Airports Enterprise, Ethiopian Roads Authority, Ethiopian Maritime Transport and Logistics Service Enterprise, Maritime Affairs Authority, Federal Transport Authority, Ethiopian Railroad Corporation, Insurance Fund and Road Fund are the enterprises and government agencies that are accountable for integrating the logistics services and lead the supply chain in Ethiopia as authorized by the Ethiopian Ministry of Transportation, of these, the state owned development enterprise known for shipping, logistics and maritime service provider, the Ethiopian Shipping and Logistics Services Enterprise takes the leading spot in logistics service in Ethiopia.

1.2. Background of the Organization

Ethiopian Shipping and Logistics Services Enterprise is one of the largest names in Ethiopia recognized for its provision of logistics service across the globe, It is established under a Council of Ministers Regulation number 255/2012 dated on November 21, 2012 to provide effective efficient and economical multimodal door to door services which enhance sustainable economic growth and development of the country by merging four independently operating government owned and public enterprise previously known as The Ethiopian Shipping Lines (ESL), The Ethiopian Maritime and Transit Service (EMTS), The Dry Port Service Enterprise (DPSE), and Comet Transport Enterprise (CTE).

ESLSE is established to render coastal and international and internal water transport services, to render coastal freight forwarding Service, multimodal transport, and Shipping Agency, to provide the services of stevedoring, shore handling, dry port warehousing and other logistics services related with imported and export goods and to provide container terminal service;

1.3. Statement of the Problem

Ethiopian shipping and Logistics services Enterprise is a public owned organization engaged in freight forwarding, shipping, logistics and transportation service provision sector with a mission of supporting country's import and export trade. The enterprise is formed by merging former independent shipping and logistics service enterprise units namely Comet Transport Services, Ethiopian Maritime and Transit Services, Ethiopian Shipping Lines S.C and Dry Port Enterprise

under the Regulation by the Council of Ministers (Regulation No. 255/2011). The main reason for the formation was in a view to facilitate fast and timely delivery of logistics services all at once. The enterprise is responsible to the efficient and effective delivery of sea-transport and logistics services. The enterprise promises reliable and consistently excelled service responding to customers queries right on time equipped with well trained and skilled labor and maintained infrastructure.

Despite the fact that the enterprise promises excellent service delivery in the logistics service, in sea and land transport sectors, there are substantial complaints from customers. Lagging facility characterized by lack of skilled manpower, poor infrastructure facilitation, very high lead time for arrival of goods and unreliable tracking and tracing of goods after shipment (World Bank, 2019) are among the major characteristics of the enterprise. Lack of adequate information on locations of consignments, increased variability of customs clearance procedures, disintegrated activities of dry port management system, poor trade and transport infrastructures, inappropriate additional fees, constant delays in maritime transshipment are among the frequently raised complaints by customers.

According to World Bank's report, it will take 123 days in order to process bank permit and import goods to Ethiopia, the lead time for imported goods to be cleared from ports is 60days. Ethiopia is in the least position taking 60 days (giving it the highest number of days in the world) to complete export of goods through airport or port supply chain. In addition, the 2020 World Bank report shows that Ethiopia is ranked 138th in global logistics performance index (LPI) in 2018. This shows that the country's logistics performance is not only one of the poorly performed in the world but also it is declining.

The major government organs that constitute for betterment of the LPI are Ethiopian Customs Authority and ESLSE provided that the major role is played by ESLSE. Organizational performance of the ESLSE regulates the performance measure of logistics, facilitates coordinated integration among sectors and promotes mobilization of the logistics service to foreign direct investors and creates opportunity to economic development of the country.

There are several empirical studies undertaken on ESLSE supporting the above assertions. Addis G, (2017) in his study on the same enterprise revealed that the dimensions of logistics performance (logistics differentiation, logistics efficiency and logistics effectiveness) are poorly performed. Aklile M, (2017) undertaken a study in effectiveness of multimodal transport determinants of ESLSE and concluded that shortages of logistics infrastructures resulted in increased transit cost and time. Lack

of ICT usage at each level, lack of railway infrastructure, and lack of clear lows and regulations that support the involvement of privately-owned service providers (Tilahun L. and Mekonnen B, 2016). These studies revealed to measure the service delivery using the five dimensions of the service quality.

In addition to the five dimensions, Gronroos argues that there are other variables that can filter the service quality perception in three dimensions namely, functional quality, technical quality and company image. The functional dimension incorporates the five variables namely, reliability, responsiveness, assurance, empathy and tangibility. Previous studies in the case of ESLSE were undertaken to measure the service quality from these five dimensions. Yet, Gronroos (2001) suggests that technical quality and company image have a pivotal role towards the service quality. Absence of these two parameters in the empirical studies have failed to support the impacts of the variables on logistics performance and Gronroos argues that these variables can be used as a pillar to place excellent service quality.

G. Kang and J. James (2004) witnessed that technical quality and company image in addition to the functional quality aspect have significant effect on customer satisfaction on their study to measure the effect of service quality on customer satisfaction on mobile customers.

The purpose of this study is to investigate the effect of logistics service delivery on the logistics performance of the Ethiopian Shipping and Logistics Services Enterprise. This study can go a way more than helping customers of ESLSE by suggesting critical service deliverance problems to the enterprise and it will help importers to efficiently utilize their time and resources if the foreseen problems can be resolved.

1.4. Objectives of the Study

1.4.1. General Objective

The main objective of this study is to investigate the effect of logistics service delivery on logistics performance in the case of Ethiopian Shipping and Logistics Service Enterprise, Addis Ababa.

1.4.2. Specific Objectives

i. To examine the effect of service reliability on logistics performance.
ii. To investigate the effect of service responsiveness on logistics performance.
iii. To evaluate the effect of service empathy on logistics performance.

iv. To determine the effect of service assurance on logistics performance.
v. To test the effect of service tangibility on logistics performance.
vi. To examine the effect of technical quality aspect of logistics service on logistics performance.
vii. To evaluate the effect of company image on logistics performance.

1.5. Significance of the Study

The output of this research will contribute to betterment of the logistical practices of ESLSE by suggesting a means to efficiently and effectively utilize resources allotted and ensure enhanced organizational performance. It will induce creation of better relationship with foreign traders and creates a platform to invite foreign investors through FDI. By suggesting critical service deliverance problems to the enterprise, it will help importers to efficiently utilize their time and resources if the foreseen problems can be resolved.

It also enlightens policy makers in the enterprise to have a glance of what is missing in the total picture of the overall logistical practice and take necessary directions towards improving Ethiopia's rank in LPI. Moreover, it will be an initial input for those who wish to conduct further studies on this topic.

1.6. Scope of the Study

The scope of the study is delimited for sake of managing the overall process of the survey within the capacity of the student researcher. Hence, it has to be delimited geographically, conceptually and methodologically as necessary. The inherent limitations of non-probability sampling method include higher degree of complaints in that it is impossible to know how well the sample represents the population. To overcome such incident, more questionnaires were distributed so that it was plausible to represent the population.

Though there are a number of factors that affect the overall logistics performance, this study conceptually sought to evaluate the logistics performance only from service quality perspective in terms of functional, technical quality and company image dimensions. The customers of ESLSE include various types of organizations established for different purposes. For this study, importers of goods for business merchandizing through ESLSE were contacted to provide their responses.

Meanwhile, geographically limited to Addis Ababa, the capital city of Ethiopia, for the reason that they are located in different parts of the country and outside of Ethiopia. For this study, importers who are based in Addis Ababa were contacted to provide their responses.

1.7. Limitations of the Study

Although the study focuses on the relationship between logistics service and logistics performance, other mediating and moderating factors are ignored. These might put their adverse influences on the wholeness or generalizability of the output of the findings. Lack of dissemination of the enterprise to the society with regard to their respective integrity, social responsibilities, profitability and other important issues also limit the awareness of the end users. Thus, respondents might have limitation in understanding the overall operation or service delivery of the enterprise.

The other limitation of the study is the Covid-19 epidemic that regulates physical distancing of individuals and affect the movement the people, besides some respondents were not willing to fill out hardcopy of the structured questionnaire in relation to the disease. To overcome the problem, the researcher shared softcopies of the questionnaire by email to be filled out by respondents and collected a more relevant information on the subject under study.

1.8. Definition of Terms

To make a research work such as this comprehensive to even an average reader, it is every important to define some salient features involved in the theme. These salient terms are defined as follows:

Logistics: Council of Logistics management (1991) defined that logistics is 'part of the supply chain process that plans, implements and controls the efficient, effective forward and reverse flow and storage of goods, services and related information between the point of origin and the point of consumption in order to meet customers' requirements.

Service: is any activity or benefit that will be offered to another that does not essentially result in transfer of title.

Logistics Performance Index is an international benchmarking tool focusing specifically on measuring the trade and transport facilitation friendliness of a particular country, and in so doing, helping them to identify key barriers to, and opportunities for, improvement.

Transportation is a system of conveying people or goods from place to place

Quality is the standard of something as measured against other things of a similar type or the degree of excellence of something.

Infrastructure is the basic physical and organizational structures and facilities like buildings, roads, power supplies, telecom facilities and others which are needed for the operation of a society or an enterprise.

Traceability is the ability to trace the when and where a product is at a specific time.

Freight is defined as goods transported in bulk using truck, rail, ship, or other means of tranportation

Multimodal transport means the carriage of goods by at least two different modes of transport on the basis of the multimodal transport contract from place in one country at which the goods are taken in charge by the multimodal transport operator to the place designated for delivery situation in a different country.

Merchandising Business means a business activity involving exchange of products for a purpose of organizational profitability.

1.9. Organization of the Study

The study is comprised of five chapters. The first chapter is the introduction section which includes background of the study, statement of the problem, basic research questions and objectives of the study, significance of the study, scope of the study, limitations of the study and definition of terms. The second chapter dealt with review of related literatures. The third chapter incorporated a brief description of the research design and methodologies used. The fourth chapter encompassed data presentation, analysis, and interpretation. Finally, the summary, conclusions and recommendations are presented in the fifth chapter.

CHAPTER TWO

2. REVIEW OF THE RELATED LITERATURE

In this chapter the theoretical and empirical evidences obtained from different scholars are presented. The chapter covers concepts related with logistics services, company image, technical quality and logistics performance. The sources considered in this review includes various books, websites, journal articles, previous studies and other valid documents from international institutions related with logistics performance.

2.1. Theoretical Review

2.1.1. Concepts of Service

Physical distribution was mechanical and firm-oriented before 1970. Physical distribution attempted to create satisfaction by giving the product, time and location utility. Traditional methods of delivering customer support through big inventories and field warehouses have been called into question as a result of environmental changes. The focus moved to inventory stocking levels being kept to a minimum.

During this time, various definitions of customer service were utilized. In his (1971) book, Heskett outlined nine of the most prominent definitions. These definitions are more "supplier-oriented" than "customer-oriented" definitions, based on popularity. Heskett suggests that these definitions require greater measurement and control problems.

The NCPDM produced a study in 1976 that examined business operations and how they dealt with customer service. This ground-breaking study by LaLonde and Zinszer discovered three categories of customer service. Customer service was described as an activity, a performance level, and a management philosophy. The duties or functions of an organizational entity, such as the customer service department, would be included in an activity definition. Customer service was seen as a distinct role that was not integrated into the overall management philosophy.

The customer service level was defined as a performance level using a quantitative manner. "Deliver 99 percent of orders in 10 days," for example, is an example of this type of definition. Surprisingly, in many cases, the customer service standards set by the companies were and are far stricter than those set by the consumer's demands or desires.

Customer service is not a department-specific or readily measured management philosophy, but rather the mentality that everyone is involved in and accountable for customer satisfaction. Customer service, as described by LaLonde and Zinszer, is described as activities that occur at the customer-organization interface that enhance or facilitate the sale and use of the organization's products or services. As a result, customer service encompasses everything a manufacturer does for a customer throughout the process of getting a product from the factory to the customer.

Prior to the 1980s, customer service departments were "reactive" to consumer complaints. When a shipment was missing, a product was damaged, or a part was out of stock, customer service was contacted. The cost of tracking down and dealing with these problems was significant. The deregulation of the transportation industry resulted in one of the most dramatic and significant shifts in customer service thinking. Transport companies were obliged to compete for clients on the basis of both service and price.

Customer service was also viewed as a process rather than an activity. Customer service is a cost-effective method of bringing considerable value-added benefits to the supply chain. Customer support had evolved into a "proactive" role. Customer service, according to Blanding, is becoming a real management discipline focused with "customer retention."

Customer service in the 1970s and 1980s was reactive and firm, as we've seen. Customer-specific customer service measures were more difficult to sustain. In the late 1980s, the concept of customer service began to shift toward the creation of client value. In compared to accessible alternatives, customer value can be described as the value gained by the customer that justifies the sacrifice made to acquire, use, and dispose of a product/service. Customer value takes into account the customer's other options and includes both economic and non-economic costs when determining value.

Effectiveness, efficiency, and differentiation are the three primary ways that logistics delivers customer value for its customers. Effectiveness is a performance issue in which a company meets or exceeds the needs of its customers. The company must also supply the needed product or service in a timely and cost-effective manner. Logistics also allows the company to set itself apart from its competition. Various models were driven at different times in order to measure the effectiveness, efficiency and differentiations of service parameters.

2.1.1.1. Service Models

The idea of service quality as stated in literatures of service marketing on perceived quality, is defined as a consumer's judgement of an entity's overall performance or superiority (Zeithaml, 1987). Different scholars have developed several models in order to measure the service quality in relation to customers perception of the perceived quality. The most common models are stated here below.

2.1.1.1.1. SERVQUAL Model

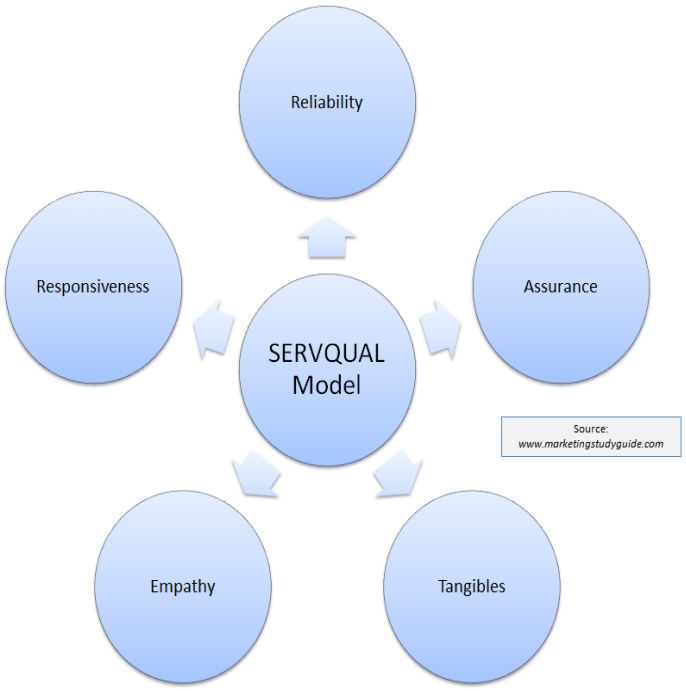
Many services marketing textbooks use the SERVQUAL model, which is typically used when addressing customer satisfaction and service quality. It was created in the mid-1980s by Zeithaml, Parasuraman, and Berry, three well-known academic academics in the subject of services marketing. The SERVQUAL concept was created with service companies and merchants in mind. In truth, while most businesses provide some level of customer service, only the service sectors are concerned with determining and measuring service quality. SERVQUAL, as a result, adopts a far broader view of service than simple customer service.

