



**Investigating The Third-Party Logistics Provider's Performance**

**(Case of Green International Logistics Service P.L.C.)**

**By**

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**A research project submitted in partial fulfillment for the requirements of  
Masters in Executive Business Administration**

**Advisor**

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## Declaration

I hereby declare that this thesis entitled “*Investigating the Third-Party Logistics Provider’s Performance*”, has been carried out by me under the guidance and supervision of Dr. Meskerem Mitiku. The thesis is original and has not been submitted for the award of any degree or diploma to any university or institution.

Researcher’s Name

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Signature

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**COLLEGE OF SOCIAL SCIENCES**  
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**DEPARTMENT OF MANAGEMENT**

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## Table of Contents

Acknowledgment .....	i
Table of Contents .....	ii
List of Abbreviations .....	v
List of Tables .....	vi
List of Figures .....	vii
Abstract .....	viii
CHAPTER ONE .....	1
INTRODUCTION .....	1
1.1. Background of the study .....	1
1.2. Green International Logistics Service Plc (GILS) Background .....	3
1.3. Statement of the problem .....	4
1.4. Research Questions .....	6
1.5. Objectives of the Study .....	6
1.5.1. General Objectives .....	6
1.5.2. Specific Objectives .....	6
1.6. Scope of the Study .....	6
1.7. Limitations of the Study .....	7
1.8. Significance of the Study .....	7
1.9. Organization of the Study .....	8
1.10. Definition of Terms or Concepts .....	8
CHAPTER TWO .....	10
LITERATURE REVIEW .....	10
2.1. Theoretical literature review .....	10
2.1.1. Overview of Logistics and Logistics Performance .....	10
2.1.2. Importance of Logistics .....	11
2.1.3. Third-Party Logistics (3PL) .....	12
2.2. Empirical Study .....	23
2.3. Conceptual Framework .....	25

CHAPTER THREE .....	26
RESEARCH DESIGN AND METHODOLOGY .....	26
3.1. Introduction .....	26
3.2. Research Design.....	26
3.3. Research approach.....	26
3.4. Population and Sampling .....	27
3.5. Data Sources and Methods of Data Collection .....	28
3.6. Data Analysis Method.....	29
3.7. Reliability.....	30
3.8. Ethical Consideration .....	31
CHAPTER FOUR.....	32
DATA ANALYSIS AND INTERPRETATION .....	32
4.1. Introduction .....	32
4.2. Characteristics of Respondents .....	32
4.3. Socio-demographic Characteristics.....	32
4.3.1. Age and Gender of Respondents .....	32
4.3.2. Educational levels of the respondents.....	33
4.3.3. Experience in Logistic and Supply Chain Industry.....	34
4.4. Descriptive Analysis .....	35
4.4.1. 3PL Performance Influence on Supply chain Efficiency .....	35
4.4.1.1. Organizational Effectiveness Influences on Supply Chain Efficiency .....	37
4.4.2. GILS Performance Challenges .....	40
4.4.2.1.2. Difficulty to Provide Information or report.....	42
4.4.2.2. Infrastructural Performance Challenges.....	45
4.4.3. The Effect of Challenges on Performance of GILS .....	46
4.4.3.1. Effect on Service Quality of GILS.....	46
4.4.3.2. Effect on Organizational Effectiveness Of GILS.....	47
4.4.3.3. Effect on relationship management of GILS.....	47
4.5. Open-end Questions and Interview Result Analysis.....	48
4.5.1. Other Indicators Affecting Supply Chain Efficiency and Competitive Advantage Gained.....	48

4.5.2. Challenges and Effect on GILS Performance .....	49
4.5.3. Interview result analysis.....	49
4.6. Overall discussion of results .....	51
CHAPTER FIVE .....	54
SUMMARY, CONCLUSION, AND RECOMMENDATION .....	54
5.1. Introduction .....	54
5.2. Summary of the Findings .....	54
5.3. Conclusion.....	55
5.4. Recommendations .....	56
5.5. Limitations of the Study and Direction for Future Research .....	56
References.....	58
APPENDIX I: .....	65
APPENDIX II: .....	69
Annex III:.....	74
Annex IV: .....	75
Annex IV: .....	76
Annex V: .....	76

## List of Abbreviations

<b>I.T.:</b>	Information Technology
<b>SPSS:</b>	Statistical Package for Social Science
<b>S.C.R.:</b>	Supplier and Customer Relationship
<b>S.C.M.:</b>	Supply chain management
<b>S.C:</b>	Supply Chain
<b>FFLI:</b>	Freight Forwarding and Logistics Industry
<b>E.I.C.:</b>	Ethiopian Investment Commission
<b>3PL:</b>	Third-Party Logistics
<b>GILS:</b>	Green international Logistics Service P.L.C.
<b>L.S.P.s:</b>	Logistics service providers
<b>SCLI:</b>	Supply chain and logistics industry
<b>SCE:</b>	Supply chain efficiency

## List of Tables

Table 3.1 Reliability test Statistics.....	30
Table 4.1: Age and Gender of Respondents .....	33
Table 4.2: The Effect of Service Quality on Supply Chain Efficiency .....	37
Table 4.3 Organizational efficiency on Supply Chain Efficiency .....	38
Table 4.4 Relationship Management on Supply Chain Efficiency.....	39
Table 4.5 Performance indicator effect on Supply chain efficiency.....	40
Table 4.6: The Difficulty of Getting New talents Source: SPSS Version 25.0 .....	41
Table 4.7: Difficulty of Providing Information or Report. Source: SPSS Version 25.0 .....	43
Table 4.8: Other Performance Challenge Source: SPSS Version 25.0 .....	44
Table 4.9: Effect on Service Quality: SPSS Version 25.0 .....	46
Table 4.10: Effect on Organizational effectiveness Source: SPSS Version 25.0 .....	47
Table 4.11 the Effect on Relationship Management.....	48

## **List of Figures**

Figure 4.1: Level of Education .....	34
Figure 4.2: Experience of the respondent in the logistics and supply chain industry.....	35
Figure 4.3: Infrastructural Challenges of performance challenges .....	45

## **Abstract**

*The purpose of this research is to investigate the third-party logistics service provider performance. It aims to assess third-party logistics service provider performance impact on the supply chain efficiency of outsourcing firm and analyze the impact the challenges faced has on performance indicators. The study employed a descriptive research design using quantitative and qualitative data. Data was collected from customers and employees. The questionnaire and interview were the main instruments of data collection. The descriptive statistics method was employed to analyze the data using spss Version 25.0 . The research concludes that Service quality, Organizational effectiveness, and relationship management as having a positive influence on supply chain efficiency with a high percentage of the participant agreeing that service quality is positively impacting outsourcing firm supply chain efficiency among the three performance indicators. Moreover, the difficulty of getting talent and providing information was the major challenge faced and showed these challenges affect service quality. Based on the finding of the research, reviewing organizational effectiveness and relationship management strategy for better impact on supply chain efficiency of the outsourcing firm, assessing challenges impacting organization effectiveness and relationship management, evolving the third-party logistics service practice to four-party logistics service were the major recommendations provided.*

**Keywords:** Performance challenge, performance indicators, and supply chain efficiency

# CHAPTER ONE

## INTRODUCTION

### 1.1. Background of the study

Imagine a world without logistics, where no goods or raw materials move from one place to another. It will be complicated and almost impossible to produce an output on time and deliver an item ordered by a customer in a different part of the world. Regardless of having a sophisticated technology that produces a good that is as per the client's demand, unless logistics is there to deliver the goods to customers, the effort and investment will be meaningless. Therefore, products or services have little or no value unless they are in possession of customers when (time) and where (place) they wish to consume them (Ballou, 2013). The logistics value is especially needed for a country like Ethiopia, as most consumer goods and raw materials are imported from abroad using foreign currency. This effect has a highly noticeable impact on the manufacturer, final user, and the general economy, manifested by expensive product prices to the final user, reductions of the profit margin of firms involved in manufacturing, and pressure on the country's foreign currency.

Today Ethiopia is at the age of manufacturing transformation by introducing incentives such as tax holidays and subsidized loans to boost investment. This incentive has attracted a lot of investors to the country, which enabled manufacturing different goods locally, branding them as "made in Ethiopia" and exported throughout the world. But as per the investment authority report, this effort would have shown even better results and efficiency if it wasn't for the bureaucratic and constrained logistics performance. (Aaron, 2018)

The World Bank study of 2016, "Country Score Card: Ethiopia " indicated that the LPI (Logistics Performance Index) of Ethiopia is 2.38, ranking 126th, which shows the logistics performance is below average. What makes the Ethiopian logistics performance index staggering is that the performance index keeps fluctuating up and down throughout the years, showing little improvement. One of Ethiopia's low-performance indicators is logistics competency and timeliness (world bank. org, 2016). Thus, to make the age of transformation reach its full capacity, perfecting the logistics industry to create maximum value expected to the

country and the business industry is a crucial area of focus and a highly competitive advantage source.