The distinctive properties of services were one of the driving forces behind the development of the SERVQUAL paradigm (as compared to physical products). Because of these distinct qualities, such as intangibility and heterogeneity, it is far more difficult for a company to objectively judge its level of quality (as opposed to a manufacturer who can inspect and test physical goods). The establishment of this model gave a formal methodology for service firms and merchants to examine the collection of characteristics that influence consumers' perceptions of a firm's overall service quality.

The SERVQUAL Model's first studies were conducted only for the services of a telecommunications, banking, and maintenance organization. Consumers and their judgments of the experienced service quality of these three organizations were surveyed in the previously described study.

The SERVQUAL model divides service quality into five key categories as shown in the figure below:

Figure 2.1 1Model of Servqual



Source: Zeithmal, et al. (1987)

In general, this methodology can be used to identify service flaws and remedy them. It's a so-called 'GAP Analysis' in that respect. It compares the service quality that was expected to the service quality that was received. Customers' perceptions are used to gauge the quality of the experience. It's a third-party assessment of consumer needs in connection to the level of service they received.

Despite its widespread use, the SERVQUAL instrument has been criticized (Asubonteng et al., 1996; Buttle, 1996). The use of difference scores, dimensionality, applicability, and the model's lack of validity, particularly in terms of the five primary variables' dependence or independence, have all been criticized (Babakus and Boller, 1992; Carman, 1990; Cronin and Taylor, 1992). In this section, the researcher has tried to illustrate the models used to measure service quality.

2.1.1.1.1.1. SERVPERF Model

The SERVPERF model includes five service dimensions: tangibles, reliability, responsiveness, assurance, and empathy, as well as two sets of 22 item statements for the importance and perception sections of the survey. The term "tangibles" refers to things that are physically apparent. It might be judged by the cleanliness of the restrooms, the availability of parking, the comfort of the waiting lounge, and the appearance of the workers. The ability to offer dependable service quickly and

accurately is referred to as reliability. It has to do with the accuracy of flight information, such as baggage location information and the availability of dependable officers.

Both SERVQUAL and SERVPERF's operationalizations relied on the conceptual definition that service quality is an attitude toward the service offered by a firm resulting from a comparison of expectations with performance (Parasuraman et al., 1985, 1988; Cronin and Taylor, 1992). However, SERVQUAL directly measures both expectations – and performance perceptions whereas SERVPERF only measures performance perceptions. SERVPERF uses only performance data because it assumes that respondents provide their ratings by automatically comparing performance perceptions with performance expectations. Thus, SERVPERF assumes that directly measuring performance expectations is unnecessary.

Responsiveness refers to a company's willingness to respond to a customer's wants or wants for assistance and quick service. Rapid airport access, as well as fast and fast security clearance, are all part of it. Assurance encompasses the employees' knowledge, courtesy, abilities, and trustworthiness, as well as the absence of danger, risk, or doubt. The final dimension, empathy, refers to the ease with which customers may form relationships, as well as good communication, personal attention, and an understanding of their needs. The availability of waiting time for check-in, immigration inspection, and reclaim service for each and every consumer demonstrates this.

$$SQ_i = \sum_{j=1}^{k} W_{ij} \cdot P_{ij} \ ,$$

where SQ_j is the service quality of item statement j, Wij is the weighting factor of item statement j to an individual i, and P_{ij} is perception of individual i with respect to the performance on item statement j. The weighting factors is the normalized importance score:

$$W_{ij} = \frac{I_{ij} - Min}{Max - Min},$$

where I_{ij} is the importance score obtained from the questionnaire, Min is the minimum score and Max is the maximum score of the importance score.It is a two-dimensional state space where the vertical axis described the importance of the selection attributes, while the horizontal axis described how well the service firm is performing the service.

Concentrate here, keep up the good job, low priority, and possibly overkill were the four quadrants of the IPA's two-dimensional state space. The first quadrant, i.e. focus here, in the north-west corner, had the traits that became the management's priority due to their high importance, but poor performance ratings. The second quadrant, keep up the excellent work, noted that the importance and performance of consumers are already high, and that management should retain them successfully. Poor priority, which is placed in the south-west quadrant, was assigned to attributes that were considered low in both importance and performance. The last is arguably overkill, as there were unneeded traits that management had to preserve due to their low importance but high-performance rating.

2.1.1.1.2. Gap Model

The service quality gap model (sometimes known as the "5 gaps model") is an essential framework for measuring customer satisfaction. A. Parasuraman, VA Zeitham, and LL Berry (1988) described five significant gaps that firms must address in order to achieve customer expectations of the customer experience in "A conceptual model of service quality and its implications for future study".

The GAP Model creates a roadmap for the total service delivery process and detects the gaps between the processes, ensuring that the entire model runs smoothly. This assist service providers in identifying inefficiencies in the service delivery process.

1. The gap between Customer Expectation and Management Perception
2. The gap between Service Quality Specification and Management Perception
3. The gap between Service Quality Specification and Service Delivery
4. The gap between Service Delivery and External Communication
5. The gap between the Expected Service and Experienced Service.

When management or a service provider fails to properly understand what the client wants or needs, the first gap develops. It can also be caused by a breakdown in communication between contact personnel and managers. A lack of market segmentation exists. It is caused by a lack of market research. This gap occurs when management or a service provider accurately understands the customer's needs but fails to define a performance standard. It could be due to ineffective service design, insufficient physical proof, or an inefficient new service development process.

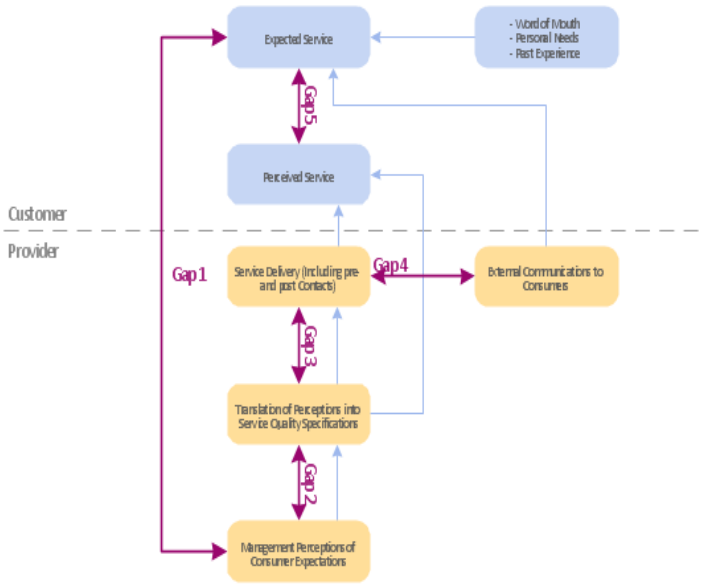
The second gap occurs when management or a service provider accurately understands the customer's needs but fails to define a performance standard. It could be due to ineffective service design, insufficient physical proof, or an inefficient new service development process.

The third gap may appear in settings where service personnel are already present. It can happen as a result of insufficient training, inability, or reluctance to achieve service requirements. It could occur as a result of ineffective evaluation and compensation systems. The fundamental reason of this chasm is ineffective recruitment.

This gap can be caused by a failure to match supply and demand. Empowerment, Perceived Control, and a structure are also lacking. A restaurant, for example, may have highly stringent culinary standards presented, but the restaurant personnel may not be provided sufficient training on how to fulfill these standards.The remarks made by company spokespeople and marketing have a significant impact on consumer expectations. The fourth gap occurs when these presumed expectations aren't met at the moment of service delivery.

When a customer misunderstands the service quality, the fifth gap develops. For example, a manager may repeatedly visit a customer to guarantee quality control and satisfaction, but the customer may interpret this as a sign that something is off or that the company staff is providing poor service.

Figure 2.2 The Gap Model



Source: Parasurman, et al. (1988).

2.1.1.1.3. Gronroos' Model

Research comparing the predictive validity of SERVQUAL with SERVPERF has been based on assessing which of the two measures is a better predictor of organizational service quality. organizational service quality has been used as the criterion because it is a global representation of the quality of the service offered by an organization (Cronin and Taylor, 1992, 1994; Jain and Gupta, 2004; Kettinger and Lee, 1997; Quester and Romaniuk, 1997). In their comparisons of SERVQUAL with SERVPERF, Cronin and Taylor (1992) built their argument for the superiority of SERVPERF over SERVQUAL by empirically showing that SERVPERF is a better predictor of organizational service quality than SERVQUAL. Also, Parasuraman et al. (1988) assessed the construct validity of SERVQUAL by evaluating whether the scale was an adequate predictor of OSQ. In view of this, the predictive validity of SERVQUAL and SERVPERF is assessed by meta-analyzing extant empirical research on the strength of the relationship between each scale and organizational service quality.

The American perspective of service quality is based primarily on Parasuraman et al.'s (1985, 1988) proposition that service quality may be evaluated based on the functional quality dimension, characterized by five components. Yet, this perspective does not account for additional dimensions of service quality. A more complete representation of service quality, based on the European perspective (Gronroos, 1982, 1990; Lehtinen and Lehtinen, 1982), should include three dimensions, technical, functional, and image. My study seeks to extend the understanding of service quality by assessing a three-dimensional model that includes technical quality, functional quality, and image, based on Gronroos' (1982, 1990) model.

Starting with the proposition that service quality is multidimensional, it is possible to develop a framework to illustrate the structure of service quality. Developing such a framework involves identifying the dimensions of service quality (technical and functional), and the component thought to make up each dimension. Marketing scholars have yet to identify attributes (or components) that define the technical quality dimension, although it is widely accepted that technical quality significantly affects customers' perceptions of service quality (Gronroos, 1982, 1990; Rust and Oliver, 1994).

Attempts to measure technical quality have generally involved the use of qualitative methods (Brady and Cronin, 2001; Powpaka, 1996; Richard and Allaway, 1993). Brady and Cronin (2001) administered open-ended surveys that asked respondents to complete a questionnaire about the specific attributes they perceived regarding service experiences. Powpaka (1996) and Richard and Allaway (1993) employed in-depth interviews to discover relevant determinants of technical quality. The various studies have each used different items to measure technical quality. The findings to date suggest that there is no underlying latent variable associated with a technical quality dimension. The lack of attention to technical quality requires that researchers develop their own measures to assess the dimension.

Several authors have utilized the SERVQUAL instrument to measure the functional quality dimension (Powpaka, 1996; Richard and Allaway, 1993). Brady and Cronin (2001, p. 36) suggested that the SERVQUAL model uses the terms that describe one or more determinants of a "quality service encounter". That is, they suggested that the instrument may be used to assess the service delivery process which happens during the encounter between a service provider and customers, in order to shed some light on our understanding of functional quality. Based on the preceding discussion in figure 2.1, a model structure of service quality and the relationships among the dimensions are proposed.

Finally, the model suggests that service quality leads to customer satisfaction. There is theoretical support for a multidimensional, multi-level model of service quality (Carman, 1990; Dabholkar et al., 1996; McDougall and Levesque, 1994), but little effort has been taken to conceptualize and empirically test such a structure. Research on service quality and its relationship to customer satisfaction has been broadly conducted in the literature (Oliver, 1993; Taylor and Baker, 1994), but the role of image in the perception of service quality has received no attention from academicians. The Gronroos model proposes that service quality consists of technical and functional dimensions, and that a service organization's image functions as a filter in the perception of service quality. The model also proposes that there are direct relationships between service quality perception and the technical and functional quality dimensions, in addition to the indirect effects of technical and functional quality on service quality perception. Due to these, the study employed the model suggested by Gronroos (2001) to investigate the logistics service delivery on logistics performance.

2.1.1.2. Logistic service

It is believed that trade originated with human communication in prehistoric times. The notion of logistics takes us back into the time of prehistoric era at which the transition of the humankind from hunting and gathering to production of agricultural products took place and the human being started to settle in one place. This transition brought the agricultural revolution that is characterized by domestication of plants and animals.

Human being started production of surplus agricultural products, the Asians were believed to produce rice, whereas, people in other places produced barley, wheat, and even cattle. What one can have in excess in one place forces to provide the left over to another place in exchange for what they hadn't possess in seek of variety. The trend continued and forced to the essence of bartering. The process of barter brought a large crowd together, new ideas started to emerge, precious artefacts brought a new rhythm for the community. The situation forced to the need for trade routes.

The ancient Mesopotamians are believed to first produce agricultural products (Y.N. Harari, 2014). The notion of trade routes brought the human trade operation from selling agricultural products and small household goods from near the local market to circumnavigating in coastal areas which prevailed the emergence of long-distance trade. The Silk Road is a major witness to the event which was a network of trade routes that connected the east and west and became a center for economic, political, cultural and religious interactions between the regions from the 2nd century BCE to the 18th century (Xinru, 2010). Yuval Harari explained such trade networks demanded a strong army to secure the trade activities from robbery and burglary. The situation then contributed for the emergence of empires. Empires have played a decisive role in amalgamating many small cultures to fewer big cultures (Y.N. Harari, 2014). Ideas, people, goods, technology spread more easily within the borders of an empire than in politically fragmented regions.

The ancient Romans built 80,000 km of hard-surfaced highway which is an outstanding transportation network of the ancient Mediterranean world, extending from Britain to Tigris-Euphrates river system and from the Danube River to Spain and the northern Africa (C. Beckwith, 2009). Such trade relationship incorporated exchange of commodities from one area to the other and facilitated to modern barter.

An anonymous author wrote a book titled 'The Periplus of the Erythraean Sea' that described the existence of trading opportunities from Roman Egyptian ports along the coast of Red Sea, and along

the Horn of Africa. The Erythraean Sea is known to be the present Indian Ocean that was named by the people of Habash or Abyssinians who dominated it (Fernando A. 1988). Commercial activity in ancient Ethiopia was characterized by exchange of precious incense, gold, ebony, and other valuable items. Ethiopia had trade relations with Arabia, Indians, Rome and other strong governments that existed historically (Helina, 2014) which owed much to famous trade winds in the area and facilitated to commercial sailings with the rest of the world.

The Aksumite realm which had its own port at Adulis, near present day Massawa, according to Periplus of the Erythraean Sea, traded widely with Egypt, Arabia, Persia, and India and exported largely of Ivory, rhinoceros, tortoise shell, and obsidian stone and imported raw metal, luxury goods, wine and other materials as cited by (Helina, 2014).

Currently, the global transportation system has evolved at an alarming scale by introducing various land, air and water transportation means including functions, such as unimodal, intermodal, bimodal and multimodal transport. In most part of the world, to alleviate the logistics problems, international trade has started to compare the performance of a country among others so as to oversee the advantages related with capital investment opportunities.

Because of ease of world economic integration (globalization) and turbulent environment, organizations realized the need to look into new paradigm of operation structure to go beyond their organization's boundary and work with and manage other autonomous organizations in a cooperative fashion or a Supply Chain Management Approach.

2.1.1.2.1. Dimensions of Logistic Service

While numerous aspects are recognized to influence service quality (Gronroos, 1982, 1990; Parasuraman et al., 1985), there is no consensus on the nature or content of the dimensions (Brady and Cronin, 2001). A review of service quality research to date, however, clearly demonstrates that European scholars have had a significant impact on the study of service quality characteristics. That is to say, European academics have sparked current debates on the characteristics of service quality. Service quality was described by Lehtinen and Lehtinen (1982) in terms of physical quality, interactive quality, and corporate (image) quality.

The tangible characteristics of the service incorporates a two-way flow that happens between the consumer and the service provider, or his or her agent which includes both automated and animated

exchanges, and is referred to as interactive quality. The picture that present and potential consumers, as well as other publics, have of a service provider is referred to as corporate quality. They also claim that, compared to the other two quality characteristics, corporate quality has remained more consistent through time.

Gronroos (1982) identified two service quality dimensions, the technical aspect ("what" service is provided), and the functional aspect ("how" the service is provided), with the suggestion that the "perceived service quality model" replace the product features of a physical product in the consumption of services. The technical or outcome quality of the process is how the client perceives what he or she obtains as the result of the process in which the resources are utilised. But, perhaps more crucially, he or she recognizes how the process works, i.e. the functional or process quality dimension.

The "what" (or technical quality) of some services may be difficult to assess. For example, in health care, a patient's (customer's) ability to judge the technical competency of service providers, as well as the immediate consequences of treatments, may be challenging. Consumers rely on additional quality aspects connected with the process (the "how") of health care delivery since they lack the expertise to assess technical quality. Consumers evaluating health care services are inclined to look for qualities like dependability and empathy.

In order to determine each factor's potential impact on the logistics service sector, this study considers the three dimensions of service quality (functional, technical and company image) that have an impact on logistics performance. These dimensions are made up of the SERVQUAL model's five dimensions (functional aspect) plus two additional aspects as recommended by Gronroos 2001, namely the technical and image aspects.

2.1.1.2.1.1. Functional

The five SERVQUAL parameters were tweaked and put to work as a practical quality indicator. The instrument's developers are open to modifying the instrument for different service scenarios (Parasuraman et al., 1994). Only perceptions of functional quality, not expectations, were measured, as suggested by Parasuraman et al. (1994), because the measurements were used to analyze the influence of functional quality on other dimensions. These parameters are:

a. Reliability

According to Parasuraman et al., Parasuraman et al., and Parasuraman et al., reliability means that an organization provides a service accurately the first time. Furthermore, it demonstrates that businesses attempt to keep their commitments and pay attention to the outcomes. The SERVQUAL service quality model classifies reliability as the first dimension. According to Lam's research, reliability is the most important dimension in the service quality model.

b. Assurance

Employees' civility and knowledge, as well as their ability to impart confidence and trust to consumers, have been termed as assurance. Researchers have differing views on how assurance should be ranked among service quality dimensions. According to Gronroos, assurance is ranked first, but the author of rated it fourth. Assurance entails informing and listening to clients in their local language, regardless of their educational level, age, or nationality. According to Parasuraman et al., assurance refers to employees' attitudes and behavior, as well as the staff's capacity to deliver friendly, discreet, courteous, and competent service.

c. Responsiveness

According to Parasuraman et al., willing employees' responsiveness includes telling consumers when things will be done, providing them undivided attention, marketing services, and replying to their demands. SERVQUAL 1994 placed responsiveness as the third dimension.

d. Empathy

Customers must believe that the entity delivering services prioritizes them. Caring, paying personal attention, and giving services to consumers are all examples of empathy. Empathy is defined as the ability to transmit the feeling that the consumer is unique and special. Quantitative research that have established service quality model aspects have employed security, credibility, and access to quantify empathy, according to Parasuraman et al.

e. Tangibility

Physical facilities are defined by Parasuraman et al., Parasuraman et al., and Parasuraman et al (equipment, personnel, and communications materials). Customers will judge quality based on the physical appearance of the service. The actual buildings, instruments, and machines needed to supply the service, as well as representations of the services, such as statements, cards (debit and credit),

transaction speed, and efficiency, are all considered tangibles. Several advantages are covered in tangibles, including external appearance, bank counters, overdraft facilities, opening hours, and transaction speed and efficiency. According to Parasuraman et al., tangibles are just as important as empathy. The authors suggested that the empathy component should include opening hours of operations, and that the reliability component should include overdraft privileges. Sharmin et al. regard tangibles to be a unique factor, demonstrating cultural continuity.

2.1.1.2.1.2. Technical

The Technical Quality Perspective is another widely acknowledged concept of service quality (Arora and Stoner, 1996). Technical quality refers to what is delivered, whereas functional quality refers to how it is provided, as defined by Gronroos (1983). The quality and effectiveness of diagnostics and medical procedures in a hospital, the effectiveness of a car repair, or the cleanliness of a hotel room are all examples of technical quality.

Although not as widely used or tested as the SERVQUAL model, the technical quality model has garnered some study and empirical attention in recent years. When it comes to measuring service quality in the field of architectural design, Baker and Lamb (1993) suggest that customers tend to rely on functional-based dimensions of service quality for evaluative purposes because they may lack the knowledge and/or skill to evaluate more technical-based dimensions.

Similarly, Higgins and Ferguson (1991) found that, while clients of an accountancy service rated both functional and technical aspects of service quality, the functional dimensions appeared to be more important. In the example of pizza delivery, however, Richard and Allaway (1993) discovered that combined technical and functional dimensions predicted greater variation in customer decision behavior than functional measurements alone, owing to the technical dimension's ease of evaluation.

2.1.1.2.1.3. Company Image

Until recently, the majority of brand research focused on consumer goods settings and centered on understanding the impact of brand recognition and image (Keller, 1993). However, there is a growing body of branding research that corresponds with the Service Dominant Logic (Vargo and Lusch, 2004) and focuses on the value-adding processes that contribute to the creation of customer experiences (Berry, 2000, de Chernatony and Segal-Horn, 2003).

In this context, the brand serves a broader purpose, interacting not just with end customers but also with the company, its employees, and a network of stakeholders. This larger viewpoint of branding is referred to as the "service brand" in research articles (e.g., Padgett and Allen, 1997, Dall'Olmo Riley and de Chernatony, 2000) and text books (e.g., Kasper et al., 2006).

It's crucial to understand that "service brand" is not synonymous with "service branding." Rather, it is defined as “where the service-centered dominant logic constitutes a reoriented philosophy that is applicable to all marketing offerings, including those that include tangible output (goods) and the process of service provision” by Vargo and Lusch (2004, p. 2). As a result, the service brand concept is integrative, with "service" superseding "goods" and/or "services" branding (Brodie et al., 2006).

Berry (2000)'s ground-breaking research, which is based on his personal experiences with labor-intensive service firms, provides initial insight into how brands play a bigger role. While Berry's model acknowledges that customer awareness of the company's displayed brand has an impact on brand equity, he believes that the brand's "meaning" that customers get from their service experiences is more essential. As a result, Berry (2000, p.128) claims that "the company" rather than "the product" becomes the key brand. This means that the customers' interactions with the company and the personnel who supply the service are the most important determinants of brand.

2.1.2. Logistics performance

Logistics research might be characterized as an orderly and target look for, and investigation of, data applicable to the identification and arrangement of any issue in the field of Logistics. A lot of Logistics research is directed around a reason that a relationship exists between a specific strategy, for example, Logistics service provision, and Logistics performance (or effectiveness). Unfortunately, drawing inferences from the work that has been done is disappointing as a result of the extraordinary assortment of ways by which performance has been characterized in different literatures.

The meaning of performance is a test for specialists in any field of the business since associations have numerous and much of the time clashing objectives. Some characterize objectives as profit maximization, others may pick objectives, for example, customer service, or sales volume maximization. It is additionally difficult to choose standards to foster satisfactory measures for the picked definition.

The estimation of Logistics performance incorporates a wide scope of preparation and control estimations identified with the organization's logistics management. Generally remembered for this sort of performance estimations are distinctive productivity measures, customer service levels, lead-times, turnover-rates, and so on. In addition, financial measures like cost accounting, cost determination, budget planning, standard costing, etc are considered.

Making inventory control models, route scheduling and other quantitative methods for numerical analysis of programs are not the primary purposes when measuring performance. In any case, it is important to sort out planning and controlling performance measures to represent various parts of the Logistics activities, deal with the direct flow of materials, set goals and control fulfilment of the pre-set goals.

We can see that the motivation behind measuring varies and there are likewise various types of challenges that arise in the process. Broad issues such as, measures depicted that best represent the practical aspects, computation of viable numerical information, possibility of conceiving the right data and the recording of the associated costs, can be regarded as measurable and quantifiable.

The AT Kearney report center around efficiency and only the Dutch investigation by Torremans covers the overall logistics performance. Models which should clarify relations between significant factors, for example, the efficiency framework (showing inputs and outputs on department level), the ROI tree (aggregated financial relations), the pyramid model (grouping the utilization of ratios and indices as the organization's order) and the logistics process-chain model (outlining the planning and control measures).

In production, buying, distribution and other activities the use of significant key indices and ratios can be classified in financial figures, turnover ratios, productivity, lead-times, volumes, quality control rates and customer service. The development of logistics measurement has followed two approaches; the first one is the "architect's approach" which focuses on measuring physical quantities, and the "economist's approach" that focuses on measuring monetary units for financial control. This has brought about a struggle to overcome any issues between those traditional measuring techniques. Furthermore, it is a main reason for the logistics performance measures.

The "measurement gap" is regularly found at the middle level of managerial hierarchy, where financial ratios are being used to convey results "upwards" and physical quantities "downwards" to the operational level. Much of the problems are related with measuring logistics performance lie in

the "measurement gap" between the traditional financial measurement and designed measurement of physical quantities.

This is a problem observed in the middle level management a lot. The financial measures are basically the concerns for controlling the company's activities at top level management, while the physical measures are being used at the operational level for controlling the physical movement of the material.

2.1.2.1. Global Logistics Performance Competitiveness

Logistics has been increasingly playing a pivotal role in international trade relations. Several studies have shown logistics to be positively correlated to international trade through different analytical approaches. Some studies link logistical performance fluctuation with international trade volume changes, (Beysenbav, 2018, Gani, 2017) showing correlation between key logistical indicators and world trade. Other works have included analysis of product costs and logistics performance, showing that transport costs and distance between countries majorly contribute towards trade friction (Yip, 2012) and increase total landed costs (Hausman, Lee & Subramanian, 2012). Transportation and logistics processes are also constantly adapting and changing, which means that, due to their interdependence with international trade, changes in the former necessarily might affect the latter in the future and vice versa (Dusko & Bozica, 2016).

The need for global economic competitiveness and competitive market positions through global integration for countries has been recognized by the global community through the creation of benchmarking tools for measuring the efficiency of the infrastructure, technological advancements, speed of movement of items from one place to another.

The Market Potential Index (MPI) helps companies rank emerging markets on eight dimensions that includes market size, intensity and growth rates, commercial infrastructure, economic freedom and prevailing economic and political risks of the country, the dimensions are then combined to create an overall market potential index (Hanson, 2005). The Foreign Direct Investment (FDI) Confidence index is an annual survey which tracks the impact of likely political, economic, and regulatory changes on the foreign direct investment intentions and preferences of CEOs, CFOs, and other top executives of Global companies (Sbia, R., Shahbaz, M., & Hamdi, H., 2014) and other indicators.

2.1.2.2. Logistics Performance Index

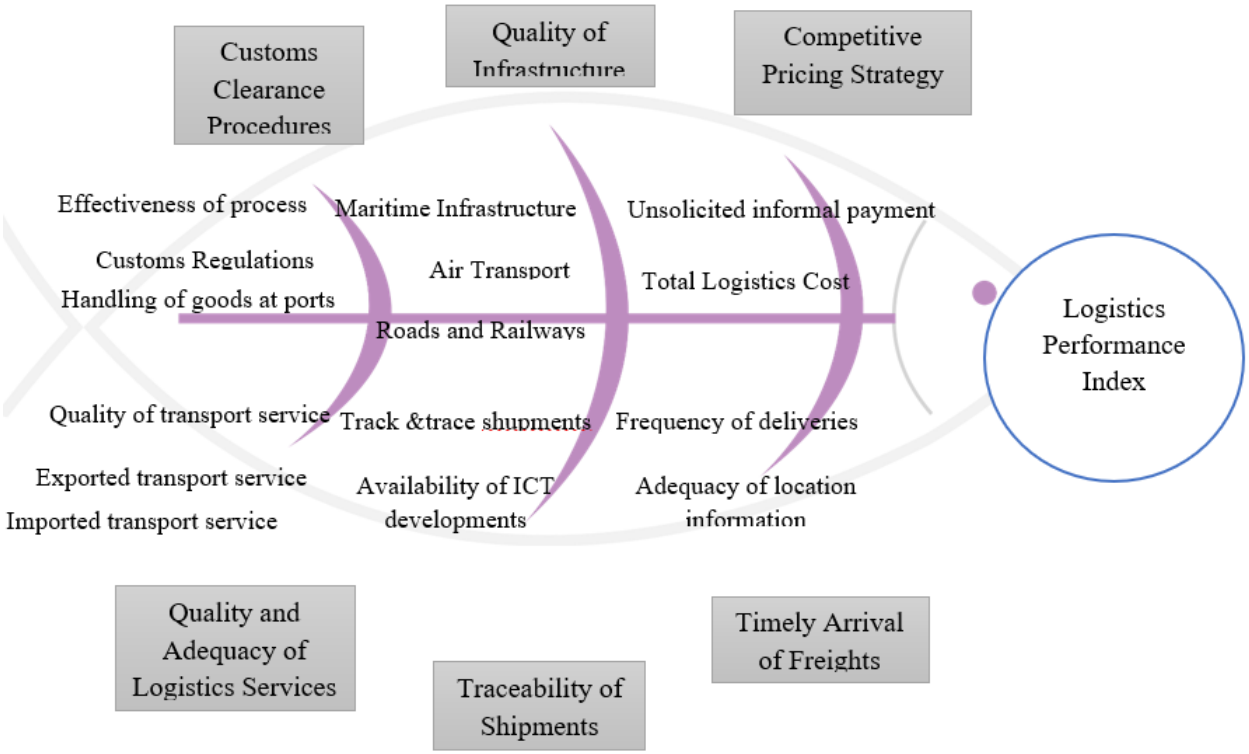
In late 2013, after more than 10 years of negotiation, the World Trade Organization (WTO) approved the Agreement on Trade Facilitation, providing crucial guidance on trade policies. This Ministerial Declaration deals with three key issues: trade facilitation, agriculture, and commercial impetus to help developing countries mitigate existing differences. Specifically, it contains provisions to speed up and improve the efficiency of customs procedures and border management (Sanz 2014). However, as outlined by Arvis et al. (2014), it introduces only minimum common standards, and in no way guarantees success. Only if countries are truly prepared to implement the advances that commercial globalization requires, can they benefit from the advantages of improved logistics performance. Hence, a suitable quantitative instrument is clearly needed in order to measure and compare the role of logistics in different parts of the world.

The Logistics Performance Index (LPI) was established with a view to bridging this gap. Its main objective is to measure the efficiency of logistics supply chains based on survey feedback from export companies. The LPI was first published in 2007 and led to a global debate on the importance of logistics in world economic growth.

At the same time it revealed the need to implement concrete policies to improve future performance. By comparing the results obtained by the LPI for the four years analysed, the enormous value of the trade facilitation policies (i.e. the international distribution of production) can be appreciated. This index and its components can help countries (governments and corporations) to get to know their business partners more closely and anticipate any possible adjustments that could harm their competitiveness.

The proposed objective is to measure countries´ logistics performance. Therefore, the aim of this paper is to analyze the effect of logistics services on the overall logistics performance of ESLSE based on Gronroos' service quality model considering the six dimensions of the LPI. The dimensions of the LPI is depicted using the Fishbone diagram in the figure below.