As an essential factor, a lot of Researchers studied the effect of third-party logistics providers from a different angle showing findings like the rationale for organizations outsourcing logistics services to 3PL providers are cutting down costs, operational flexibility, saving management time so that they could focus on core activities and spreading logistics/supply chain risks (Mutenyo & Mose, 2020). In the third-party logistics arrangement, there are positive effects to achieve in terms of logistics performance and project performance, but the main challenge to achieve these effects is to include all supply chain actors to reach a higher level of SCM maturity (Mats & Martin, 2020), 3PL service providers' performance dimensions like cost performance, operational performance, and relationship performance have an almost equal and positive impact on customer loyalty. (Buket & Arzum, 2017) and research on Kenya East Africa breweries limited indicated that the services provided by third-party logistics providers had improved supplier's performance (Katana & Muangi, 2017). In the practical case of Ethiopia, different research was conducted with finding like, the development of logistics service providers, transistors, shipping agents, and brokers needs to be encouraged in technical skills, human resources, and finance because they add so much efficiency to goods flow at lower costs. (Fekadu, 2013), Ethiopian Airlines as one of the logistic service providers was having logistics performances below average and it has a great impact on its over organizational profitability, reliability, flexibility, and responsiveness performance( Getachew, 2020), customs clearance process is impacting the import good logistics efficiency (Endashaw, 2020), there is logistics inefficiency, late delivery and no well-developed tools to check customer satisfaction and there is a positive relationship between logistics performance and organizational performance( Yohannes, 2017)...etc. But little research has been conducted that investigates one of the major parties that affect the logistics industry performance, which is third-party logistics service providers. That is, The third-party logistics provider's performance from its ability to create supply chain efficiency to outsourcing firm context and how challenges are impacting its performance has not been explored.

Therefore, there exists a gap in analyzing logistics performance from a 3PL perspective. But why focus on third-party providers? In recent years, there has been a surge of academic interest and publications in third-party logistics (3pl). This interest can partly be explained by the growing trend of outsourcing logistics activities in various industrial sectors (Nitin Kumar, Atul Kumar; and Anoop Kumar,2015).

Furthermore, the research endeavors are limited to Green international Logistics Services P.L.C. This study undertakes in the area that explains third-party logistics provider performance by investigating the influence it creates on outsourcing firms from a supply chain efficiency context. It will also asses challenges impacting third-party logistics providers' performance. Other academicians can use these research findings as a point of reference for advanced study to further research this industry with the possibility of designing a strategy that will allow 3PLs to perform more efficiently.

## **1.2. Green International Logistics Service Plc (GILS) Background**

Green International Logistic Services plc (GILS) is a family-owned and run premiere logistics firm operating out of Addis Ababa that was established in 2005 G.C. The firm is engaged in packing, moving, customs clearing, freight forwarding, transporting, storing, and heavy lifting of all types of household and commercial goods to and from any part of the world. With a large network of valuable partners, state-of-the-art packing materials, processes, and a dynamic workforce up to speed on the latest in the logistics sector, Green International Logistics Services has built itself up as one of the most trusted firms to handle goods. Ato Befekadu Thilahun, who used to work as general manager at Assab port equipped with ample experience together with his partners established Packtra logistics service provider and was one of the early established private logistics service firms in Ethiopia. After working for a few years in a joint venture with his partners Ato Befekadu Telahun decided that it was time to move on and started Green Logistics service P.L.C. a company that was solely owned. GILS has a 100 total staff, a head office at Bole medhanialem, three branch offices, and agents in most of the city where Ethiopia customs authority is operational. GILS is also a representative agent of the Messina shipping line and a member of various logistics associations like IATA, FIAT, ETC.

Using different IATA member companies, it provides the import, as well as export service from the door, get of shipper to the destination of the receiver.

### **1.3. Statement of the problem**

The Ethiopian logistics system is characterized by poor logistics practices and lack of coordination of goods transport, low level of development of logistics infrastructure, and inadequate fleets of freight vehicles in number and age, damage, and quality deterioration of goods while handling, transporting, and storage (Fekadu,2013). On top of this, Analyzing and assessing logistics practices will help discern important issues such as emerging trends and areas of concern, which will help in taking remedial measures (Srivastava, 2006 as cited in Fekadu, 2013). Furthermore, research also indicated one of the variables which are highly determining international trade in Ethiopia is the transport and logistics-related factors (Alekaw, 2016). In addition, the world bank study, 2017, implies the path to prosperity lies in reducing the costs of trade well beyond tariffs. Therefore, the success of the large-scale investments will depend on the connectivity of these industrial sites to different nodes along trade corridors, on the capacity of the G.O.E. and private operators to reduce trade logistics costs along the logistics chain. As well as on the emergence of a logistics sector capable of offering the diverse and high-quality services that firms in Ethiopia require if they are to integrate successfully into global value chains. (World Bank, 2017).

It is a globalization era where cross-border trading is inevitable and key for the country's economy. The above research and articles have indicated the performance of the logistics industry plays a key role in perfecting the country's trade as well as enabling the country to achieve the goal of globalization and most of the components included as a measurement of logistics performance of a country are services provided by a 3PL provider. Furthermore, it also indicated, it is important to research the logistics industry to continuously update the emerging trends. On top of this, in research by Fekadu 2013 and Alekew, 2016, the focus was on the transport part of logistics and the supply chain of firms respectively, and have not given a deeper emphasis on the third-party logistics providers performance indicators and challenges affecting its performance.

There are many definitions and understanding of logistics performance and its measurement. But this study focuses on logistics performance from a supply chain context. Logistics performance can therefore discern two complementary perspectives: one rests on the efficient execution of logistics operations, and the other concerns productivity or return on assets, to achieve a specific level of customer satisfaction (Duong and Paché 2016 as cited in Mohamed,2021). The concept of logistics performance consequently refers both to customer value, which increases when logistics requirements are met under the best conditions of costs, service quality, and lead time, and the presence of indicators that allow one to quantify and measure the performance of logistics operations (Jüttner and Maklan 2011, Forslund, 2012 as cited in Mohamed,2021).

Finding of research done on “the Impact of Logistics Performance on Organizational Performance in a Supply Chain Context” indicate that logistics performance is positively impacted by supply chain management strategy. Thus, this research analyzed the 3PL provider performance from its ability to create supply chain efficiency to outsourcing firm context and further extended the study to analyze the performance challenges of third-party logistics providers. The study focuses on supply chain efficiency because, 3PL providers give service that is part of the supply chain of a firm but outsourced to achieve efficiency (Jabir & Fouad,2018). Second, logistics performance means achieving efficiency of supply chains in increasing the capabilities of firms to attain domestic and international trade opportunities. (Bilgin, 2020). Thus, studying this research help to give an overall picture of the third-party logistics provider performance focusing on the impact created on outsourcing firm supply chain efficiency and extending to identify 3PL challenges impacting performance.

As one of the prominent third-party logistics providers that started the first private freight forwarding firm and later own grown to the third-party logistics provider, the research would be undertaken on Green international Logistics service P.L.C. It would have been ideal to gather information from the different 3PL providers but due to time and resource limitations the research endeavors are limited to Green international Logistics Services P.L.C

Therefore, researching to understand which performance indicator is reflecting on outsourcing firm ability to achieve supply chain efficiency will show where improvement needs to be done

to make sure the major element of logistics performance is performing efficiently. Furthermore, studying also the current challenge faced by 3PL Providers and how this is affecting their performance will create a clear insight on which challenges to tackle to improve 3PL performance.

## **1.4. Research Questions**

Based on the research background and motivation, this research attempts to address the following research questions:

RQ1: How does 3PL providers' performance influence the outsourcing firms' supply chain efficiency.

RQ2: How does challenges faced affect 3PL service providing firm performance.

## **1.5. Objectives of the Study**

### **1.5.1. General Objectives**

This study's main objective is to investigate third-party logistics provider performance in the case of green International Logistics service P.L.C (GILS).

### **1.5.2. Specific Objectives**

The specific objectives of this research are to: -

- To assess how the performance of the logistics provider impacts the logistics industry through its effect on the supply chain efficiency of outsourcing firms.
- To assess the challenges facing the industry.
- To assess how the challenge influences the performance of the company.

## **1.6. Scope of the Study**

This study is focused on examining only one company's activities and the impact it creates on outsourcing firms involved in a different industry. Due to the time constraints, limited available work hours, and the researcher's limited funding, it was meaningful to focus only on one

company. Therefore, the scope of this study is to assess the performance of 3PL providers in the case of green international logistics service P.L.C.

This study's subject scope also focused on the internal and external factors affecting the firms' performance, specifically to achieve its goal of creating operational efficiency for the supply chain partners, excluding its company goal. On top of this, the study area is the case company, i.e., Green international, located in Addis Ababa and the branch in which GILS Operates.

### **1.7. Limitations of the Study**

Since few studies are conducted to assess the performance of 3PL providers from the third-party logistics provider perspective, getting a ground point to base on and drive the analysis would be challenging. Besides, the study assessed the 3PL provider influence from the standpoint of the focal company (Green International Logistics Service P.L.C). Thus, it doesn't show the overall impact created by the parties involved in the industry. The Research is limited to Green International Logistics Service P.L.C located at Addis Ababa area and branch it operates only due to time and resource limitation.

Besides, despite the attempt to stabilize the various aspects of logistics/S.C.M. reality into models and methods, it still seems to be an ever-moving target where theoretical it has already reached 4PL which makes the driving of the favorable influence based on the concision short term.

### **1.8. Significance of the Study**

To sustain in this competitive market and globalized industry it is a must for firms to understand what is affecting their performance and how they are influencing the customer. Therefore, this research enhances the further understanding of the performance challenges faced by third-party logistics providers and how the service they provide is influencing their customer's supply chain efficiency. The logistics industry is a broad industry that involves many parties that need to work together to achieve one end goal. Thus, identifying the challenges and the performance influence of 3pls is not only affecting the firms that provide

the service but rather the customer, the supplier, and the country as they are all part of the supply chain. This study also provides information to other third-party logistics provider engaged in the industry and serve as a resource for other researchers in this area of study.

## **1.9. Organization of the Study**

The study is organized into five parts. The first part deal with the background, statement of the problem, basic research questions, objectives, significance, and scope of the study; the second part review both theoretical and empirical literature related to the study. The third part covers the research methodologies of the study including design of the research, source of data, data collection instruments, procedures of data collection, and methods of data analysis. The fourth part presents the results and discussions which summarize the results/findings of the study and interpret and/or discuss the findings. The final part is comprised of a summary of results, conclusions, and recommendations.

## **1.10. Definition of Terms or Concepts**

**Supply Chain (SC):** A group of related participating companies that add value to a stream of transformed inputs from their source of origin to the end products or services demanded by the designated end consumers (DeweiLu, 2011, p. 9).

**Logistics:** The process of strategically managing the procurement, movement, and storage of materials, parts, and finished inventory (and the related information flows) through the organization and its marketing channels so that current and future profitability is maximized by cost-effective fulfillment of orders (Christopher, 2011, p. 2).

**Supply Chain Management (SCM):** The management of upstream and downstream relationships with suppliers and customers to deliver superior customer value at less cost to the supply chain (Christopher, 2011, p. 3).

**Third-party logistics (3PL):** It refers to outsourcing a package of transport and logistics activities. The service provider often meets the manufacturer and the supplier (Aaron, 2018).

**Freight Forwarding service:** It means services of any kind relating to the carriage, consolidation, storage, handling, packing, or distribution of the goods as well as ancillary and advisory services in connection; in addition to that, including, but not limited to, customs and

fiscal matters, declaring the goods for official purposes, procuring insurance for the goods, and collecting or procuring payment or documents relating to the goods (Law Insider).

**Freight Forwarder:** A person or firm that arranges to pick up or deliver goods on instructions of a shipper or a consignee from or to a point by various necessary conveyances and common carriers (dictionary.com).

# **CHAPTER TWO**

## **LITERATURE REVIEW**

This chapter presents a literature review about the concept of Logistics, Third-party logistics providers' performance, and outsourcing firms' supply chain efficiency. The logistics part emphasizes conceptualizing third-party logistics provider challenge and performance indicators. While the logistics performance focuses on conceptualizing supply chain efficiency and other associated concepts. At the end of the chapter, it shows the findings of another research and finally develops the conceptual framework.

### **2.1. Theoretical literature review**

#### **2.1.1. Overview of Logistics and Logistics Performance**

Historically, the word logistic was derived from the term “logistician,” which was the role of the chef de l’ogis; he was responsible for finding accommodation for the troops during the time of Napoleon Bonaparte (Van Creveld, 2004). Logistics as an activity, however, has now evolved and in the business world as an indication of the flow of products or services from the point of origin to the point of consumption. As a formal definition, logistics has been defined from a military point of view and a business point of view by different scholars in the field. Most of the definitions involve the movement of items from one place to other to achieve different objectives. The following can be mentioned as the major definitions of logistics:

Logistics is the process of strategically managing the procurement, movement, and storage of materials, parts, and finished inventory (and the related information flows) through the organization and its marketing channels in such a way that current and future profitability are maximized through cost-effective fulfillment of orders (Christopher, 2011).

Logistics is the art of well-ordering the functioning of an army, of well combining the order of troops in columns, the times of their departure, their itinerary, the means of communication necessary to assure their arrival at a named point (Jomini, 1830).

Logistics is having the right item in the right quantity at the right time at the right place for the right price in the right condition to the right customer (Susan, 2010).

The attraction of the logistics concept is that it looks at the material flow process as a complete system, from the initial need for materials to the delivery of a finished product or service to the customer. It attempts to provide the communication, coordination, and control needed to avoid the potential conflicts between the physical distribution and the materials management functions (Christopher, 2007). The next topic future entails the importance of logistics in this globalization era.

### **2.1.2. Importance of Logistics**

Logistics activities are considered trade intermediaries, as they constitute a vital link between the industries and their market and supply sources. They outline an integral element of a country's trade competitive strategy (Branch, 2000, p. 49). In addition, logistics plays an important role in facilitating the trade for industries and markets (Fisher, 2002, p. 7).

In the past, the goals of logistics were connected primarily to cost-effectiveness. Nowadays, besides cost-effectiveness, attention is paid also to fast lead times and developing customer service. As a result of costs, the price is still an important factor in competition, but in addition, companies want to shorten delivery times, increase the speed of distribution and reaction, make sure that the delivery arrives on time. Logistics is not just a "save money" action; it is an important part of a customer-oriented service strategy. (Sakki 2003 p.25: cited by Yohannes, 2017).

Gene technology, information technologies, and logistics are ranked among the most important strategic sectors of the 21st century. Particularly, the fact that production and distribution of goods and services are not satisfactory today has both contributed to the development of logistics within the SC by creating a value chain throughout the channel and introducing an aspect that supports regional development in the economic sense. Logistics today stands before us as the most important weapon of competitive advantage, and all investments made almost in all areas of logistics aid regional development on a microscale and national development on a

macro scale. In the context of economic impact, the effect of logistics on GDP is highly (Karayun et al., 2012)

Furthermore, a report indicated that logistic activities accelerate economic and productivity growth and decrease poverty. There is now overwhelming evidence that trade liberalization is associated with faster productivity growth among firms in developing countries. It is assumed that increased trade due to broad-based liberalization can, under the right circumstances, promote economic and social development through increased productivity and decreased poverty. In such a case, the logistics sector has a crucial role to play in the process (WTO & OECD, 2013).

Logistics is an important link in the SC, as it facilitates the movement of goods from suppliers to manufacturers and then to sellers or distributors and eventually to buyers. An SC is essentially a series of transactions. If logistics fail, the SC fails and transactions grind to a halt. A prime example: bare shelves in grocery store dairy aisles even as farmers dumped milk as SCs broke during the pandemic (Jenkins, 2020).

In the past decade, logistics firms have been faced with increasingly competitive pressure and increasingly discerning customers. These firms have been forced to restructure both internal and external relationships to respond flexibly, innovatively, and rapidly to shifting and splintering market demand. The rapid change and uncertain environment force firms to face the major challenge, that is, how to break the touch situation and capture their competitive advantage. (Wongpinunwatana; Tsenga, et al. 2011; Han, et al. 2017 cited by Muleta,2017). Resulting from this pressure the logistics service providing firms evolved to the most recent type of logistics service which is 3PL.

### **2.1.3. Third-Party Logistics (3PL)**

#### **2.1.3.1. Background History and Definition of Third-Party Logistics (3PL)**

The international 3PL market, largely dominated by US and European firms, has experienced distinct waves of entrants (Berglund et al., 1999) over the last two decades. The first wave

dates to the 1980s or even earlier, with the emergence of “traditional” logistics providers, whose competency centered on effective transportation or warehousing. The second wave dates from early 1990, when several network players, for instance, DHL, TNT, and FedEx, started their logistics activities. The third wave dates from the late 1990s when several players from areas of IT, management consultancy, and even financial services were working together with players from the first and second waves (Sohail et al., 2004).

More generally, a new age of capitalism has begun; it comprises massive logistics outsourcing by manufacturers and large retailers even though for many years, having direct control of logistical operations was considered as the key factor of a sustainable competitive advantage and entrusting them to LSPs would have been too risky (supplier chain drive, 2018)

Razzaque and Sheng (1998) defined outsourcing as multiple logistics services provided by a single vendor on a contractual basis. Outsourcing is becoming more important today. Due to economic and competitive pressures, different enterprises must pay attention to their core competencies and turn to third parties to undertake responsibility for other secondary corporate functions. Outsourcing can create profits by improving customer service levels, providing high added value to products, benefiting in exploiting new markets, and offering dedicated resources (Foster & Muller, 1990). Through outsourcing, companies can obtain a competitive advantage through cost reduction and increased responsiveness to market change (ukdiss.com, 2019).

The term “third-party logistics” actively began to appear in academic literature year 1989 (Maloni & Carter, 2006). The expression is associated with the practice of contracting out (outsourcing) some of the company’s logistics activities to third parties. Numerous other terms refer to the same phenomenon, such as logistics alliances, operation alliances in logistics, contract logistics, contract distribution, and logistics outsourcing (Atkacuna & Furlan, cited in Berglund et al., 1999; Selviaridis & Spring, 2007). One of the earlier 3PL definitions of functional character was Andersson and Sjöholm (1992) cited in Skjott-Larsen et al. (2003); the authors state that 3PL is a situation “where a third party takes responsibility for primary transport and warehousing activities, with related services of consolidation, order

administration, and simple assembly.” One comparatively simple 3PL provider’s definition by Coyle et al. (2003) is “an external supplier that performs all or part of a company’s logistics functions.”

### **2.1.3.2. Growth and Usage of 3PL**

Logistics shows an intense and diversified evolution that will not slow down in the coming years. The globalization of goods movements and transport and logistics networks, outsourcing of a wider range of services to third-account providers, digitalization of logistics management, automation of warehousing and vehicle driving, changes in manufacturing, trade, distribution, consumption patterns, and search for “green” mobility of goods are all key components of the “new logistics”. Freight transport, ever more deeply involved in an integrated logistics industry, will change considerably and will face huge growth and sustainability challenges. According to the International Transport Forum, growth in the world road and rail freight volumes to 2050 ranges from 230% to 420%, depending on the freight intensity of the future GNP growth (Savy, 2016).

As time goes by, the number of manufacturing and retailing firms which no longer want to manage their logistics by themselves has been increasing constantly. The reasons are:

- Global SC restructuring to improve operations coordination
- Fluctuations in the volumes and destinations of products to be dispatched
- The requirement of costs reduction and the demand for increased service quality in terms of flexibility
- The existence of short deadlines, high product customization, and adaption to market globalization

Furthermore, the growth of 3PL services is widely acknowledged and attributed to reasons such as the varying and distinct logistics needs of different companies (Fuller et al., 1993). Sheffi (1990) suggested that the primary reasons for the growth of 3PL services are the need for more professional and better-equipped logistics services and the cost savings gained. Other reasons for the growth of 3PL usage are the lack of competency required for the development

of key specialist skills within the organization (Bolumole, 2001), lack of technological expertise, and computerized systems that currently drive logistics operations (Bardi & Tracey, 1991).