Figure 2.3 Dimensions of LPI in a Fishbone diagram



Source: World Bank LPI, (2018)

The World Bank LPI report shows that there are six dimensions that are used to measure the LPI of a certain country, from this we can infer that these dimensions are effects to the overall value of the performance.

a. Customs Clearance Procedure
b. Quality of Infrastructure

In determining the quality of infrastructure related to transport, it was decided to review the effectiveness of individual modes of transport and then aggregate them into one determining factor. Infrastructure development is essential for assuring basic connectivity and access to gateways. Ethiopia is surrounded by countries which are located nearshore namely Sudan, Eritrea, Somaliland and Djibouti. However, inland connections are relatively underdeveloped due several reasons. Ethiopia's main trade route currently is the port of Djibouti which has impacted its transport infrastructure reasonably underdeveloped road and rail infrastructure. The improvement in the infrastructure score also depends on the successful projects and strategic actions taken to increase the competitiveness in transport infrastructure and to promote private sector participation in infrastructure development projects.

c. Pricing Strategy

The ease of arranging shipments is another important factor that will contribute to a highest level of improvement in ILPI. The macroeconomic factors generally make services more expensive and may make it hard to arrange low priced shipments (Arvis *et al.* 2014)] in high income countries. The numbers illustrate that Ethiopia has shipping charges as high as the high-income economies despite being a low-income country which places it at a disadvantage compared to its regional competitors, particularly over land supply chains.

Outside of the logistics system itself, high energy costs represent the single greatest obstacle for road transport and trade network. Particularly for long distance destinations, diesel fuel accounts for over 60% of total freight costs. Given high domestic energy costs, companies are seeking low cost practices such as using fuel-efficient trucks or intermodal transport.

d. Logistics Service Quality and Adequacy

The quality of logistics services will be assessed by the LPI score for this sub index (Qlpi) and the share of transport service in overall service exports (TS), both of which will have a weight of 0.5 in Q. Transport services as a share of service exports are, according to the World Bank, all transport services performed by residents of one economy for those of another and involving the movement of freight, related support, and auxiliary services, and excluding freight insurance, goods procured in ports by nonresident carriers, maintenance and repairs on transport equipment and repairs of railway facilities, harbors, and airfield facilities.

In the framework of this study, we must assume that the higher the quality of exported services, the more demand there is for it and, consequently, the higher the volume of exported transport services. The only consistent survey of logistics service quality is the LPI sub index, so there is no opportunity to calculate the interdependence of exported transport service and logistics service quality (Bonett & Wright, 2000).

e. Traceability of Shipments

The ability to track and trace cargo will be assessed through the Information and Communication Technology Development Index (IDI) – an indicator that characterizes the achievements of countries in the world in terms of information and communication technology (ICT) development (ITU, 2018).

This combined indicator is calculated and published by the International Telecommunication Union. The score for this indicator will have a weight of 0.1 in the ILPI.

f. Timely Arrival of Freights

The assessment of the frequency with which deliveries reach the consignee during the planned or expected time or the ease of arranging shipments cannot be determined by quantitative methods or statistical analysis. These factors, according to the authors, cannot be calculated from statistical or other data, since, in the first case, this is a qualitative characterization, which can only be determined by interviewing active logistics participants, and in the second case – a lack of statistical data, as well as the complexity of creating and introducing a unified system for assessing these aspects predetermine the use of the results of a survey of active logistics participants.

The LPI provides clear guidelines for benchmarking of national logistics performance; a comparison of the results with the different methods will be performed by analyzing to what extent there exists a positive association between all the methods certainly scant with the exception of Markovits-Somogyi and Bokor (2014).

The most important work demonstrating the comparative situation of the world logistics sector among countries is the Logistics Performance Index (LPI). The questionnaire in LPI evaluates the participants' performances in the field of logistics, such as the customs processes of their own countries and of the countries where they conduct carrying, their service quality and their infrastructure, efficiency of the clearance and title transfer of asset to consignees, the prices charged associated with this activities and others.

The LPI draws on surveys of logistics professionals who answer questions about their experiences in different countries. In this way it seeks to capture the day-to-day reality facing the private sector much more accurately. Moreover, the Global Competitiveness Index published by the World Economic Forum measures the ability of countries to provide high levels of prosperity to their citizens based on 12 pillars, and therefore only in the area of quality of transport infrastructure could it be considered comparable with one of the LPI components. Generally, LPI plays a pivotal role in providing numerical information related with economic pattern of countries in terms of the specified variables and justify prevailing opportunities for investors.

2.1.2.3. The Relation Between Logistic Service and Logistics Performance

In the logistics sector, the field of service response logistics has only just begun to acquire traction. While the topic was formally introduced to the Council of Logistics Management's membership at its annual meeting in 1991, it is worthwhile to learn more about its origins and history. The University of Tennessee was responsible for the initial conceptual work. Students have been exposed to the economics of service companies and how they respond to client demand since 1985. The core idea was that logistics was the study of how these companies responded to specific client needs.

Over the last 30 years, business logistics has emerged around the idea that a product must be physically stored or transported from one location to another. Logistics and transportation contributed value to the product by allowing it to be used at any time and in any location. The physical parts of the process were the focus of early definitions of logistics, as was the original name of the professional organization (National Council of Physical Distribution Management).

Service response logistics, rather of focusing on a product, focuses on delivering customer-desired benefits. This benefit could be in the form of a pre-planned and pre-made standardized product. This is usually the case with packaged goods, where a standard off-the-shelf product suffices to meet the purchasers' requirements.

When a regular product isn't enough, the required advantages can only be determined through interaction with the consumer. In this situation, the company must plan for the capabilities and capacity necessary to respond to customers who contact. Interactions with the client define how and what service will be given when the benefit takes the shape of a service. "How can I help you?" is a question that restaurants, health care providers, and banks ask of their customers.

Subway and other distribution centers respond to individual requests rather than producing to inventory. The consumer contacts the customer contact person, who interacts with them to determine their needs and establish a delivery strategy for them. A choosing list serves as the delivery strategy. The picking list is sent to the warehouse, where the order is chosen from inventory, packaged according to order size, shipping method, and client specifications, and despatched as requested.

It's worth noting that in each of these scenarios, the company first builds some amount of capacity, or the ability to handle a variety of consumer requests. In certain circumstances, such as at a research hospital, the capacity is rather large, and in others, such as an oral surgeon, the skills necessary are

extremely specialized. In both circumstances, the company must respond to individual client requests while also managing capacity to ensure maximum use. It is then critical to consider how the organization is formed in order to integrate and coordinate its activities. This is true not only when meeting a customer's specific needs, but also when deciding the percentage of product that is sold rather than thrown away.

2.2. Empirical Review

Logistics has continued to grow at a remarkable pace, countries tend to incorporate their natural resources with excelled logistics services so as to enhance their economic possession. The current prominence of logistics comes from differentiated orientations of its dimensions to a single, integrated function of its components. Ethiopia is a landlocked country which occurred following the withdrawal of Eritrea in 1991.

According to Vienna Program of Action (VPOA) for Landlocked Developing Countries in 2014–2024, the significance of the inland port and terminals located in land locked countries, like Ethiopia, serving as main outlet linkage to the sea ports that serves as an economic tool for minimizing challenges to maritime transport access and promoting economic growth and competitiveness of the country. They play a pivotal role as means of foreign currency expenditure saving, Import/Export trade facilitation, safety and security for its export and import cargo.

The Ethiopian Shipping and Logistics Service Enterprise (ESLSE) is one of the largest names in Ethiopia known for its provision of logistics service across the globe, it takes the leading spot in logistics service in Ethiopia. There are many empirical studies undertaken on ESLSE. (Addis G, 2017) in his study on the same enterprise revealed that the dimensions of logistics performance (logistics differentiation, logistics efficiency and logistics effectiveness) are poorly performed. His study recommended the Ethiopian Shipping and Logistic Service Enterprise to continuously improve their logistical performance through strengthening and developing a good relationship with others by modernizing their order management practice. Furthermore, he also advised the enterprise to further improve the relationship between customers and other sister companies or enterprises of foreign countries.

Aklile M. (2017) undertaken a study in effectiveness of multimodal transport determinants of ESLSE and concluded that shortages of logistics infrastructures resulted in increased transit cost and time. He also indicated that transit cost, transit time, logistics infrastructure and service reliability have

significant impact on multimodal effectiveness (Aklile M, 2017). The researcher recommended ESLSE should improve information technology infrastructures and equip all the ports and terminals with modern machineries and facilities in the future. The key identified challenges are network connectivity, lack of ICT usage at each level, lack of railway infrastructure, and lack of clear lows and regulations that support the involvement of privately-owned service providers (Tilahun L. and Mekonnen B, 2016).

Tilahun and Mekonnen. (2016) added that in order to improve the services of multimodal transport system, these key challenges should be solved. In order to encourage competition between private operators and the Ethiopian Shipping and Logistics Services Enterprise, the government or Ethiopian Maritime Affairs Authority is recommended to produce the possible new law or/and proclamation which requires private potential Multimodal Transport Operators to be established at the national level for developing and maintaining competitive advantage.

In another study by Ayele L. (2014) categorized the major challenges of multimodal transport service in to two main factors, internal and external factors. Poor employees' performance, poor documentation handling, unavailability of physical facility were among the internal challenges. Unprofessional involvement on the side of stakeholders, inadequate financial capacity to carry out the operation sustainably, and foreign commission agents receiving orders beyond their actual capacity, and other logistic issues have been identified as external challenges.

Abebe H. (2020) revealed that the inland port and terminal development contribution found substantial amount of benefit for Ethiopian logistics industry enhancement and serves as a simplification gear for major import/export goods flows of the country. The research study findings identified unavailability of sufficient trucks and port equipment, skilled manpower, computerized system to enhance the operational activities in Modjo dry port and terminal and indicated lack of these factors lagged the daily port operations of the inland port and terminal.

The findings of Darek A. (2019) show that the company has registered a decreasing market share and financial performance as well as a lack of customer satisfaction, loyalty, and motivation and skillful human resources. In addition, the study discusses the importance of formulating a sound strategy to overcome these challenges focusing on cost leadership or differentiation strategies as well as other strategies that can influence its competitiveness.

According to the 2020 World Bank report, Ethiopia is ranked 162nd in global logistics performance index (LPI) in 2019, from its place 138th in 2018. This shows that the country's LP is not only one of the poorly performed in the world but also it is declining. There are several factors that determine the LPI, among these and the most important are international shipment, logistics quality and competence and tracking and tracing timelines. The major government organs that constitute for betterment of the LPI are Ethiopian Customs Authority and ESLSE provided that the major role is played by ESLSE. Organizational performance of the ESLSE regulates the performance measure of logistics, facilitates coordinated integration among sectors and promotes mobilization of the logistics service to foreign direct investors and creates opportunity to economic development of the country.

As we enter the age of globalization, and as countries continue to spare their efforts to enhance their economic advantages through integrated logistics performance, Ethiopia continues to downgrade its facilitation of the sector. Despite the overwhelming evidence of its rich natural resources and despite the fact that it is a center for many diplomatic institutions, Ethiopia is still among the bottommost of the global LPI. The opportunity cost of losing an FDI due to an unpleasant logistics facilitation is quite devastating.

The number of companies entering Ethiopia decreased at an alarming rate, FDI inflows to Ethiopia decreased to USD 2.5 Billion in 2019, compared to USD 3.3 Billion in 2018 which indicated a 24% decrease (UNCTAD, 2020). Many factors could be called for the decrement, the main ones are international shipment, logistics quality and competence and tracking and tracing timelines which I stated logistics activities in this study.

All of the aforementioned studies tried to indicate different dimensions to excel the organizational performance of the enterprise. None of them revealed to assess the effect of the organization's logistics practices towards logistics performance index of Ethiopia. In my research, I will analyze the effect of the logistical practices in ESLSE towards its logistics performance and study what impact the logistics performance will have on Ethiopia's global LPI rank and what implications they possess on the overall economy.

Despite the previous studies, professional logisticians expressed Ethiopian logistics performance a lagging facility characterized by lack of skilled manpower, poor infrastructure facilitation, very high lead time for arrival of goods and unreliable tracking and tracing of goods after shipment (World

Bank, 2019). According to World Bank's report, it will take 123 days in order to process bank permit and import goods to Ethiopia, the lead time for imported goods to be cleared from ports is 60days. Ethiopia is in the least position taking 60 days (giving it the highest number of days in the world) to complete export of goods through airport or port supply chain.

Ethiopian Shipping and Logistics Services Enterprise needs to admit the existence of the problems and take the lead to identify the root causes of the problems, set an objective, gather all concerned and accountable bodies that have connection with the organization, discuss the issue with the concerned bodies including professionals and discuss options to improve the logistics performance of the country. In order to do this, studies like mine will have a paramount importance in providing insights to the organization.

The world bank report is an index that measures the dimensions of the LPI, then compares and ranks countries' LPI position. It is used as a benchmarking for countries to identify their position as compared to other nations, it doesn't suggest what the countries should do to improve their logistics performance rank. The main objective of the world bank report is to measure the efficiency of logistics supply chains based on survey feedback from professional logisticians across companies of different nations. The report shows Ethiopia's logistics service is one of the slowest services in the world that is characterized by regressive workflow, very slow logistics service and high service charge for service users.

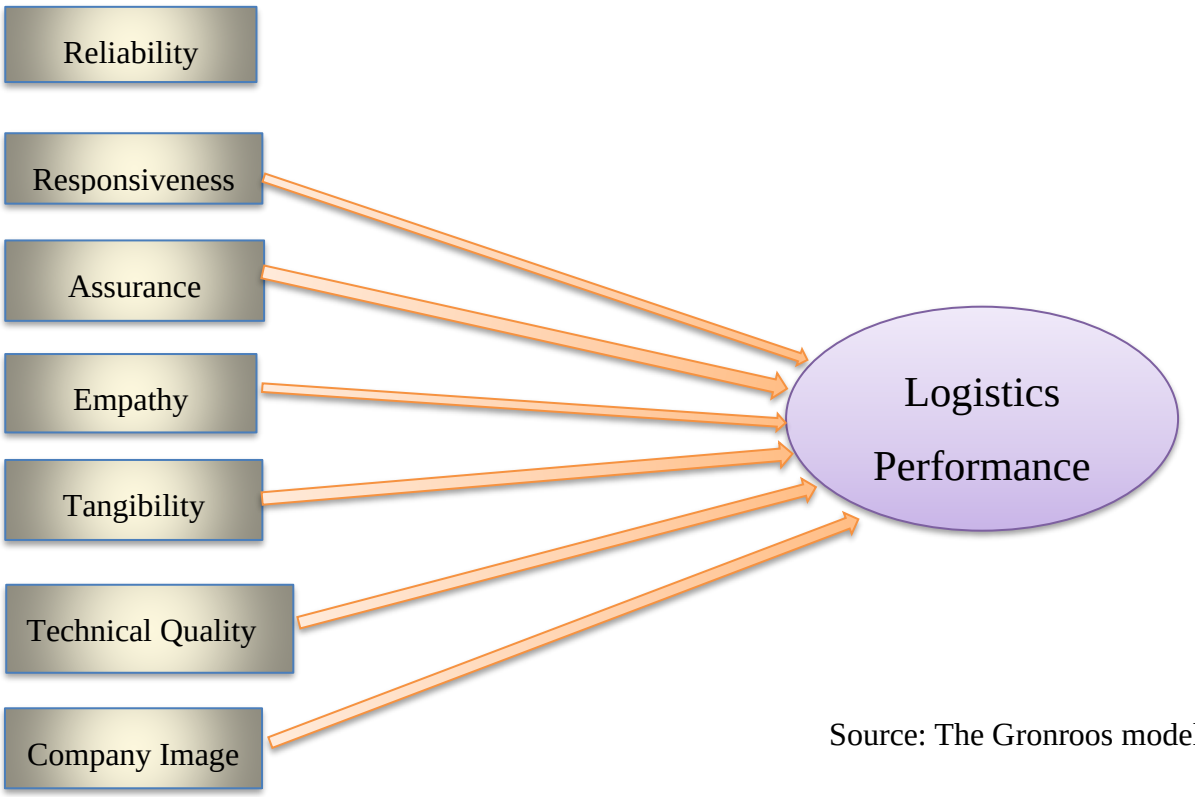
The study aimed to identify the causes that disposed to the poor and inefficient performance of the logistics practices and identify the root causes of the problems. I will examine if there is a positive relationship between the logistics practices of ESLSE and the logistics performance index of Ethiopia. The study will inform policy makers on potential reform areas, suggest a way to excel the practices related with the dimensions of the LPI and provides an input to have a better global performance rank. It is intended to propose alternatives to quality service provision and increased competency level of the enterprise.