Out of sheer necessity, logistics management has evolved from its traditional operational orientation to a strategic orientation (Kohn et al., 1990), driving the attainment of core corporate goals. As a result, most 3PL providers have become specialists through differentiation, and the scope of their services encompasses a variety of options ranging from limited services, for example, transportation, to broad activities, covering the full spectrum of SC and operating across international borders.

The growth in logistics outsourcing is typical of European firms and those who are highly more committed to logistics outsourcing, allocating a larger share of their overall logistics budget to outsourced services (Lieb et al., 1993). Similarly, studying the Australian situation, Dapiran et al. (1996) indicated that Australian firms are comparable with US firms in their usage of 3PL services, with more than one-fifth of the firms characterizing their commitment to 3PL as extensive and one-quarter of the firms allocating more than 50% of their total logistics budget to contract providers.

### **2.1.3.3. 3PL Performance Measurement**

Performance measurement has evolved ever since its emergence in the 1980s. Historically, when organizations were small and operations simple, the primary performance measurement was done based on the cash flow of the organization. From the late nineteenth century until the 1930s, theoretical and practical methods of management accounting were established, and standards were widely applied (Maskell, 1991 as cited by Ashan, 2013). Tatjana Samsonowa (2012) argues that all the different definitions she had to review, in the performance measurement literature, have one common characteristic; they all are related to two terms: effectiveness and efficiency; effectiveness as an indicator of the degree of goal attainment, and efficiency as an indicator of the resources that were consumed to reach the level of achievement. Performance is therefore principally specified through a multidimensional set of

criteria. The source of the performance is the actions of players in the business processes. (Ghalem, Okar, Chroqui & Semma, 2016). From a broader perspective, Fugate et al. (2010) defined logistics performance as the degree of efficiency, effectiveness, and differentiation associated with the accomplishment of logistics services (as cited by Ozoglu & Arzum, 2017). The performance measurement variables of 3PL service providers this study discussed are service quality, organizational effectiveness, and relationship management.

Service quality, which strongly correlates with customer satisfaction, is generally defined as the compatibility of a customer's experience of receiving a certain service with his or her prior expectations (Canciglieri Junior et al., 2019; Parasuraman et al., 1994, 1988 as cited by Asthana, 2013). This concept is the basis for the well-known service quality assessment framework "SERVQUAL". The original framework of SERVQUAL suggests that practitioners assess service quality using five dimensions: (i) tangible (service provider's physical equipment and facilities, personnel, and communication devices); (ii) responsiveness (service provider's willingness to help the customers and promptness); (iii) reliability (service provider's capability to provide reliable, accurate, and punctual services as promised to the customers); (iv) assurance (service provider's ability to attract customers' trust and confidence in their professional knowledge and mindset); and (v) empathy (service provider's understanding of customers' needs and difficulties, and the ability to treat them with empathetic attention (Mathong et al., 2020).

The other performance measurement variable is organizational effectiveness which is defined as the power to produce the desired result. Organizational effectiveness is discussed by Zheng et al. in combination with strategy and knowledge management, where they use the definition of the degree to which an organization realizes its goals (Wilson, Wnuk, Silvander, & Gorschek, 2018). According to Pinprayong and Siengthai (2012), Effectiveness oriented companies are concerned with output, sales, quality, creation of value-added, innovation, cost reduction. It measures the degree to which a business achieves its goals, or the way outputs interact with the economic and social environment. Hiva and Suar (2010) agree that superior performance is possible by transforming staff attitudes towards the organization from a lower

to a higher plane of maturity, therefore human capital management should be closely bonded with the concepts of effectiveness. According to Heilman and Kennedy – Philips (2011) organizational effectiveness helps to assess the progress towards mission fulfillment and goal achievement. (Bartuševičienė & Šakalytė, 2013). A good organizational structure achieves organizational effectiveness in 3PL service providers (Elmuti, 2002). The structure-output relationship (Y.S.Man, 2006) develops a research model to identify the relationship between 3PL service providers and their supply chain partners. The relationship has elements like productivity, financial performance and market share, cycle time, customer service, and reputation and goodwill (Beamon, 1999; Thomas, 1999; Mentzer et al., 2000; Carr and Person, 1999; Elmuti, 2002; Lai et al., 2004; Reiner, 2005 as cited by Asthana,2013).

On top of this, relationship management is also one of the variables of performance measurement. Relationship Management is the ethical and efficient management of an organization-stakeholder relationship, focused over time, on common interests and shared goals in support of mutual understanding and mutual benefit” (Ledingham, 2015). Both in a theoretical framework and empirical finding, customer relationship is vital for a third-party logistics provider. Like Hertz and Alfredsson (2013) presented, the fierce competition is more and more obvious in the third-party logistics business. Customer relationship management is a key strategy to approach the challenge and adopt the environment (Wang & Mingfei, 2014). The logistics outsourcing literature has documented relationship management as an effective strategy for managing dependency on 3PL providers (e.g., Huo et al., 2015; Lai et al., 2013). Lai et al. (2013), for instance, found relationship management (including establishing high-quality connections and integration) promoted greater cooperation between partners, improving the overall effectiveness of the supply chain. (Huo et al., 2015 as cited by the Chu, & Wang, Lai, Collins, 2017). A stable relationship can reduce supply and demand uncertainty, creating a more beneficial environment for business operations, further reducing the costs of controlling the environment, enhancing coordination and cooperation among supply chain partners, and providing benefits and competitive advantages from the relationship, thus enhancing the performance of the supply chain partners (Shin, N.; Park, S.H.; Park, S.,2019 as cited by Yeh, T., Pai, F. & Wu, L., 2020). Good relationship management, such as one that involves guanxi,

trust, and commitment among SC partners, enhances 3PL organizational performance (Elmuti, 2002). Chen et al. (2010) examined guanxi as a type of human capital resource and found it could enhance buyer-3PL provider collaboration. For constraining 3PL providers' opportunistic behavior, 3PL users can employ guanxi to manage and mitigate the negative influence of higher dependency. Moreover, with guanxi, 3PL users can manage supply risks (Cheng et al., 2012), and enhance collaborations with 3PL providers (Chen et al., 2010). Therefore, guanxi can be employed to tackle dependency by taking advantage of cooperation between 3PL users and providers. Guanxi scales were adapted from Leung et al. (2005) and Cheng et al. (2012). Research also showed that guanxi always contributes to performance, irrespective of whether uncertainty and asset specificity are high or low. Therefore, although 3PL users should consider these aspects when choosing guanxi as a strategy to cope with dependency, they can however employ guanxi as an effective enabler for their performance. (Chu, Z., & Wang, Q., Lai, F., Collins, B, 2017). Likewise, the relationship quality scale by Payan et al. (2010) identified cooperation, coordination, specific assets, satisfaction, trust, and commitment dimensions. (Altuntas, G., Semerciöz, F., Sozuer, A., 2015).

#### **2.1.3.4. 3PL Performance challenges**

Different challenges are affecting the 3PL industry as mentioned by various literature. The challenge is both infrastructure and non-infrastructure in nature. For this study, different infrastructural and non-infrastructure challenges are reviewed and explained. One of the challenges faced in the logistics industry is a lack of talent. Logistics industry leaders face a critical talent shortage because of the global deficiency of supply chain professional talent (Cooper stein, 2015 as cited by D'Alessandro, 2018). In a 2015 survey of logistics providers, 50% of the respondents reported that they have trouble finding supply chain professionals (Leon & Uddin, 2016 as cited by D'Alessandro, 2018). 3PLs experience a critical challenge with talent management and shortages because the organizations lack branding, compete with organizations that offer higher compensation, and must respond to increased customer expectations. This need for specialty requires highly skilled talent to manage supply chain issues for customers that result in financial gains for 3PLs. The latest annual study of North American 3PL CEOs cited talent acquisition and retention six times more frequently than any other issue (Lieb & Lieb, 2016 as

cited by D'Alessandro, 2018). Furthermore, Workforce issues are among the top concerns of those taking part in The Annual Third-Party Logistics Study. Respondents reported that the top five workforce issues currently facing their organization are attracting talent (59%), developing leaders (48%), retaining high performers (40%), enhancing employee motivation and engagement (38%), and enhancing workforce performance (37%) (Langley,2019)

The other factor considered as a challenge for the 3PL industry is the lack of good reporting systems, third-party logistics study (2019) indicated that both shippers and 3PLs were asked to identify areas within 3PL operations where the sharing of data was in greatest need of improvement. Perhaps the most striking finding is that 43% of shippers felt that 3PLs needed to improve how their solution design/delivery teams shared pertinent data with account management. In contrast, this was identified as an area for improvement by only 25% of 3PL respondents. Among respondents, 36% of shippers and 35% of 3PLs agreed that there were opportunities to improve the sharing of insight and data collected by the sales team with account management. Also, 37% of shippers and 35% of 3PLs agreed there was a need for improving the hand-off of bid, RFP, and tender data with solution design/ delivery. (Langley,2019). On the other hand, research (Neil, 2011 as cited by Tekle, 2018) indicated expensive new technology, and lack of interaction systems are some of the challenges of the 3PL industry.

3PL firms are involved in importing and exporting goods that require compliance with government rules and regulations like customs policy and Bank procedures. Laws and regulations indirectly influence international logistics performance by impacting the execution of cross-border payments, technology applications, and electronic clearance (Liu et al., 2015).

Research also suggests that regular appeals against customs decisions represent one of the most important institutional obstacles encountered by SMEs in the import-export sector. This supports earlier results on Kosovo by Krasniqi (2007). Case of Ethiopia, the efficiency of the customs authority is very low, and this causes a lot of delays at check points. The number of check points is also too much. The number of days required to get foreign currency from the

national bank is also very long. (Fekadu,2013). Other research results indicated also, complexity or redundant customs formalities that delay clearance and create opportunities for unnecessary discretionary interventions, which may lead to lagging and inefficient logistics. In this regard, the survey result shows that there is the redundancy of goods physical examination. (Temesgen,2020). Similarly, Fasika, Klaus, and Marcus (2014) in their research on the 12 types of industries found that long delays in customs and port handling, as well as complex tariffs for imported items, are becoming the challenge for logistics and supply chain processes (as cited by Ayenew 2016)

Findings also showed that, challenges of collaboration between the supply chain parties as one of the challenges the industry is facing. A good collaboration with 3PL will make the company able to reduce 15 % of logistics costs, fixed asset investment in logistics by 25 %, and inventory costs by 11 % [suwastika,2017]. Supply chain collaboration (SCC) will affect relational quality in the context of the logistics service industry (Ha B, Park Y, Cho S,2011). Efficient relationship logistics is influenced by joint decision making and information sharing between the supply chain (Richey RG, Adams FG, Dalela v,2012). On the other hand, collaboration shows highly positive relationships with the level of time-based logistical service quality (timeliness), and to achieve operational logistic effects, supply chain collaboration is needed (Thai, 2013) [ as cited by Kempa & Jiwa,2020]. The supply chain relationships are characterized by structural interdependence and asymmetrical distribution of resources, which creates dependence within members (Crook and Combs, 2007, McCarter and Northcraft, 2007). High dependence will lead to uncertainties and opportunistic behaviors, resulting in conflicts that negatively affect the overall collaboration. (Corsten and Felde, 2005, Ireland and Webb, 2007 as cited by Sridharan & Simatupang, 2013). On top of this, a study conducted by Daudi, M., Hauge, J.B. & Thoben, KD. (2016) reviewed 2445 articles published between 2001 and 2015 inclusively indicated that, in logistics collaboration, behavioral uncertainties contribute to the lack of trust. Such uncertainties can consistently be interpreted as a degree to which future states of the world are difficult to anticipate and accurately predict. This difficulty makes an action to trust and decision making harder, but also uncertain. Decision-making uncertainty is operationalized to comprise of three concepts: (1) adequacy of available

information from all sources; (2) predictability of the consequences of these decisions; and (3) the degree of confidence of the decision-maker. Whereas information availability is limited, difficulty in predicting trustee-party's actions and interactions increases. Accordingly, Trust and dependence exist simultaneously in supply chain relationships and work jointly, though in different ways, to influence integration and collaborations (Ireland and Webb, 2007, Krause et al., 2007 as cited by Sridharan & Simatupang, 2013).

The other non-infrastructure challenge faced by the industry is Meeting the Shippers' Specifications and Requirements in terms of timely delivery and Customer service. Many scholars in their work stated that minimizing lead time is a day-to-day challenge faced by 3PL industries (Mei and Zhang, 2011). In addition, Gupta et al. (2011) indicated that the 3PLs need to be flexible in moving the products without misinterpretations and having the correct value additions to the customers. Failure of such regulations results in contractual breaches and the inability of the firms to satisfy customer requirements (Shi, Y., Osewe, M., Han, L. and Liu, A., 2019). The article on "3PL Perspectives 2020" indicated that meeting customer service requirements is also accounting for 34% of the challenge faced by 3PL. (Douglas, 2020). Among the non-infrastructure challenges faced by 3PL firms, the impact of lack of collaboration and challenge faced by the industry in Meeting the Shippers' Specification and Requirements in terms of timely delivery and Customer service was overlooked in most of the studies undertaken by scholars in Ethiopia.

Lastly, the other challenge faced by 3PL firms is the lack of Infrastructure. As Clifford (2011) stated one of the top ten logistics challenges is infrastructure (as cited by Ayenew, 2016). In the specific case of Ethiopia, research indicated that poor infrastructure and longer customs procedures are among the obstacles that hinder service providers" delivering the product on time (Goshu, 2016). Furthermore, the density and quality of transport infrastructure are very low, 70 percent of the rural population is not connected to all-weather roads. The freight vehicles are not adequate in number and age to meet the transport demand of the country. (Fekadu, 2013). The logistics challenges of 3pl companies in providing the service include managing logistics to & from remote areas, poor road infrastructure, security risks of cargos,

lack of skilled manpower, low level of performance from suppliers, and managing complex, multi-modal transportation requirements. (Mengistu,2016).

#### **2.1.4. Supply Chain Efficiency**

If a country wants to maximize the competitive advantage of firms that offer different products and services within and outside of the country, it is imperative to investigate what is affecting their competitive advantage. As mentioned above, currently, firms are gaining a competitive advantage through logistics efficiency. In the 21st-century business environment, uncertainty, growing competition, shorter cycle times, more demanding customers, and pressure to cut costs have become common and noticeable everywhere. Due to these characteristics of the business environment, logistics is one of the functions that companies are currently outsourcing. Literature has shown that outsourcing logistics activities play a vital role in making a company's activities more efficient and effective and have a greater impact on the performance of the logistics service. In the process of managing their SC, firms need to analyze its efficiency and effectiveness, to make sure they are gaining a comparative advantage. SCE management has been gradually recognized as a key factor in characterizing good and service offerings and acquiring competitive advantage for corporates (Christopher, 1998). It requires close integration of internal operations within corporate and efficient relationships with the external functions of members in the SC (Lee, 2000). Also, different authors have the viewpoint that Logistics Service Providers can improve quality, speed, service level, cost, performance and contribute to savings and benefits in the supply chains (Fabbe-Costes et al, 2009 as cited by Mengistu,2016)

It is crucial to define SCE in consideration of understanding what the model developed measures. By associating the definitions for SC and efficiency, the derivable definition of SCE is the regulation on resource use founded on criteria while goods are moved from one location to another, in the path of which movement of the goods may be changed through processing (Janvier-James, 2011). Although there is a diversity of criteria that can be used to assess the SCE, for the aim of this study, the main criteria used are speed, reliability, cost, and customer satisfaction.

## 2.2. Empirical Study

An article on “3PL perspectives 2020”, researched by collecting 72% responses from North America and 20% responses from other countries, indicated four issues top the list of challenges that 3PLs face in 2020. The biggest is finding and retaining customers, mentioned by 67% of 3PLs. Nearly as many, 63%, feel challenged by issues of SC disruption, contingency planning, and risk management. Just behind that, 60% of respondents cite challenges related to investing in technology. Additionally, like the shippers they serve, most 3PLs worry about finding, training, and retaining qualified labor. Other challenges on the radar of more than one-third of 3PL respondents include capacity (cited by 49%), data management and digital transformation (41%), compliance and regulations (35%), and meeting customer service requirements (34%) (Douglas, 2020).

Logistics outsourcing practices of UK firms were conducted by Jaafar and Rafiq (2005); they reported that transportation (82.5%) and warehousing (53.0%) remain the main services used by the customers, followed by information services and other value-added services. Around half of the TPL customers (49.5%) were satisfied with the services provided by the 3PL providers, followed by those who were somewhat satisfied with the TPL services (23.1%) and those who were very satisfied with the TPL services (20.9%) (Dhayanidhi et al., 2011; Jaafar & Rafiq, 2005). Thus, the above-mentioned results show transportation takes first place from the outsourced logistics activities, followed by others.

In a study of assessment of the practice of logistics outsourcing to 3PL service providers. Case of Exporters in the Leather Industry of Addis Ababa, Goshu (2016) has assessed outsourced logistics activities, selection criteria, benefits, and challenges on outsourcing and its effect on the competitiveness of leather manufacturing firms to the global market. This research finding has shown that the industry is facing logistical challenges like an increase in operating cost and delay in customer order delivery, which can Challenge companies to lose their competitive advantage, hence facing a challenge to build a well-known brand name and have loyal customers.

In a study on the performance of logistics outsourcing and loyalty by Wallenburg et al. (2010), it has been shown that performance is an important level for maintaining loyalty through logistics outsourcing; they discovered that logistics outsourcing improves performance by exceeding customer goals and expectations and improving loyalty.

A case study of the partnership between Melville Corporation, a major US distribution operator, and Mercantile Logistics, an international logistics service provider, shows that the partnership

has achieved its four main operational objectives: reduce total logistics costs, reduce transit times, and improve information and reliability of pipeline.

Based on a study on the benefits and risks of outsourcing logistics in the Romanian industry conducted by (Irina & Mirela, 2014) the findings on the benefits pursued by companies that resort to logistics outsourcing are 55% focused on the company's core competencies, 96% on cost reduction, 66% on increasing customer service level, 44% on increasing competitiveness, 25% on access to new technologies, and 68% for risk-sharing.

Although there are problems encountered during the outsourcing of logistic activities, the cited outsourcing related risks were the supplier's failure to meet the required quality standards (43%), events of default (39 %), poor communication with the supplier (33%), loss of control on the process (13%), lack of compatibility between the two parties' strategies (18%), insufficient competences on the supplier side (25%), and hidden costs (67%).

The research was done in South Africa that studied logistics outsourcing by manufacturers result indicated that that service level commitments were not realized, as stated by 51% of the respondents. There were also cost creep and price increases after the relationship started (47%) and cost reductions were not realized (45%). Furthermore, 38% felt that the time and effort which they spent on logistics had not been reduced. (Beverley & Rose, 2011).