2.3. Conceptual Framework of the Study

The aim of this study was to investigate the effect of logistics service delivery on logistics performance in the case of Ethiopian Shipping and Logistics Services Enterprise. Based on the theoretical and empirical reviews and the model suggested by Gronroos, the attributes of logistics service towards the logistics performance is is shown. In this regard, a model developed by G. Kang

and J. James (2004) is adapted to measure the logistics performance of customers of ESLSE on a basis of their logistics service delivery perception.

Figure 2.4 Conceptual Framework



Source: The Gronroos model (2001)

2.4. Research Hypotheses

Based on the aforementioned empirical literature reviews, the following hypotheses are proposed:

H1 – Service reliability has significant and positive effect on logistics performance.

H2 – Service responsiveness has significant and positive effect on logistics performance.

H3 – Service assurance has significant and positive effect on logistics performance.

H4 – Service empathy has significant and positive effect on logistics performance.

H5 – Service tangibility has significant and positive effect on logistics performance.

H6 – Technical quality aspect of the service dimension has significant and positive effect on logistics performance.

H7 – Company image has significant and positive effect on logistics performance.

The main purpose of this study is to determine the effect of the seven dimensions of logistics service delivery on logistics performance of ESLSE.

CHAPTER THREE

3. METHODOLOGY

Research methodology comprises of topics related to how the research is carried out with respect to methodological grounds. The purpose of this chapter is, thus, to indicate the various processes to be involved to address the research questions raised in the statement of the problem. It commences laying out the research design and approach following sampling technique, data collection tools and procedures to be used to collect the data, along with how the collected data analyzed.

3.1. Research Approach

Qualitative research involves studies that seeks to describe various aspects about the behavior and other factors in the field of social sciences and human psychology. It helps to look deeper than analyzing ranks and counts by recording attitudes, feelings and behaviors and encourages people to expand on their responses and can open up new topic areas which are not initially considered. On the other hand, quantitative approach is based on measurement and is conducted in a systematic, controlled manner. These measures enable researchers to perform statistical tests, analyze differences between groups, and determine the effectiveness of treatments. Since it is important to confine mathematical models, theories and hypotheses relating to the natural phenomena, quantitative data are required for the analysis to find proof of the relationship between study. Thus, quantitative research approach was used in this study by quantifying and statistically measuring data in seek of evidence about the characteristics or a relationship between the stated variables.

3.2. Research Design

According to Creswell (2007), there are different criteria in selecting research approaches based on three factors which includes the research problem, the researchers' personal experiences and the people for whom the research will be organized. A research design shows the master plan for collecting and analyzing the required data by specifying the methods and procedures that is going to be used. Based on purpose, research design is classified into three main categories such as descriptive, exploratory and explanatory researches. Explanatory research seeks explanations of observed phenomena, problems, or behaviors. While descriptive research examines the what, where, and when of a phenomenon, explanatory research seeks answers to why and how types of questions.

It attempts to “connect the dots” in research, by identifying causal factors and outcomes of the target phenomenon. In order to obtain best analysis results about logistics service of ESLSE, the main research methodology implemented is explanatory research since the student researcher aimed at gathering information plausible to provide description and explanation of the objectives under study.

3.3. Data Types and Sources

According to Catherine (2017), data may be collected as primary, secondary or both. Primary data are originated by the researcher for a specific purpose of addressing the problem at hand. On the other hand, secondary data contains relevant data that has been collected for a different purpose, but from which the conclusion is valuable for the purpose. In this study primary data source was used for further analysis. The data gathering was obtained from customers of ESLSE in order to obtain detailed first-hand data.

3.4. Population of the Study

For this study, customers of ESLSE recorded as general importers who are importing goods for a purpose of merchandizing and based in Addis Ababa are recognized as the population under study. The enterprise has 1665 general importers located in Addis Ababa (source: ESLSE marketing department records).

3.5. Sampling Procedures

Sampling Technique

There are two basic sampling techniques namely probability and non-probability sampling. Purposive non-probability sampling technique was used to select the targeted respondents from the sampling frame in this study. There were limitations while collecting data in the authority and knowledge of respondents about the study area, so it was impossible to undertake a stochastic sampling technique. Purposive sampling is one of the non-probability sampling techniques that helps select the targets from the population based on the researcher’s personal judgement. For heterogeneity of responses, the elements from the population were considered to be substantially different geographically and based on the commodity types they imported. Thus, purposive sampling method was employed to generalize the results of the findings to the entire population.

Sample Size

The sample size for a known population is determined by the relation,

$$n = \frac{\mathrm{N}}{1+\mathrm{N}e^2}$$ (Yemane, 1967).

where,

n is the sample size,

N is total population, and

e the error term. For 95% accuracy the error factor **e** is 0.05.

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

Substituting the values into the equation we get

$$n = \frac{1665}{1 + 1665(0.05)^2}$$

$$n = 322.5$$

Rounding up n = 323. Hence, the sample size determined is 323.

3.6. Data Gathering Instrument

A survey questionnaire was used to collect the primary data. As suggested by (Creswell, 2009), administering questionnaires allows the researcher to collect data with low cost even when the universe is large and is widely spread geographically. A five-point Likert-scale was found to be appropriate measurement for rating the effect of logistics services towards the logistics performance and helps to easily describe the data output using mean, standard deviation and other statistical values. For the purpose of performing statistical analysis on the questionnaire, the respondents were asked to rate some statements related to the company's logistics services. The questionnaire consisted of scaled responses from 1 to 5, such that 1 = strongly disagree, 2 = disagree, 3 = neutral, 4 =agree, and 5 = strongly agree.

Since there is a standard questionnaire that will be used to rate the countries' logistics performance and issues related in managing them at a global level, the questionnaire was prepared by synchronizing different related studies and adding some more statements in addition. To increase validity of the instrument, experts' views and suggestions were considered and the final questionnaire was prepared and distributed to respondents.

The questionnaire was adapted from G. Kang and J. James (2004) which is based on Gronroos (2002) new model and was prepared on mobile cell phone retail service quality. It is comprised of three parts. The first part involves the general characteristics of the targeted respondents; the second part was all about the seven variables determining logistics service delivery dimensions incorporating the functional, technical and image aspects by further extending the functional dimension to reliability, responsiveness, assurance, empathy and tangibility aspects as suggested by Groroos (2004); while the third part includes the attributes of logistics performance.

3.7. Data Analysis Techniques

In analyzing quantitative research, they provide a proposed explanation for the relationship among variables being tested by the investigator. In order to build concurrent triangulation strategy, the researcher collected quantitative data and compared the data to examine the hypothesis developed in the research (Creswell, 2009). According to Brink (as cited in Murray, 2012), data are analyzed to categorize, manipulate, summarize and to give order to describe in meaningful terms (Murray, 2012).

Both descriptive and inferential statistics were used to analyze the quantitative data gained through structured questionnaire. To analyze the data obtained from respondents from questionnaire, the researcher went through all the gathered data carefully. After removing unanswered and invalid responses, then the researcher gave codes to each section of the text and finally organized, presented and analyzed them using statistical tool IBM SPSS version 20 which enables readers to have a clear, organized and statistically stated idea about the topic.

Regression analysis is a statistical method to deal with the formulation of mathematical model depicting relationship amongst variables which can be used for the purpose of prediction of the value of dependent variable, given the value of the independent (Kothari, 2004). The aim of the study is to see the effect logistics services in logistics performance in terms of coefficient of determination (r^2 value), the regression coefficient (beta coefficient) and the p-values (ANOVA Test3) for the significance of each relationship. Hence, regression is very important to meet the objective.

Model specification was confirmed using R-Square value and goodness of fit was confirmed using F-statistic to eliminate omitted variable bias while accepting or rejecting the null hypotheses and to improve the model of fitness. Before conducting the regression analysis, regression assumption tests (multi-collinearity, homoscedasticity, linearity, independence of residuals and normality) were carried out; and correlation coefficients were used to quantitatively describe the strength of the association between the independent variables. Regression analysis was used using the linear regression model as;

$$y_i = \beta_1 x_1 + \beta_2 x_2 + \beta_3 x_3 + \beta_4 x_4 + \beta_5 x_5 + \beta_6 x_6 + \beta_7 x_7 + e$$

where; y = LP = Logistics Performance;

x_1 = Reliability;

x_2 = Responsiveness;

x_3 = Assurance;

x_4 = Empathy;

x_5 = Tangibility;

x_6 = Technical Quality;

x_7 = Company Image;

e = error term;

β_0 = constant term;

$\beta_{1, 2, 3, 4, 5, 6 \& 7}$ = coefficient terms of the corresponding listed variables.

Source: Own Survey, 2021

3.8. Reliability and Validity

To evaluate the research instruments, reliability is one of the major criteria. Reliability estimates the consistency of the measurement or simply, the degree to which an instrument measures the same way each time it is used under the same conditions with the same subjects (john, 2013). In this study, Cronbach's alpha was used to assess the internal consistency of variables in the research instrument. Cronbach's alpha (α) is a coefficient of reliability used to measure the internal consistency of the scale; it is represented numerically between values 0 and 1, inclusive.

The degree to which data gathering techniques or analysis procedures will produce consistent results is referred to as reliability (Saunders, M, Lewis, P. and Thornhill, A., 2007). Cronbach's Alpha test is one of the data reliabilities evaluating tests. Cronbach's Alpha was determined as part of the reliability test to see how reliable the results were, and if the sample size was expanded, comparable generalized results should be obtained (Feild,A., 2006). The Alpha value runs from 0 to 1, inclusive, with 0.70 or greater being a good measure of alpha (Neuman W.L., 2007). A "high" alpha value, on the other hand, does not suggest that the measure is one-dimensional. Technically speaking, Cronbach's alpha is a coefficient of reliability (or consistency).

Table 3.1 Chronbach's Alpha Reliability

Reliability Statistics		
Variables	**Cronbach's Alpha (α)**	**N of Items**
Reliability	.865	4
Responsiveness	.840	3
Assurance	.821	4
Empathy	.769	4
Tangibility	.849	4
Technical Quality	.714	3
Company Image	.879	5
Logistics Performance	.805	7
Overall Reliability	**.876**	**34**

Validity is the most critical criterion and indicates the degree to which an instrument measures what it is supposed to measure (Creswell, 2009). Content validity is the extent to which a measuring instrument provides adequate coverage of the topic under study. A valid measure, according to (Dunn, S.D., 1999), is one that accurately measures or manipulates the construct of interest. Validity can be thought of in a variety of ways.

Furthermore, (Dooley, D., 2003) states that construct validity is typically the most significant factor in social research since it mitigates the risk that the measures used are unrelated to the theory under

consideration. Factor analysis is a statistical approach that can be used to analyze the construct validity of a measure. The correlations between all of the test items are used in factor analysis to discover groups of items that correlate more strongly among themselves than with items outside the group. A measure should ideally consist of components that reflect only one construct.

To increase validity of the instrument, experts' views and suggestions were considered and the final questionnaire was prepared and distributed to respondents. In addition, a pilot survey was conducted on 12 respondents at randomly selected customers of ESLSE in Addis Ababa, of which the contacted respondents are excluded from the sample frame, prior to administrating the questionnaire of the main study to the targeted sample respondents. The pilot test helped to check whether the questionnaire is clear, easy to understand and straightforward to ensure that the respondents able to answer the questions with no difficulty.

3.9. Ethical Considerations

In conducting any research, it is the responsibility of every researcher to conduct his/her study responsibly to maintain high scientific research standards in the methodology part by ensuring the validity of the research. In this particular research apparently, the responses obtained from respondents may seem to raise conflict of interest due to disclosure of the confidentiality issues customers may consider in some questions. These questions might be sensitive and private matters with the organization in the opinions of customers. To avoid the conflict of interest, the purpose of the study was clearly stated, and the confidentiality would be strictly maintained in the questionnaire. Furthermore, questionnaire was distributed only to volunteers and those who were willing to respond after clarifying the purpose through phone.

CHAPTER FOUR

4. DATA PRESENTATION, ANALYSIS AND INTERPRETATION

This chapter contains the study's findings, which are based on a review of the data collected from the respondents and a discussion of the findings based on the literature. As stated in the previous chapter, the primary goal of this research is to look into the effects of logistics services on logistics performance in the case of Ethiopian Shipping and Logistics Services Enterprise. The data collected from the primary source via questionnaire was processed, presented, and interpreted in this section in order to achieve the study's objectives.

Once the primary data was collected, prior to the analysis, the questionnaire was reviewed and it was to certify that if questionnaires were filled appropriately. Any incomplete or missing responses were rejected from the subsequent analysis. The steps which stated in the data analysis section such as coding, eliminating coding and data entry error, known as “clearing the data”, (Rubin & Babbie 2010) was performed in this research.

Prior to the analysis, the questionnaire was examined after the primary data was obtained to ensure that the questionnaires were filled out correctly. Any replies that were incomplete or missing were excluded from the analysis. Rubin & Babbie (20) define "clearing the data" as the steps listed in the data analysis section, such as coding, minimizing coding and data entry errors.

Customers of Ethiopian Shipping and Logistics Services Enterprise in Addis Ababa City received the questionnaires in person. To the target populations, 323 questionnaires were distributed. After removing missing values and extreme cases, the data analysis was left with 279 responses, resulting in a response rate of 86.4%, which Hair considers to be a very good percentage (2010). Furthermore, a response rate of 70% is considered "very good" for further evaluation by Rubin & Babbie (2010), hence the response rate can be deemed noteworthy.

4.1. General Information about the Respondents

The socio-demographic characteristics of respondents is summarized in the below table. The demographic profile of the sampled respondents is depicted in the table above, which was created to show the demographic results of the respondents.

Table 4.1 Socio-Demographic Characteristics of Respondents

Demographic Variable	Categories	Outcomes	
		Frequency	Percentage (%)
Educational Qualification	High School	2	0.7
	Certificate	13	4.7
	College Diploma	23	8.2
	BA/BSc Degree	220	78.9
	MA/ MSc Degree or above	21	7.5
	Total	**279**	**100**
Position in Organization	Senior Executive	18	6.5
	Department Head	37	13.3
	Supervisory Level	92	33.00
	Operations	132	47.3
	Total	**279**	**100**
Freight Mode	Maritime	123	44.1
	Road	11	3.9
	Rail	3	1.1
	Multimodal	142	50.9
	Total	**279**	**100**
Primary Business Direction	Import	188	67.4
	Import and Export	91	32.6
	Total	**279**	**100**
Mainline of Work	Full Container/ Trailer Loads	217	77.8
	Less than Full Container/ Trailer Loads	39	14.0
	Bulk/ Break Bulk Cargo	19	6.8
	Customer tailored Logistics Solutions	4	1.4
	Total	**279**	**100**
Country of Operation	Africa	27	9.7
	Asia	120	43.0
	Europe	79	28.3
	North and South America	44	15.8
	Australia/ Oceania	9	3.2
	Total	**279**	**100**

Source: Own Survey Result of SPSS, 2021

As a result of the descriptive analysis, more than 86% of the total respondents had a BA/ BSc or higher educational background, while the remaining 14% had a college diploma or less. This implies that majority of the respondents were well educated and it can be taken as a positive indication regarding credibility of the responses from the respondents.

In terms of the respondents' assigned positions in their organizations, 47.3% worked at the operational level, followed by 33% at a supervisory level. Department heads and senior executives accounted for 13.3% and 6.5% of responses, respectively. It is evidenced that operational level employees are more in number in most organizations. And this finding has an implication that the sample representativeness of the staff population in the company.

The freight mode of the respondents primarily dealt with is dominated by multimodal and maritime services that accounted for 50.9% and 44.1% respectively, road and rail services accounted only 5%. Furthermore, business direction that the respondents primarily dealt with is import which accounted 67.4% followed by import and export that accounted 32.6%. This also implies that importers are more in number as the country is also net import, i.e., the import is more than the export value. This indicates that the sample more or less represent the importer population.

Of all the respondents, the mainline of work of the majority of respondents is full container loads which accounts 77.8% followed by less than full container and bulk cargo which accounted 14% and 6.8% respectively. 43% of respondents primarily operated in China, the middle east and the rest of Asia, 9.7% to Africa, 28.3% to Europe, 15.8% to North and South America and 3.2% dealt with Australia and the rest of Oceania as shown in table 1. This has an implication that the respondents imported items from China and Middle East but it premature to conclude all about the general information of the respondents with this scope and sample size. It needs further investigation to see the effects of demographic characteristics of the importers.

4.2. Descriptive Analysis of the Variables

All variables listed on the questionnaire were categorized following Gronroos model in order to assess the effects of logistics services towards logistics performance. The dimensions are broadly discussed in the literature review and were examined in terms of functional quality dimension, technical quality (TEQ) and image (IM). The functional quality dimension incorporated reliability (REL), assurance (ASU), tangibility (TAN), empathy (EMP) and responsiveness (RES). The development of a multidimensional service quality measurement scale and a logistics performance

scale were required for this study. Meanwhile, the mean value and the standard deviation of the variables are stated as shown in the following table.

According to Best (1987), the scale is set in such a way that respondents strongly disagreed if the mean scored value is in the range of 1.00 – 1.80; disagreed within 1.81 – 2.60; neither agreed nor disagreed within 2.81 - 3.40; agreed if it is in the range of 3.41 – 4.20; while strongly agreed when it falls within 4.21 – 5.00. In addition, standard deviation shows the variability of an observed response. Below, the results are discussed one by one.

Table 4.2 Descriptive Analysis of the variables

Descriptive Statistics					
	N	Minimum	Maximum	Mean	SD
Reliability	279	1	5	3.27	1.498
Responsiveness	279	1	5	3.30	1.264
Assurance	279	1	5	3.93	1.184
Empathy	279	1	5	3.35	1.154
Tangibility	279	1	5	3.56	1.162
Technical Quality	279	1	5	3.41	1.121
Image	279	1	5	3.28	1.527
Logistics Performance	279	1	5	3.58	0.858
Valid N (listwise)	279				

Source: Own Survey Result of SPSS, 2021

The above table 2 presents the descriptive statistics of logistics service dimensions using Gronroos service quality model and results were displayed by using mean and standard deviation (SD). The researcher used the Gronroos model which was based on Gi-Du Kang and Jeffrey James (2004) that was adapted to examine the relationship between service quality, customer satisfaction and loyalty level of cell phone users in South Korea. Depending on their study, the researcher viewed the attributes of logistics services in three major constructs namely functional quality, technical quality

and image and examined the relationship of these variables with logistics performance. The model has 34 items to measure logistics performance. Hence, the respondents were asked how they considered services that were provided and their level of satisfaction by using five-point Likert scale ranging from (1) “strongly disagree” to (5) “strongly agree”. Lower mean value indicates responses disagreement while higher values for strong agreement. The standard deviation (below 1.0) indicates relatively low variability of respondent’s response while more than 1.0 shows high variability of response on same subject.

As stated in table 2, the mean scores of reliabilities and image are 3.27 and 3.28 respectively showing the results are marginally above the mid-points, which means that customers were neither agreed nor disagreed and their perceived value on the enterprise’s image were relatively neutral. Yet, the mean scores of the variables Assurance, Tangibility and Technical Quality were all between the margins 3.41 to 4.20, respondents chosen a good attitude on the service dimensions. Customers were also asked to judge their opinions towards the overall logistics performance of the enterprise. Accordingly, the average score for their level of satisfaction of the variable was 3.58 which means that the customers of the enterprise were have a good attitude on the performance of the enterprise. This implies that assurance, tangibility and technical quality influenced the importer logistic performance in ESLSE in Addis Ababa whereas the respondents perceived reliability and company image had less impact on their logistic performance.

4.3. Inferential Statistics

Before undertaking the analysis to examine the effect of the independent variables on the dependent variable, it is important to undertake the correlation, assumption test and regression results to address the proposed hypotheses.

4.3.1. Correlation Analysis

According to Gronroos' model, a Pearson correlation test was used to determine the size of the correlation between the dependent variable (logistics performance) and the independent variables (factors that affect logistics performance) (functional quality, technical quality and company image) The functional quality was measured in five dimensions according to (Zeithaml, 1981) namely, reliability, responsiveness, assurance, empathy, and tangibility. Each independent variable was compared to the dependent variable. The following measure of association, created by MacEachron

(1982), was used as a reference to check the level of correlation between the dependent and independent variables.

Table 4.3 The measures of associations and descriptive adjectives

Measure of Association	Descriptive Adjective
> 0.00 to 0.20; < -0.00 to –0.20	Very weak or very low
> 0.20 to 0.40; < -0.20 to –0.40	Weak or low
> 0.40 to 0.60; < -0.40 to –0.60	Moderate
> 0.60 to 0.80; < -0.60 to –0.80	Strong or high
> 0.80 to 1.0; < -0.80 to –1.0	Very high or very strong

(Source: MacEachron, 1982).

The statistic that offers an indicator of that link is termed a correlation coefficient r, which is a measure of the relationship between two interval or ratio variables. A correlation is a quantifiable relationship between two variables. It's a handy way to summarize the relationship between two variables with a single number that ranges from -1 to +1. (Field, 2005). According to Field (2005), strength of relationship of 0.1 to 0.29 indicates a weak association, 0.3 to 0.49 indicates a moderate association, and a relationship more than 0.5 indicates a significant association between the variables. As a result, correlation analysis was utilized to investigate the correlations between the dependent and independent variables in this study. The table below shows the association between the various factors.

Table 4.4 Correlation Matrix Between Logistics Services and Logistics Performance

Correlations								
	REL	RES	ASU	EMP	TAN	TEQ	IM	LOP
Reliability	1							
Responsiveness	.387**	1						
Assurance	.228**	.324**	1					
Empathy	.204**	.404**	.375**	1				
Tangibility	.227**	.379**	.455**	.437**	1			
Technical Quality	.280**	.315**	.484**	.395**	.708**	1		
Company Image	.118*	.238**	.263**	.291**	.256**	.329**	1	
Logistics Performance	.421**	.556**	.552**	.670**	.640**	.628**	.375**	1
**. Correlation is significant at the 0.01 level (2-tailed).								

*. Correlation is significant at the 0.05 level (2-tailed).

Source: Own Survey Output, 2021

From the above correlation matrix, the researcher found the following results under each construct, supported with their related empirical evidences:

4.3.2. The Assumptions for Testing Regression Analysis

The researcher has conducted the five assumptions, namely multicollinearity, normality, homoscedasticity, linearity and independence of residuals that have to be fulfilled before testing multiple linear regression which otherwise be impossible to run the regression. The tests for the five assumptions of multiple regressions are presented hereunder:

I. Multicollinearity

Multicollinearity exists when independent variables in the regression model are highly correlated with each other than with the dependent variable and when the independent variables have high correlation to each other, they are basically measuring the same thing (Field, 2006). If the correlation between independent variables is greater than 0.80, it implies that there is an issue of multicollinearity (Hair et al. 2006). Yet, as indicated in table 4 of correlation analysis, the results of the correlation coefficient between independent variables was below 0.8. Therefore, these results indicated that there was no collinearity problem in this study.

However, to ever see the existence of multicollinearity between independent variables, there are two general procedures for assessing collinearity, these are, tolerance and variance inflation factor (VIF) (Pallant, 2007). Tolerance indicates how much of the variability of the specified independent variable is not explained by the other independent variable in the model. If this value is very small (less than 0.10), it indicates that the multiple correlation with other variables is high, suggesting the existence of multi-collinearity (Pallant, 2010). The other value given is the VIF, which is just the reciprocal of the tolerance value (1 divided by tolerance). According to Pallant (2010), VIF values above 10 would be a concern, indicating multicollinearity.

The results in this study show that the tolerance value for each independent variable are (0.819, 0.694, 0.695, 0.701, 0.448, 0.439, and 0.847) respectively which are not less than 0.10; therefore, multicollinearity assumption is not violated. This is also supported by the VIF value, which are well below the cut-off 10 as shown in the collinearity diagnosis table.

Table 4.5 Collinearity Diagnosis

Model		Collinearity Statistics	
		Tolerance	VIF
1	Reliability	0.819	1.222
	Responsiveness	0.694	1.440
	Assurance	0.695	1.438
	Empathy	0.701	1.426
	Tangibility	0.448	2.231
	Technical Quality	0.439	2.277
	Company Image	0.847	1.181
a. Dependent Variable: Logistics Performance			

Source: Own Survey Result of SPSS data output, 2021

I. Test of Normality

The assumption of normality shows the distribution of the errors for any given combination of values on the predictor variables (independent variables) (Matt N, Carlos A, and Deson K, 2013). One way of measuring the normality of distribution is through checking the level of skewness and kurtosis. Usually the value of skewness and kurtosis for normal distribution is varied from 1 to -1. In fact, Skewness provides an indication of the symmetry of the distribution. Kurtosis turns to the peaky or flatness of the distribution relative to the normal distribution.

Accordingly, the normal distribution is detected based on skewness and kurtosis statistics. As proposed by George and Mallery (2010) the acceptable range for normality for both statistics is between -2 and +2. Therefore, as depicted in table 8 below, all variables' values of Kurtosis and Skewness are almost within the acceptable range for normality. So, this implies that all items show close to normal distribution considering the criteria of Skewness and kurtosis values between -2 and 2. Therefore, the data used in this study was normally distributed.

Table 4.6 Collinearity Diagnosis

Descriptive Statistics

	N	Skewness		Kurtosis	
	Statistic	Statistic	Std. Error	Statistic	Std. Error
Reliability	279	-.358	.146	-1.355	.291
Responsiveness	279	-.105	.146	-1.499	.291
Assurance	279	-.762	.146	-.841	.291
Empathy	279	-.186	.146	-1.022	.291
Tangibility	279	-.232	.146	-1.333	.291
Technical Quality	279	.131	.146	-1.318	.291
Company Image	279	-.333	.146	-1.442	.291
LOP	279	-.044	.146	-.628	.291
Valid N (listwise)	279				

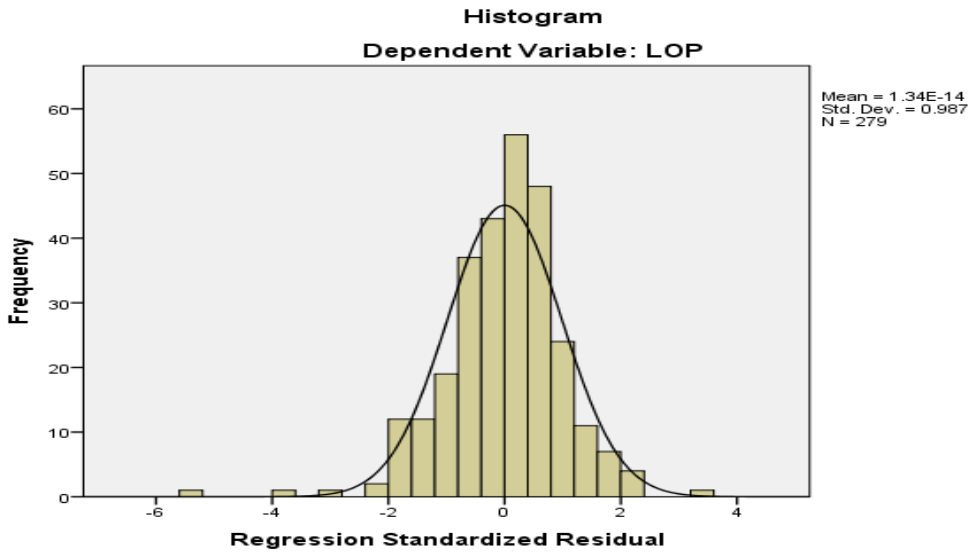


Figure 4.1 Frequency Distribution of Standardized Residuals

From the histogram diagram above we can observe that the scores are normally distributed. In addition to the histogram, the P-P plot (probability-probability plot) is also used to show the normality of the data distribution. The plots are different from residuals plots in which the standardized residuals are compared with the normal distribution (Hair et al. 1998). In general, the normal distribution makes a straight diagonal line, and the plotted residuals are compared with the diagonal. If a distribution is normal, the residual line will closely follow the diagonal (Hair et al., 1998). From the P-P plot diagram we can see that the distribution is normal.

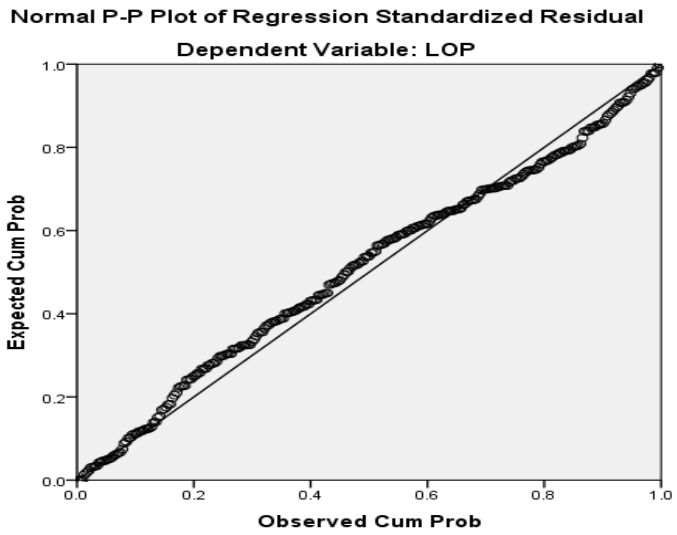


Figure 4.2 Normal P-P Plot of Standardized Residuals

I. Homoscedasticity

According to Saunders, et al. (2009), homoscedasticity is the degree to which the data values for the dependent and independent variables have equal variances. The variance of the residual terms should be consistent at each level of the predictor variable (s) for homoscedasticity to exist (Field, 2006). That is, model errors are supposed to have an unknown but finite variance that is constant across all levels of predictor variables. According to Matt N, Carlos A, and Deson K, this assumption is also known as the homogeneity of variance assumption (Field, 2006) and (Weisberg, 2005). (2013).

According to Field (2009), the variance of the residual terms should be constant at each level of the predictor variables, implying that the residuals at each level of the predictors should have the same variance; thus, checking for this assumption is important for the regression model's goodness. To obtain the homoscedasticity result, Field (2009) proposed plotting the standardized residuals, or errors (ZRESID) on the Y axis and the standardized predicted values of the dependent variable based on the model (ZPRED) on the X axis.