The literature is rich in theoretical models and empirical studies that deal with the decision to outsource, its determinants, success factors and failure, and the role third parties play. However, it is found that studies that investigate the challenge affecting 3PL's performance

and how the performance of a 3PL service provider is impacting the SCE in different sectors in Ethiopia from the third-party perspective remain very little.

### **2.3. Conceptual Framework**

The literature review above has clearly shown that different researches have been done to investigate a firm's supply chain, the reason for outsourcing, its determinants, success factors and failure, and the role third parties play from an outsourcing firm perspective. This study investigates the performance indicators of third-party logistics providers like Service quality, organizational effectiveness, and relationship management ability from a broader and third-party logistics service provider perspective. That is, it investigates how these performance indicators are affecting the supply chain efficiency of different firms that are outsourcing the logistics function to a third-party logistics service provider. While referring to supply chain efficiency, the ability to provide speedy and reliable supply chain service, achieve cost efficiency, and crate satisfaction to the outsourcing firm customers will be the major elements under study. To make the study more comprehensive, factors challenging 3PLS performance will be analyzed from different aspects of the current situation. The collection, recording, and analysis of data focus on the static description of objective facts.

# **CHAPTER THREE**

## **RESEARCH DESIGN AND METHODOLOGY**

### **3.1. Introduction**

This chapter is about the research design and methodology used in the study which includes the research design, population and sample size, source and instruments of data collection, procedures of data collection, methods of data analysis, validity and reliability, and ethical issues of the study.

### **3.2. Research Design**

The study adopted empirical investigation with descriptive research design since the major focus of the research is the investigation of third-party logistics providers' performance in the case of Green International Logistics services plc. Descriptive research design is a study that is concerned with describing the characteristics of a particular individual, or of a group. Studies concerned with specific predictions, with the narration of facts and characteristics concerning the individual, group or situation are all examples of descriptive research studies (Kothary, 2004, p37). Since the study is preliminary descriptive designs are used in the attempt to establish preliminary work that will lead to future studies.

### **3.3. Research approach**

The study used both quantitative and qualitative research approaches. A mixed research approach is an approach that combines or associates both qualitative and quantitative forms. It involves philosophical assumptions, qualitative and quantitative techniques, and mixed methods in a study. The overall strength of a study is more highly than either qualitative or quantitative research (Creswell & Clark, 2007).

Since the main objective of the study is to investigate the performance of 3PL providers and the challenge affecting its performance the study employed a descriptive type of research design.

### **3.4. Population and Sampling**

The target population for this thesis is composed of employees of GILS, customers, and suppliers to get a complete view of the challenges faced from an internal point of view and the effect of the performance on the outsourcing firm supply chain from an external point of view. On top of this, even though there is a quite large list of suppliers and customers in this population, the target was set on customers, suppliers, and employees that are involved in the day-to-day operation and those that are currently available, operational, and actively working with GILS at the time of the research.

The specific individuals that were targeted for the study included directors, logistics officers, coordinators, operations and logistics managers, fleet management officers, packers, procurement officers, and SC managers. A convenient and purposive sample method was used to obtain data from employees, customers, and suppliers. A convenience sampling (also known as Haphazard Sampling or Accidental Sampling) is a type of nonprobability or nonrandom sampling where members of the target population that meet certain practical criteria, such as easy accessibility, geographical proximity, availability at a given time, or the willingness to participate are included for the study (Dörnyei, 2007 as cited by Ilker,2016).

Thus, as a target population, the total employees of GILS, as well as Customers and suppliers who know the subject matter and were getting the service from GILS were selected. Accordingly, the overall target population of the study was 100 employees and 135 customers' and suppliers' employees that are closely working within the supply chain.

To determine the sample size, the researcher preferred to use a method indicated by Malhorta (2007). According to him when the population is large; the required sample size was around 384 for this population with a 5% margin of error and a 95% confidence level (Z-score is 1.96 for a 95% confidence level).

Formula:

$$SS = (Z\text{-score})^2 * p*(1-p) / (\text{margin of error})^2$$

$$SS = (1.96)^2 * 0.5*(1-0.5) / (0.05)^2$$

$$SS = 3.8416 * 0,25 / 0.0025, SS = 384.16$$

The study further did finite population correction for proportions, according to (Singh and Masuku, 2014) finite population correction for proportions can be done for a small population. In this case, the sample size can be reduced slightly. This is because a given sample size provides proportionately more information for a small population than for a large population. The large population sample size ( $n_0$ ) can be adjusted as

$$n = n_0 / [1 + \{(n_0 - 1) / N\}]$$

Where  $n$  is the sample size and  $N$  is the population size.

For this study since the target population is  $N= 235$  and as per above  $n_0. =384$

$$N= 384 / [1 + \{(384 - 1) / 235\}] = 146$$

According, a total of 146 respondents from customers, and suppliers, as well as employees, and executives of the GILS were involved in this thesis from the targeted population. It can be said that the respondents are from different functions at different levels of the supply chain. During conducting this thesis, out of 146 samples, 42 employees, 2 section managers, and 1 top-level manager of GILS were taken as a sample with convenience and purposive selection method. The remaining size of the sample (101 in number) was allocated for 100 GILS customers and suppliers as well as 1 supply chain expert as a sample unit by taking convenience and purposive selection method.

### **3.5. Data Sources and Methods of Data Collection**

The study collected data from the structured and non- structured questionnaire and interview that was prepared in two different categories to gather data from employees and customers or suppliers of GILS separately as a source of its primary data. It also used secondary data to

explain the subject matter. For the questionnaires, a five-point Likert scale of (Strongly agree (5), Agree (4), Neutral (3), Disagree (2), and Strongly Disagree (1)) was used. The questionnaire used by this study consist of both structured and unstructured questions. Highly structured questions are useful since they reduce variability in meanings. They also offer ways of ensuring comparability of the responses provided by respondents.

Since no standard questionnaire was found related to all performance influence on supply chain efficiency and challenges faced, the questionnaire was prepared by referring to different related studies, and to increase the validity of the instrument, the questionnaire was pre-tested on some of the respondents that have adequate knowledge of the subject. Using the expert views and suggestions, the final questionnaire was prepared and distributed to the respondent employees of GILS and employees of outsourcing firms.

The structured questions consisted of three sections; Section A was used to collect demographic information; Section B was a structured question regarding the variables under study based on the three 3PL performance indicators like service quality, organization effectiveness, and relationship management as bases of measuring performance (Asthana, 2013). Section C. was a non-structured question, to get more detailed insight on important matters. The questionnaire was designed in a way that it analyzes the two questions raised by the study, by creating two different questionnaires. The first questionnaire was regarding the effect of the 3PL provider's performance indicators on the SCE of the outsourcing firm. The second questionnaire was how the challenges faced by the 3PL firm are impacting their performance. In addition to this, the interview was used to collect the qualitative data regarding the two questions under the study.

### **3.6. Data Analysis Method**

The research instrument that was adopted by the study was questionnaires. The answers for the questionnaires were presented using descriptive analysis using mean and standard deviation. Also, tables, figures, and percentiles were used to analyze the frequency of occurrence. The standard deviation was used as a measure of dispersion; it refers to the spread of the values around the central tendency. Data and information that was collected during the thesis were

reduced into a summary form that was processed by using Software Package for Social Scientists (SPSS). The data from the open-end questions and the interview was analyzed by coding the response obtained.

### 3.7. Reliability

To check item reliability Cronbach’s alpha coefficient was calculated to all items arranged in a five-point Likert scale based on the responses of 73 questionnaires collected from employees and customers or suppliers on top of these two employees were interviewed. The remaining participants did not give feedback to the questionnaire despite continuously being requested. The test results indicate that the data was 96.8% reliable for data collected from employees and 97.9 % reliable for the data collected from suppliers.

**Table 3.1 Reliability test Statistics Source: SPSS Version 25.0**

<b>Reliability of employees’ data Case</b>			
<b>Processing Summary</b>			
		N	%
Cases	Valid	31	93.9
	Excluded <sup>a</sup>	2	6.1
	Total	33	100.0
a. Listwise deletion based on all variables in the procedure.			

<b>Reliability Statistics</b>		
Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.968	.968	12

#### Reliability of customers or suppliers’ data

<b>Case Processing Summary</b>			
		N	%
Cases	Valid	37	92.5
	Excluded <sup>a</sup>	3	7.5
	Total	40	100.0
a. Listwise deletion based on all variables in the procedure.			

<b>Reliability Statistics</b>		
Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.979	.979	36

### **3.8. Ethical Consideration**

The research has kept the respondent's identity secret and understands that all the information collected from firms is going to be kept confidential to keep their ethical value. Since questionnaires were related to performance rather than financial data information that required sensitive treatment was not involved which allowed the firm representatives to freely respond to the items under study.

# **CHAPTER FOUR**

## **DATA ANALYSIS AND INTERPRETATION**

### **4.1. Introduction**

This chapter contains a detailed presentation of findings and a discussion of the results of the study. The findings are presented under the following major headings: characteristics of respondents, Socio-demographic characteristics; Descriptive analysis on 3PL providers' performance from its ability to create supply chain efficiency to outsourcing firms context as well as the non-infrastructure and infrastructure performance challenges impact on Third-party logistics provider performance. It also further presents the findings obtained from the open-ended questions and interviews. Finally, the findings of the study are discussed, and the limitation of the study is presented.

### **4.2. Characteristics of Respondents**

For the analysis of the subject matter under study, two different questionnaires and interviews were prepared. Following the sample size, 144 questionnaires were distributed among which 44 questionnaires were distributed to Green international logistics service plc (GILS) employees and one interview was conducted. Likewise, 100 questionnaires were distributed to suppliers and customers and one supply chain expert was interviewed. The research response rate is 75(51%) which is an acceptable response rate. Thus, the response obtained is qualified and valid for analysis. Accordingly, the results will be presented as follows.

### **4.3. Socio-demographic Characteristics**

#### **4.3.1. Age and Gender of Respondents**

The result showed that all ages (20 through to over 50) were represented, with a slightly larger number in the 31 to 40 years range which accounted for 26 (36.1%) of the respondents. The smallest number of participants were in the age range of 50 and above years which accounted for 5(6.9%). As for Gender, a higher percentage of the participants were male which accounted for 48(67.6%). whereas 23(32.4%) of participants were female. Accordingly, a higher number

of respondents were in the age range of 31 to 40 years, and most respondents were male.

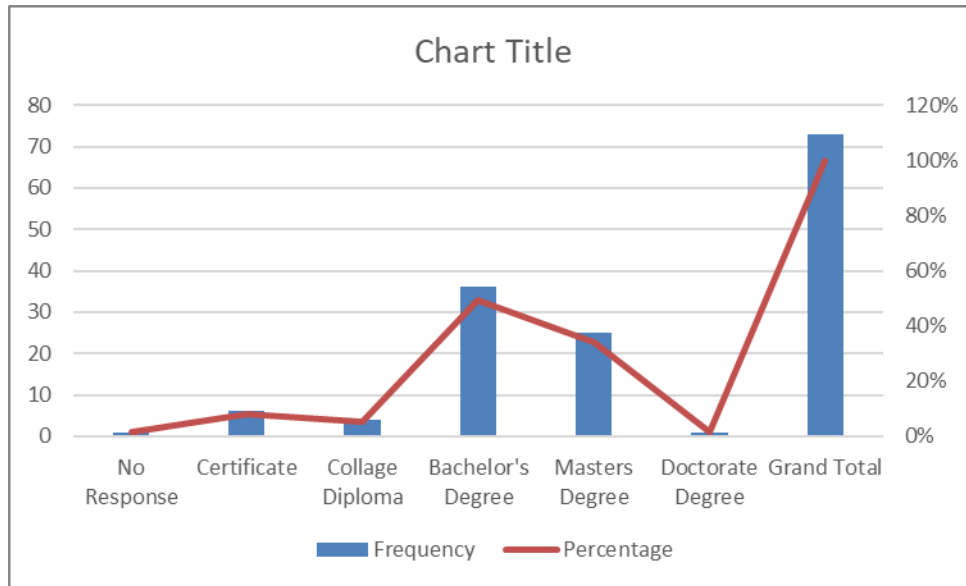
**Table 4.1: Age and Gender of Respondents Source:SPSS Version 25.0**

		<b>Age</b>			
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No response	1	1.1	1.4	1.4
	20-30	19	20.0	26.4	27.8
	31-40	26	27.4	36.1	63.9
	41-50	21	22.1	29.2	93.1
	>50	5	5.3	6.9	100.0
	Total	72	75.8	100.0	

		<b>Gender</b>			
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	48	50.5	67.6	67.6
	Female	23	24.2	32.4	100.0
	Total	71	74.7	100.0	

### **4.3.2. Educational levels of the respondents**

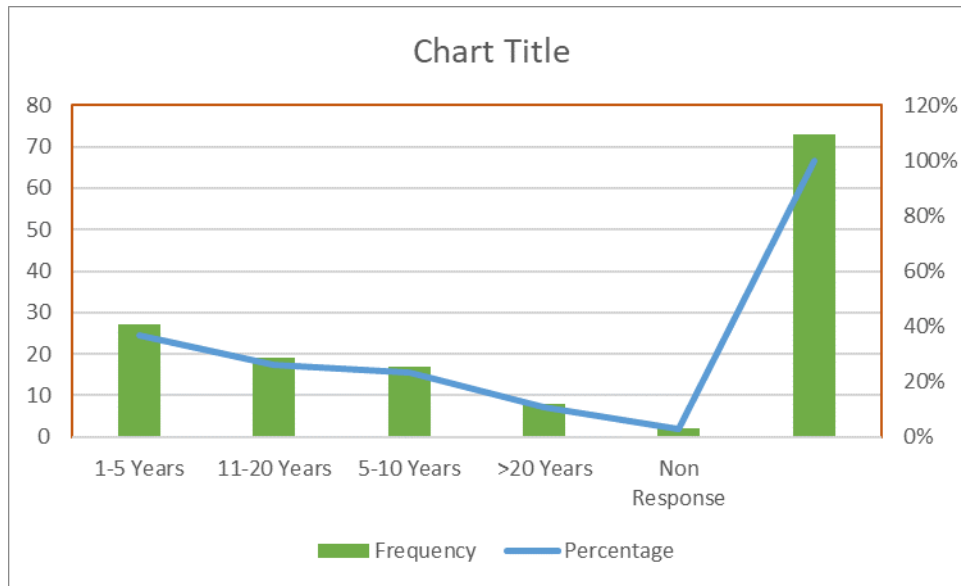
The findings showed that 36(49%) of the respondents had a bachelor’s degree. Of the total respondents, 66 (99%) of the participants had bachelor’s degrees and above education level. Only,1 (1%) had accomplished a doctorate, while 6(8%) of the respondents had only a certificate or Diploma. Thus, data collected on respondents showed that the education level from certificate to Doctorate was represented and most of the respondents have the educational level of bachelor’s degree.



**Figure 4.1: Level of Education** Source: SPSS Version 25.0

### 4.3.3. Experience in Logistic and Supply Chain Industry

The research indicates the participants having more than 20 years of experience in the logistic and supply chain industry accounted for 8(11%) of the total participants. The minimum years of experience in the industry with 1 up to 5 years had a response rate of 27(37%) which accounts for most of the participants. A large proportion, 63(86%) had experience ranging from 1 to 10 years (Figure 4.2). This indicates that most of the participants had sufficient years of experience to provide feedback on the subject matter under study.



**Figure 4.2:** Experience of the respondent in the logistics and supply chain industry Source: SPSS Version 25.0

#### 4.4. Descriptive Analysis

A five-point Likert scale was employed to measure the 3PL performance influence on supply chain efficiency of outsourcing firms as well as the impact of challenges on 3PL performance. Mean was used as a measure of central tendency. Likert scale items are created by calculating a composite score (sum or mean) from four or more type Likert-type items. Therefore, the composite score for Likert scales was analyzed at the interval measurement scale. For the ease of analysis the Likert scale data from 1 (Strongly Disagree) to 5 (Strongly Agree) was consolidated to a 3-point scale and a range is calculated as the sample is approximately normally distributed, the interpretation should be for mean up to 1.67 is “Disagree or strongly disagree”, mean between 1.68 and 2.34 is “Neutral”, and mean above 2.35 is “agree or strongly agree”. Therefore, the decision of the summary statistics is done based on these criteria.

##### 4.4.1. 3PL Performance Influence on Supply chain Efficiency

To describe and analyze GILS performance influence on supply chain efficiency of the outsourcing firm, customers and suppliers were requested to fill 5-point Likert scale questionnaire. This question was measured by the influence of performance indicators like

service quality, organizational efficiency, and relationship management of GILS on the outsourcing firm supply chain efficiency elements like outsourcing firms supply chain Speed, reliability, cost efficiency, and ability to create customer satisfaction

#### **4.4.1.1. Service Quality Influence on Supply Chain efficiency**

Service quality is one of the performance measurement variables or indicators for 3PL service-providing firms. Service Quality is generally defined as the compatibility of a customer's experience of receiving a certain service with his or her prior expectations (Canciglieri Junior et al., 2019; Parasuraman et al., 1994, 1988 as cited by Asthana, 2013). Accordingly, to analyze the influence of service quality provided by GILS on the supply chain efficiency of the firm outsourcing logistics services to GILS, different questions were used which showed the result of a higher mean score of 2.71. More specifically, the influence of Service Quality on cost efficiency with a mean (2.71) and the ability to create satisfaction to its customer with a mean (2.6) showed that Service quality has a high influence on the supply chain efficiency through its impact on supply chain ability to achieve cost efficiency.

Furthermore, the standard deviation of the overall effect of service quality on supply chain efficiency showed 0.515. Accordingly, as per the respondents, there is a high tendency that Service quality provided by GILS is positively affecting the supply chain efficiency of the outsourcing firm, with its high influence on cost efficiency crated to the outsourcing firm. The response of the questions used to show the influence of service quality Provided by GILS on the ability of the outsourcing firm to achieve the desired speed in the supply chain process, reliable supply chain process, the cost efficiency desired, the ability of the firm to provide supply chain service that crate satisfaction to its customer is shown in Table 4.2.