As a result, the homoscedasticity of metric variables was investigated using a scatterplot in this study. All of the variables were subjected to scatter plots of standardized residuals, with the results depicted in Figure 4. In effect, the scatterplot revealed that the data point pattern does not contain any exact patterns, indicating that the assumptions were not broken (e.g., no discernible patterns of residuals were indicated).

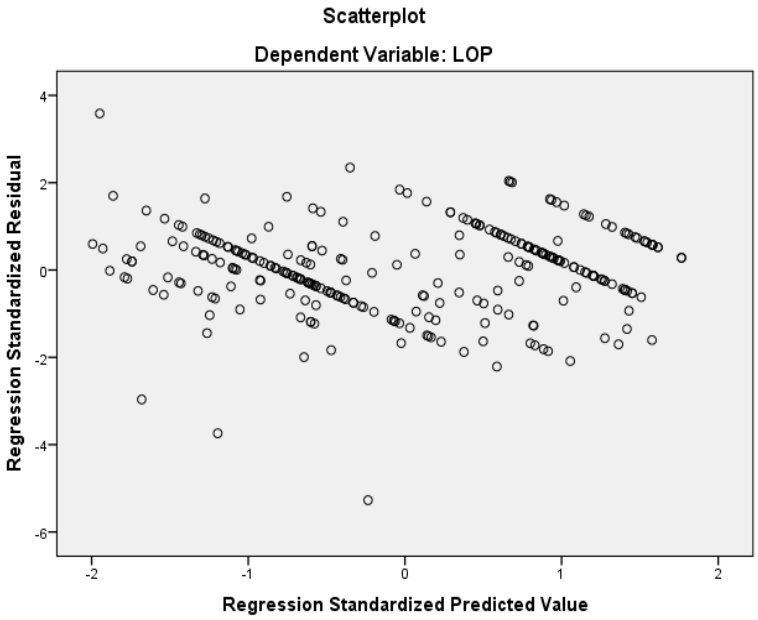


Figure 4.3 Scatterplot Diagram

I. Independence of Residuals (No Autocorrelation)

The residual terms for any observation should be uncorrelated or independent, and this is referred to as lack of autocorrelation (Field, 2006). The prediction errors, or disparities between the actual score and the regression equation's estimated score, are the residuals. Furthermore, the magnitude of the residual in one example should have no bearing on the size of the residual in the next. This implies

that the errors are thought to be unrelated (Chatterjee & Hadi, 2012; Fox, 1997; Weisberg, 2005). Any breach of this condition results in a skewed estimation of standard errors and significance, even if the regression coefficient estimate remains unbiased but inefficient (Chatterjee & Hadi, 2012), as cited by Matt, Carlos and Deson (2013).

The Durbin-Watson statistic is used to determine if the residuals are independent or if there is serial correlation among them (Field, 2006). The study's Durbin-Watson test result is shown in Table-4.6. (Please refer Table 4.8)

The Durbin-Watson test statistic has a range of 0 to 4 test statistics. If the Durbin-Watson value is around 2, and the allowed range is 1.50 - 2.50, the residuals are independent (not correlated). A negative correlation is explained by a number more than 2, whereas a positive correlation is explained by a number less than 2 (Field, 2006, Babatunde O.S, Oguntunde P.E, Ogunmola A.O, and Balogun O.S) (2014). The Durbin-Watson score for this study is 1.703, which is within acceptable range and it shows that the assumption of independent errors is acceptable and there is no autocorrelation problem.

II. Linearity

The degree to which the change in the dependent variable is related with the independent variable is measured by the linearity of the relationship between the dependent and independent variables (Hair et al., 1998). In a nutshell, linear models predict values falling in a straight line by assuming the dependent variable has a constant unit change (slope) for a constant unit change of the independent variable (Hair et al., 1998). Scatterplots or residual plots can be used to test this assumption in figure 4.2: plots of the residuals (figure 4.3) against either the expected values of the dependent variable or against (one of) the independent variable/s (Hoekstra et al., 2014

4.3.3. Regression Analysis

To find out weather linear relation exists between one dependent variable and more than one independent variables, linear multiple regression model is used. With this general principle, this particular study tried to exert linear multiple regression analysis to analyse, the effect of several logistics service factors on logistics performance. Those factors are treated as independent variables and logistics performance is considered as the dependent variable.

The coefficients of a linear equation are estimated using linear regression, which involves one or more independent variables that best predict the value of the dependent variable (Field, 2005). Multiple linear regressions were used to determine the explanatory power of the independent variables (assurance, reliability, responsiveness, empathy, tangibility, technical quality, and company image) in order to identify the relationship and the most dominant variables that influenced the dependent variable, logistics performance, at a level of significance of 0.05 with a 95 percent confidence interval.

The correlation between observed and predicted values is represented by the R value. It indicates the value of the multiple correlation coefficients between the predictors and the outcome, with a range of 0 to 1, where the closer the value gets to 1, the higher the correlation is, 1 indicating an equation that precisely predicts the observed value (Pedhazur, 1982). On the contrary, a value closer to zero indicates lower correlation where zero shows absence of linearity. The linear combination of the seven independent variables (assurance, reliability, responsiveness, empathy, tangibility, technical quality, and company image) strongly predicted the dependent variable (logistics performance), based on the model summary (R=.850[a]) in table 4.8.

Table 4.7 Model Summary

Model Summary [b]					
Model	**R**	**R Square**	**Adjusted R Square**	**Std. Error of est.**	**Durbin-Watson**
1	**.850[a]**	**.723**	**.716**	**.45724**	**1.703**

a. Predictors: (Constant), Reliability, Responsiveness, Assurance, Empathy, Tangibility, Technical Quality, Image

b. Dependent Variable: Logistics Performance

Source: Own Survey Result of SPSS data output, 2021

R Square (R^2) value indicates the proportion of variance in the dependent variable that can be explained by a linear combination of the independent variables. In other words, R^2 is a measure of how much the predictors justified the outcome variability. R^2 values range from 0 to 1 according to (Pedhazur, 1982). The linear combination of independent variables or predictors, such as assurance, reliability, responsiveness, empathy, tangibility, technical quality, and company image, explains

72.3% of the variance in logistics performance, while extraneous variables, which were not included in this regression model, explain the remaining 27.7 percent.

Adjusted R Square (R^2): The adjusted R^2 gives an indication of how well the model generalizes, and its value is equal to, or very near to, R^2. That is, the value of R^2 is adjusted to better represent the population under study (Pedhazur, 1982). The final model's change is minor (the difference between R^2 and Adjusted R^2 is (0.723 - 0.716 = 0.007), or roughly 0.7 percent). This value suggests that the model would account for about 0.7% less variance in the outcome if it were derived from the population rather than a sample.

Durbin-Watson (Durbin-Watson): It expresses whether or not it is appropriate to assume independent errors. Values less than 1 or greater than 3 should clearly ring alarm bells, according to the conservative rule (Field, 2005). Yet, the desired result is when the value is closer to 2, and the value for this data is 1.703, which is near to 2 that the assumption is nearly likely met.

Table 4.8 ANOVA of Logistics Performance

ANOVA[a]

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	148.139	7	21.163	101.224	.000[b]
	Residual	56.658	271	.209		
	Total	204.797	278			

a. Dependent Variable: LOP

b. Predictors: (Constant), IM, REL, TAN, EMP, ASU, RES, TEQ

Source: Own Survey Result of SPSS data output, 2021

Based on the responses collected from employees of ESLSE, we can conclude that the R and R square between the dependent variable logistics performance and the seven independent variables are statistically significant. The analysis of variance (ANOVA) was used to see if the mean of one dependent variable differed significantly across categories of other independent variables. The results of the significance test for R and R2 using an F-statistic are provided in table 4.9. The R square is significantly different from zero and there is a relationship between the independent variables

(logistics services) and the dependent variable (employee productivity) in the population because the test result is significant, with a P-value below 0.05. (Field, 2006).

F–Ratio: The F–ratio indicates whether the model fits the data well. The F-ratio is determined by the ratio of the model's mean square of the residual terms (MS Regressions) by the model's mean square of residuals (MS Residuals). If the benefit of fitting the regression model outweighs the model's inaccuracy, the value of F will be greater than 1, and SPSS calculates the exact probability of getting the value of F by chance (Pedhazur, 1982). The given model's F-ratio is 101.224, which is extremely improbable to have occurred by coincidence.

The researcher focused on the values of the standardized Beta coefficient in order to determine the relative importance of each independent variable in predicting the dependent variable, as well as the unstandardized Beta coefficient in order to formulate the linear regression equation, using the Beta Coefficient table.

TABLE 4.9 Estimated Regression Coefficients

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.571	.120		4.773	.000
	REL	.088	.020	.154	4.359	.000
	RES	.114	.026	.168	4.372	.000
	ASU	.107	.028	.147	3.835	.000
	EMP	.258	.028	.347	9.081	.000
	TAN	.136	.035	.185	3.868	.000
	TEQ	.129	.037	.169	3.501	.001
	IM	.042	.020	.075	2.146	.033

a. Dependent Variable: LOP

Source: Own Survey Result of SPSS data output, 2021

The Beta Weights are the unstandardized beta coefficients that tell us about the relationships between the dependent and independent variables. The association between the predictor and the outcome is positive if the value is positive. A negative coefficient indicates that there is a negative association

(Field, 2006). A β weight coefficient, according to Pedhazur (1997), tells us how much change in the dependent variable (in our case, logistics performance) we can expect from a one-unit change in the predictor variables (i.e., reliability, responsiveness, assurance, empathy, tangibility, technical quality and company image) holding all other predictor variables constant. That is, provided the other six elements remain constant, as reliability increases by one unit, logistics performance of the enterprise increases by 0.154. (Field, 2006).

The dependent variable (logistics performance) and the seven independent variables (reliability, responsiveness, assurance, empathy, tangibility, technical quality and company image) had the following linear multiple regression formula:

$$Y = a + b_1X_1 + b_2X_2 + b_3X_3 + b_4X_4 + b_5X_5 + b_6X_6 + b_7X_7 + e$$

where;

Y is Logistics Performance.

$\mathbf{X}_1$, $\mathbf{X}_2$, $\mathbf{X}_3$, $\mathbf{X}_4$, $\mathbf{X}_5$, $\mathbf{X}_6$ and $\mathbf{X}_7$ are Reliability; Responsiveness; Assurance; Empathy; Tangibility; Technical Quality; Company Image respectively.

a = constant term (the axis y-intercept)

b_1, b_2, b_3, b_4, b_5, b_6 and b_7 are beta weights for the corresponding independent variables.

e is the error term (level of significance which is 0.05 in our case)

Based on table-4.10 and taking the unstandardized beta value into consideration, the regression equation of this particular study to the nearest two decimal places can be expressed as:

$$Y = 0.571 + 0.088X_1 + 0.114X_2 + 0.107X_3 + 0.258X_4 + 0.136X_5 + 0.129X_6 + 0.042X_7 + 0.05$$

Interpretations from the equation

- For every unit increase in the value of ***reliability*** of the company setting all other predictor variable to be constant, the value of response variable ***logistics performance*** will increase by 0.088 unit or 8.8%.

- For every unit increase in the value of ***responsiveness*** in ESLSE, setting all other predictor variable to be constant, the value of response variable ***logistics performance*** will increase by 0.114 units or 11.4%.
- For every unit increase in the value of ***assurance*** of in the service provision of ESLSE, setting all other predictor variables constant, the value of response variable ***logistics performance*** will increase by 0.107 units or 10.7%.
- For every unit increase in the value of ***empathy***, setting all other predictor variable constant, the value of the response variable ***logistics performance*** will increase by 0.258 units or 25.8%.
- For every unit increase in the value of ***tangibility*** in the opinions of ESLSE customers, setting all other predictor variable constant, the value of response variable ***logistics performance*** will increase by 0.136 units or 13.6%.
- For every unit increase in the value of ***technical quality***, setting all other predictor variable constant, the value of response variable logistics performance will increase by 0.129 units or 12.9%.
- For every unit increase in the value of ***company image***, setting all other predictor variable constant, the value of response variable logistics performance will increase by 0.042 units or 4.2%.
- The discussion section is highly crucial for gaining a better grasp of the subject under study, and the following remarks are provided for this reason. This study was carried out to determine the effects of logistics services on the overall logistics performance, with a focus on customers of ESLSE who general importers of goods from different countries are. Logistics performance index is measured by six factors as per the ranks made by World Bank while the logistics performance of an enterprise can be measured by the various dimensions of logistics services. The questionnaires included a wide range of concerns that are thought to consider these broad headings.
- Logistics Performance is one of the most important and pivotal areas of commercial companies, various organizational performances and is the backbone of the overall economy of a nation since it has the potential to affect efficiency and effectiveness of various logistical inputs and related with overall cost and financial success.

Logistics performance index is measured bi-annually in an international stage based on a national logistics performance. The national logistics performance benchmarking can bridge existing enormous difference of Ethiopia versus other nations. Provision of efficient and effective service can guarantee betterment of Ethiopia's LPI rank. This instills confidence and nobility in the enterprise's financial and organizational reputation which serves the interests of its beneficiaries (Chase, 2006).

- Logistics performance has a substantial positive link with the seven variables that influence logistics performance, according to this study, with a significance level of R square = 0.723 (F=101.224, P=0.001). This result supports hypothesis number seven (H7), which indicated that the various elements discussed in the research had a significant positive effect on logistics performance. As a result, all the seven hypotheses are accepted.
- Although the methods of reasoning used in the preceding research differed from those used in this study, the primary results of the preceding studies were consistent with the study's findings. Even though each element was provided separately for discussion purposes, all of the above-mentioned studies were conducted on multiple factors. Each study's result was based on the individual service dimension effect and multiple factor effects on logistics performance. Different variables contributed to the variance in logistics performance, according to the demonstrated studies. As previously said, each aspect played a good role. As a result, several investigations in various industries corroborated the findings of this study (G.A Shekari et al, 2012, Ryan, 2008, Rose, 2010, Rivas et al, 2011, Nuray, 2010).
- **Hypothesis 1;** states that the system service reliability has positive significant effect on the logistics performance **is confirmed**. As per the finding of this study, the service reliability has a positive and significant effect on logistics performance with (β=0.154; P<.05). The Beta Coefficient result of 0.154 signifies that for a 1-unit change in the reliability, the logistics performance will be changed by 0.154 units. The results demonstrated that reliability strongly influences logistics performance. This suggests that reliability plays a significant role in logistics performance.
- As stated by Gronroos (1984) the reliability represents the evaluation of service quality that can be clearly attributed to the service provider as a system rather than individuals within the system. It consists of a combination of items that are related to both functional and technical performance at an organizational level. The functional quality attribute includes reliability,

responsiveness, assurance, empathy and tangibility. The technical quality attributes incorporate the technical infrastructures and platforms of the enterprise's platforms whereas, the company image dimension involves the perceived values of customers towards the company image. Thus, based on the results obtained, the variables reliability, responsiveness, assurance, empathy, tangibility, technical quality and company image are important for the logistics performance of the enterprise.

- **Hypothesis 2** is confirmed, stating that responsiveness has a positive significant effect on logistics performance. According to this study's findings, responsiveness has a favorable and significant effect on logistics performance (β =0.168; P<.05). The Beta Coefficient of 0.168 indicates that a one-unit change in behavioural service quality will result in a 0.168-unit change in logistics performance. This finding demonstrates that employees' traits like as keeping customers informed to trace consignment, helpfulness and readiness to respond to customers requests are significant to the customers and that will in turn increases the logistics performance of the enterprise.
- **Hypothesis 3** is confirmed, stating that the assurance has a positive significant effect on logistics performance. According to this study's findings, assurance has a positive and significant effect on logistics performance (β =0.107; P<.05). The Beta Coefficient of 0.107 indicates that a one-unit change in assurance will result in a 0.107-unit change in logistics performance.
- **Hypothesis 4** is confirmed, stating that empathy has a positive significant impact on logistics performance. This study discovered that empathy has a positive and significant impact on logistics performance (β =0.258; P<.05). The Beta Coefficient of 0.258 indicates that a one-unit change in empathy will result in a 0.258-unit change in logistics performance. This variable has the greatest impact on logistics performance compared to the others. This result demonstrates that when the service provision is reliable, customers perceive improvement in the overall logistics performance.
- **Hypothesis 5** is confirmed, stating that tangibility has a positive significant impact on logistics performance. This study discovered that tangibility has a positive and significant impact on logistics performance (β =0.136; P<.05). The Beta Coefficient of 0.136 indicates that a one-unit change in tangibility will result in a 0.136-unit change in logistics

performance. This variable has the second highest impact on logistics performance compared to the others.

- **Hypothesis 6** is confirmed, stating that technical quality has a positive significant impact on logistics performance. This study discovered that technical quality has a positive and significant impact on logistics performance (β =0.129; P<.05). The Beta Coefficient of 0.129 indicates that a one-unit change in technical quality will result in a 0.129-unit change in logistics performance.
- **Hypothesis 7** is confirmed, stating that company image has a positive significant impact on logistics performance. This study discovered that company image has a positive and significant impact on logistics performance (β =0.042; P<.05). The Beta Coefficient of 0.042 indicates that a one-unit change in company image will result in a 0.042-unit change in logistics performance. This variable has the least impact on logistics performance compared to the others. As a result, the study's findings show that customers are believe that the enterprise's performance increases better when the other six dimensions are done properly than having a strong company image.

TABLE 4.10 Summary of Status/ Decision of Hypotheses

Code	Hypothesis	Status
H_1	*Service reliability has significant and positive effect on logistics*	*Supported*
H_2	*Service responsiveness has significant and positive effect on logistics*	*Supported*
H_3	*Service assurance has significant and positive effect on logistics*	*Supported*
H_4	*Service empathy has significant and positive effect on logistics*	*Supported*
H_5	*Service tangibility has significant and positive effect on logistics*	*Supported*
H_6	*Technical quality aspect of the service dimension has significant and positive effect on logistics performance.*	*Supported*
H_7	*Company image has significant and positive effect on logistics performance.*	*Supported*

CHAPTER FIVE

5. SUMMARY, CONCLUSION, AND RECOMMENDATION

This chapter comprises four sections. The first section describes the summary of the major findings of the study, the second section deals with the conclusions and the third section reveals the recommendations for the findings of the study. The end section highlights the directions for further studies.

5.1. Summary of Major Findings

Based on the data collected from customers of ESLSE that are importers of various merchandizing goods and located in Addis Ababa, the analysis made the following important summary points were found.

- Out of the total sampled respondents more than 86% had a BA/ BSc or higher educational background while the remaining.
- 47.3% worked at operational level, followed by 33% at a supervisory level. Department heads and senior executives accounted for 13.3% and 6.5% of responses
- The freight mode of the respondents primarily dealt with is dominated by multimodal and maritime services that accounted for 50.9% and 44.1% respectively, the remaining road and rail services accounted 5%.
- Business direction that the respondents primarily dealt with is dominated by import only which accounted 67.4% followed by import and export that accounted 32.6%
- 43% of respondents primarily operated in China, the middle east and the rest of Asia.
- The results of the findings revealed that *logistics performance* had positive and significant relationship with *empathy* (R=0.670), *tangibility* (R=0.640**) and *technical quality* (R=0.628**) at P<0.01.
- Whereas, correlation test between logistics performance and company image showed positive weak relationship (R=0.375) at P<0.01.

- The model summary results showed that, a linear combination of all the independent variables considered under the study predict **(R^2=0.723),** of the variance in the dependent

variable logistics performance. Indicating 72.3% of the variation in the logistics performance is accounted by the seven variables. The ANOVA test result showed that, the value of **R** and $\mathbf{R^2}$ obtained under the model summary part was statistically significant at **(F=101.224), (P<0.001).**

- The standardized beta coefficient of each independent variable showed, (**reliability = 0.154, responsiveness = 0.168, assurance = 0.147, empathy = 0.347, tangibility = 0.185, technical quality = 0.169 and company image** = **0.075**). The results show that the logistics performance changes by the indicated amount as a result of one standard deviation change of each predicting variable.

5.2. Conclusions

The performance or success of logistics is a major concern for the overall economy of nations since the entire supply chain plays a significant role to the country's potential market. Controlling logistics performance effectively reduces operational costs, enhances functional improvement of the service sector, improves the technical qualities of the enterprise and builds the company image which will in turn improves Ethiopia's global logistics performance index. Functional logistics efficiency (including inbound and outbound logistics) is a strategic problem that improves a company's fundamental capability. This study has, thus, tried to investigate the effect of different logistics service dimensions on the logistics performance towards the logistics sector more specifically in ESLSE.

The study considered seven variables related to various dimensions of the service variables that are directly or indirectly related to logistics performance namely, reliability, responsiveness, assurance, empathy, tangibility, technical quality and company image as the independent variables based on Gronroos (2001) service quality model and witnessed their impact on the dependent variable logistics performance. When compared to the other functional service quality dimensions, the empathy had relatively the highest positive and significant effect on logistic performances. Instilling confidence on customers regarding logistic service handling, providing flexible solution for customer complaints, staff immediate and prompt responsiveness for queries of customers and in time delivery influence the logistic performances of the importers. This finding is in support with Parasuraman (2000). In his study, he explained that customers must believe the entity delivering services prioritizes them. Caring, paying personal attention, and giving services to consumers are the ability to transmit the

feeling that the consumer is unique and special. Such quality logistic service model aspects have employed security and credibility for customers which leads to building positive company image results in retaining customers for longer period.

Similarly, next to empathy of the employees, tangibility dimension of ESLSE functional service quality had relatively higher positive and statistically significant effect on logistic performance of the importers in Addis Ababa. This result is also inline with Sharmin (2000) whose findings regarded tangibles to be a unique factor in terms of modern equipment, and sufficient/ efficient information communication facility, attractive office facilities availability along with employees neat and professional appearance influence the logistic performances of importers.

This finding also demonstrated assurance had positive and significant effect on logistic performance of importers in Addis Ababa. Employees' traits like as keeping customers informed to trace consignment, helpfulness and readiness to respond to customers requests were significant factors that affected the customers and that in turn increases the logistics performance of the enterprise. It is supported by Gronroos (1984) who studied the effect of service quality on customer satisfaction in the case of Scandinavian countries. He found out that employees who instill confidence on customers, make customers feel safe for delivery of consignments, consistently courteous and qualified maritime and logistics service provision significantly impacted performances of business companies.

However, reliability and company image were found to be the least factors that affect the logistics performance of importers in Addis Ababa. According to Sharmin (2000), company image of a monopolized company had insignificant effect on customer satisfaction as well as their performances. This is evidenced that customers would have no choice access alternative service. Regarding reliability, documentation of every process in ESLSE assured the reliability of their logistic services. It can be taken as confirmation that the integration of technical quality of the company in terms of electronically based and on-line documentation and declaration facilities, and availability of public platforms for sharing trade and logistics information and the online transaction platform with minimal errors had influenced logistic performance of the importers who utilized ESCSE in Addis Ababa.

It can be concluded that the enterprise still needs to go extra miles to improve the reliability and company image dimensions by addressing excellent company reputations, excelled service delivery, instilling confidence to the customers and showing consistent curiosity to customers. It helps in the formation of solid customer-based mutual business relationships which serve as the foundation for a stable and lucrative structure. Customers can be used as a weapon by spreading positive word of mouth to their business partners in other at the heart of the company's entire success.

5.3. Recommendations

The recommendations are made based on the drawbacks observed and in a way that answers the major research questions and with an intention to meet the objective of the study. The recommendations are highlighted as follows: -

- Empathy had the highest effect on logistic performance of importers. Competence and courteousness of the staffs affected importer's performance I Addis Ababa. Investment on the enhancement of staff's competency would improve the logistic performance of the customers. This can be achieved through employee's training and capacity building programs which has to be implemented based on the actual need assessment.
- Tangibility or physical equipment of the company had also significant effect on the performance of the importers who utilized ESLSE service. Incorporating or adapting different state-of-the-art technologies to facilitate the company's performance would bring substantial improvement in logistic performance of the companies. This can be achieved through implementing modern computers with large executive capacity to integrate and facilitate prompt provision of quality information.
- To increase service quality reliability, ESLSE should define key performance indicators that will allow it to see if it is delivering the service on time as promised and take corrective action when actual performance deviates from the standard.
- Internal and external influences, as well as controllable and uncontrolled ones, may affect logistics performance. Such factors may have an impact on enhancing quality of logistics services by enabling importers to trace and track when cargo is at the port of loading while loading the cargo, at sea while discharging the cargo at the ports, or cargo storage area while clearing the cargo at customs, during inland transportation to the place of delivery, or after it reaches its final destination in Ethiopia. As a result, it is necessary to investigate the entire

flow of the multimodal operation process in order to reduce the likelihood of factors affecting the reliability of its services.

- The researcher also suggests that, in order to improve the reliability of the sailing schedule, ESLSE should be able to have a backup plan in place, such as loading cargo onto other shipping lines vessels with whom the company has a space (slot) hire agreement, or informing customers in advance if the sailing schedule changes.
- In addition to the aforementioned, the company should implement a real-time customer relationship management software to successfully manage traceability and instill confidence in customers.
- The company should implement a modern real-time cargo tracking and tracing system that can be accessible simply over the internet or via a paid/non-paid SMS (short messaging service), which is becoming increasingly common in Ethiopia by improving the technical quality aspect of the service dimension and it should create a platform which can enable its customers to print whatever cargo document they require without being present at the enterprise's premises to be responsive enough to customers enquiries.
- Furthermore, ESLSE should consolidate its customer contact points into a single window to eliminate the hassle that customers face when they must travel from one location to another and the enterprise has to review its organizational structure to eliminate less value adding positions that will negatively affect the performance.
- ESLSE shall collaborate with successful shipping and logistics service providers and ports in different areas of the world to study the world trade trend and provide adequate sailing frequency in order to build the company image, enhance the service reliability and responsiveness which will in turn the logistical performance.
- Further research is required on evaluating effect of logistic service delivery on performance on importers mediated by customer satisfaction in a monopolized service company.

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APPENDICES

Appendix – A Survey Questionnaire

ST. MARY UNIVERSITY

SCHOOL OF GRADUATE STUDIES

Business Faculty

Department of Marketing Management

Dear respondents, this questionnaire is prepared by graduate level student of St. Mary's university in the field of Marketing Management. It is prepared to assess the effect of logistics practices on international logistics performance index in the case of Ethiopian Logistics and Shipping Services Enterprise and to collect data which can assist in conducting the research.

The validity of your response has high contribution for the success of the research. Hence, I kindly would like to ask your true and honest response to your best knowledge. Please take a moment of your most valued time to the success of the research because your response will affect decisions related with the subject matter and actions to be taken by concerned body in future reference of the research. The response that you provide for this research is strictly confidential and only for academic purpose.

Thank you in advance for your understanding!!

Part I: General Information

Please put (√) mark on your choice of answer

1. Your Highest Educational Qualification

Less than Grade 10 ❍ Grade 10 completed ❍

Grade 12 completed	❍	Certificate	❍
College Diploma	❍	BA/BSc Degree	❍
MA/ MSc Degree or above	❍		

2. Your Position in your organization (choose one)

Senior Executive	❍	Department Head	❍
Supervisory Level	❍	Operations	❍
Other	❍		

3. Number of employees in your organization

1 to 9	❍	10 to 49	❍
50 to 99	❍	100 to 249	❍
More than 250	❍		

4. The freight mode you typically deal with in your work (choose one)

Maritime	❍	Road	❍
Rail	❍	Air Transport	❍
Express Delivery	❍	Multimodal	❍
Other	❍	please specify _____	

5. Type of business direction you are primarily concerned with (choose one)

Export	❍	Import	❍
Import and Export	❍	Domestic	❍
International Transit	❍		

6. Mainline of your work (choose one)

Full Container/ Trailer Loads	❍	Less than Full Container/ Trailer Loads	❍
Bulk/ Break Bulk Cargo	❍	Customer tailored Logistics Solutions	❍
Warehousing and Distribution	❍	Courier Services	❍

7. Which country do you primarily deal with?

_____

Part II: Logistics Practices of ESLSE

The questions hereunder are to evaluate how ESLSE is practicing its logistics activities and how does it impact the LPI of the country. Please circle the appropriate corresponding number corresponds to the extent to which you agree or disagree with each of the following questions based on your working experience in this organization. The item scales are Likert type scales which are indicated as: -

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

No.	Service Quality Dimensions	1	2	3	4	5
Reliability						
1	Dependability in handling customers' service is performed	❍	❍	❍	❍	❍
2	Provides flexible solution for customer complaints	❍	❍	❍	❍	❍
3	Staff are responsive to queries of customers immediately	❍	❍	❍	❍	❍
4	All shipments are delivered on scheduled time	❍	❍	❍	❍	❍
Responsiveness						
5	Keep customers informed to trace consignments	❍	❍	❍	❍	❍
6	The staff are helpful	❍	❍	❍	❍	❍
7	Employees are ready to respond to customers' requests	❍	❍	❍	❍	❍
Assurance						
8	The employees instil confidence on customers	❍	❍	❍	❍	❍
9	The employees make customers feel safe for delivery of	❍	❍	❍	❍	❍

	consignments					
10	The employees are consistently courteous	❍	❍	❍	❍	❍
11	The enterprise has qualified maritime and logistics service provision	❍	❍	❍	❍	❍

Empathy

12	The employees are polite and give individual attention to customers	❍	❍	❍	❍	❍
13	The employees understand the needs of its customers	❍	❍	❍	❍	❍
14	Employees are available during working hours at all times	❍	❍	❍	❍	❍
15	Provides customized services as per the demand of the customer	❍	❍	❍	❍	❍

Tangibility

16	Modern equipment are available to provide service	❍	❍	❍	❍	❍
17	Sufficient information communication facility is available	❍	❍	❍	❍	❍
18	The office facilities are attractive	❍	❍	❍	❍	❍
19	The employees have a neat and professional appearance	❍	❍	❍	❍	❍

Technical Quality

20	Electroniclly based and on-line documentation and declaration facilities are available	❍	❍	❍	❍	❍
21	Public platforms for sharing trade and logistics information are available	❍	❍	❍	❍	❍
22	The online transaction platform shows as such noticeble errors	❍	❍	❍	❍	❍

Image

23	The enterprise is reliable	❍	❍	❍	❍	❍
24	It provides excellent service to customers	❍	❍	❍	❍	❍
25	It makes a lot of contribution to the society	❍	❍	❍	❍	❍
26	The enterprise has a good reputation	❍	❍	❍	❍	❍
27	It is sincere to its customers	❍	❍	❍	❍	❍

Logistics Performance

28	My choice of the enterprise is a wise decision	❍	❍	❍	❍	❍
29	I am satisfied with the enterprise employees' professional competence.	❍	❍	❍	❍	❍
30	I am satisfied with the quick service of the enterprise.	❍	❍	❍	❍	❍
31	I am satisfied with respectful behaviour of the enterprise staff.	❍	❍	❍	❍	❍

32	I am happy with the overall satisfaction towards enterprise's service quality.	❍	❍	❍	❍	❍
33	Process of documentation and service process is simple and predictable	❍	❍	❍	❍	❍
34	It is simple to track locations of consignments	❍	❍	❍	❍	❍