**Table 4.2: The Effect of Service Quality on Supply Chain Efficiency** Source: SPSS Version 25.0

<b>Service quality Influence on Supply Chain Efficiency</b>	N	Mini	Maxi	Mean	Std. Deviation
The service quality Provided by GILS is positively affecting the ability of the firm to achieve the desired speed in the supply chain process	38	1	3	2.61	0.638
The service quality Provided by GILS is positively affecting the ability of the firm to achieve a reliable supply chain process	38	1	3	2.58	0.642
The service quality Provided by GILS is positively affecting the ability of the firm to achieve the cost efficiency desired in outsourcing the service.	38	1	3	2.71	0.515
The service quality Provided by GILS is positively affecting the ability of the firm to provide supply chain service that crate satisfaction to its customer.	38	1	3	2.68	0.525
<b>Overall Service Quality influence on supply chain efficiency</b>	38	1	3	2.71	0.515
Valid N (listwise)	38				

#### **4.4.1.2. Organizational Effectiveness Influences on Supply Chain Efficiency**

Organizational effectiveness is defined as the power to produce the desired result. (Buder & Felden, 2012 as cited by Wilson, Wnuk, Silvander, & Gorschek, 2018). The study in its attempt to analyze if the organizational efficiency of GILS is positively affecting the supply chain efficiency of the outsourcing firm. Different questions were used and showed a higher score overall mean result of 2.65. More specifically, the influence of organizational efficiency on the speed with a mean (2.68) and the ability to create satisfaction to its customer with a mean (2.68) showed that organizational efficiency has a high influence on the supply chain efficiency through its impact on supply chain speed and ability to create customer satisfaction. Moreover, the standard deviation of the overall effect of Organizational efficiency on supply chain efficiency showed 0.42. Thus, GILS Organizational efficiency impact on supply chain efficiency is shown to be high and positive. The summary of the results is presented in Table 4.3.

**Table 4.3 Organizational efficiency on Supply Chain Efficiency** Source: SPSS Version 25.0

Organizational efficiency Influence on Supply Chain Efficiency	N	Minimum	Maximum	Mean	Std. Deviation
The organizational efficiency of GILS is positively affecting the ability of the firm to achieve the desired speed in the supply chain process	38	1	3	2.68	0.525
The organizational efficiency by GILS is positively affecting the ability of the firm to achieve a reliable supply chain process	38	1	3	2.66	0.534
The organizational efficiency GILS is positively affecting the ability of the firm to achieve the cost efficiency desired in outsourcing the service.	38	1	3	2.58	0.552
The organizational efficiency by GILS is positively affecting the ability of the firm to provide supply chain service that crate satisfaction to its customer.	38	1	3	2.68	0.525
overall organizational efficiency influence on supply chain efficiency	38	1.75	3.00	2.6513	0.42131
Valid N (listwise)	38				

**Note 1= Strongly disagree, 2= Neutral, 3 = Strongly agree and agree**

#### **4.4.1.3. Relationship Management Influence on Supply Chain Efficiency**

Relationship Management is the ethical and efficient management of an organization-stakeholder relationship, focused over time, on common interests and shared goals in support of mutual understanding and mutual benefit (Ledingham, 2015). This study in its attempt to

analyze if the relationship management ability of GILS is positively affecting the supply chain efficiency of the firm outsourcing logistics services to GILS, different questions were used which showed an overall mean of 2.60.

More specifically, the response of the questions used showed that the relationship management ability of GILS is positively affecting the ability of the firm to achieve a reliable supply chain process showed a high influence with a mean score of 2.68. The standard deviation of the overall effect of Organizational efficiency on supply chain efficiency showed 0.50. Accordingly, it can be considered that the relationship management ability of green is positively influencing supply chain efficiency with a higher impact on the outsourcing firm supply chain reliability. The summary results are presented in Table 4.4.

**Table 4.4 Relationship Management on Supply Chain Efficiency** Source: SPSS Version 25.0

Relationship Management Influence on Supply Chain Efficiency	N	Min	Max	Mean	Std. Deviation
The relationship management of GILS is positively affecting the ability of the firm to achieve the desired speed in the supply chain process	37	1	3	2.62	0.639
The relationship management by GILS is positively affecting the ability of the firm to achieve a reliable supply chain process	37	1	3	2.68	0.530
The relationship management GILS is positively affecting the ability of the firm to achieve the cost efficiency desired in outsourcing the service.	36	1	3	2.58	0.554
The relationship management by GILS is positively affecting the ability of the firm to provide supply chain service that crate satisfaction to its customer.	37	1	3	2.57	0.603
overall relationship management influence on supply chain efficiency	37	1.00	3.00	2.608 1	0.50187
Valid N (listwise)	36				

**Note 1= Strongly disagree, 2= Neutral, 3 = Strongly agree and agree**

The suppliers and customers of GILS were requested to choose from the checklist box showing the three performance indicators like service quality, organizational efficiency, and relationship management, the participants that choose GILS service quality was positively affecting the supply chain efficiency of their firm was the highest which accounted for 21(52.5%). The summary of the result is shown in Table 4.5. Accordingly, the result showed that service quality is having the highest positive impact on supply chain efficiency.

**Table 4.5 :Performance indicator effect on supply chain efficiency.**

	Frequency	Percent	Valid Percent	Cumulative Percent
No. response	2	5.0	5.0	5.0
Service Quality	21	52.5	52.5	57.5
Organizational efficiency	9	22.5	22.5	80.0
Relationship Management	8	20.0	20.0	100.0
Total	40	100.0	100.0	

Source: SPSS Version 25.0

**4.4.2. GILS Performance Challenges**

To analyze challenges faced in GILS, employees were requested questions on non-infrastructure challenges like the existence of high employee turnover due to high demand for experts in the field, long training need for new employees due to lack of educational background in the field, lack of proper means of communication, lack of knowledge regarding the importance of information sharing, lack of right and on-time information from subcontracted suppliers of GILS, absence of transparency from subcontracted suppliers of GILS, the cultural difference that exists between countries in door-to-door service, different linguistic that creates barriers to communication, lack of reporting system due to the high cost of obtaining efficient system, existing of different rules implemented by countries to import and export goods, lack of means to update expertise on the rules and regulation changes, involvement of many parties to deliver the end-to-end service, lack of collaboration between the parties involved in the end-to-end service, lack of trust among the parties involved in the

service delivery, inability to meet the specification of shippers in terms of packing, timely delivery, and customer service. Moreover, questions on infrastructural challenges like bad road conditions and poor connectivity, inadequate air and seaport capacities, lack of developed modes of transports such as railways, roadways, and inland water transport were raised to the employees. The results obtained will be presented as follows.

**4.4.2.1. Non- infrastructural performance challenges**

**4.4.2.1.1. The Difficulty of Getting New Talents**

The study revealed that a high proportion of participants which accounted for 12(36.4%) strongly agreed or agreed that getting new talents is one of the challenges faced by the third-party logistics industry and only 7(21.3%) strongly disagreed or disagreed that the difficulty of getting new talents can be considered as one of the challenges faced by GILS. Among the measurement for difficulty in getting new talent, 19(57.6%) of participants strongly agreed or agreed that long training needs for new employees due to lack of educational background in the field. Whereas 15(46.9%) of respondents strongly agreed or agreed to the existence of high employee turnover due to the high demand for experts in the field. The respondent who was neutral to the measurement of difficulty of getting new talents accounted for 14(42.4%). Hence, the difficulty of getting talent can be considered as one of the performance challenges faced where a high contribution to this is sourced from the long training needed for new employees. due to a lack of educational background in the field. The result is summarized in table 4.6.

**Table 4.6: The Difficulty of Getting New talents Source: SPSS Version 25.0**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly disagree or disagree	7	21.2	21.2	21.2
	Neutral	14	42.4	42.4	63.6
	Strongly agree or agree	12	36.4	36.4	100.0
	Total	33	100.0	100.0	

#### **4.4.2.1.2. Difficulty to Provide Information or report**

The study also revealed that a high proportion 21(63.6%) of participants strongly agreed or agreed that difficulty to provide information or report is one of the performance challenges faced by GILS as a third-party logistics industry and only 6(18.2) responded strongly disagreed or disagreed that the difficulty of providing information or report can be considered as one of the performance challenges faced by GILS. Among the measurement for the difficulty to provide information or report, participants that responded they strongly agreed or agreed to the measurement are 22(66.7%) lack of proper means of communication, 14(42.4%) lack of knowledge regarding the importance of information sharing, 20(60.6%) lack of right and on-time information from subcontracted suppliers of GILS, 19(57.6%) absence of transparency from subcontracted suppliers of the GILS, 21(63.6%) the cultural difference that exists between countries in door-to-door service, 22(66.7%) different Linguistic that crates barriers to communication, 21(63.6%) lack of reporting system due to the high cost of obtaining efficient system.

Respondents who were neutral to the measurement of difficulty to provide information or report accounted for 6 (18.2%). Among the measurements of difficulty of providing information or report, lack of proper means of communication and different linguistic that creates communication barriers were top-rated with the response of strongly agreed or agreed to account for 22(66.7%) and 21(66.7%) respectively.

Whereas lack of knowledge regarding the importance of information sharing had 14(42.4%) strongly agreed on the response which was found to be the smallest. Therefore, the difficulty of providing information or report can be considered as one of the performance challenges faced in GILS with a high contribution for all the measurements used except lack of knowledge regarding the importance of information sharing. The result is summarized in Table 4.7.

**Table 4.7: Difficulty of Providing Information or Report.**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly disagree or disagree	6	18.2	18.2	18.2
	Neutral	6	18.2	18.2	36.4
	strongly agree or agree	21	63.6	63.6	100.0
	Total	33	100.0	100.0	

Source: SPSS Version 25.0

#### **4.4.2.1.3. Other Performance Challenges**

The study also showed that data gathered on the question used to measure other non-infrastructure performance challenges showed that the proportion of participants who responded as they strongly agreed or agreed to the existence of different rules implemented by countries to Import and Export Goods is 18(55.5%), lack of means to update expertise on the rules and regulation changes is 16(24.4%), involvement of many parties to deliver the end-to-end service is 20(60.6%), lack of collaboration between the parties involved in the end-to-end service is 12(36.4 %). But for the measurement of lack of trust among the parties involved in the service delivery and inability to meet the specification of shippers in terms of packing, timely delivery, and customer service respondent that strongly disagreed or disagreed accounted for 17(51.5%) and 16(48.5%), respectively.

Accordingly, existing of different rules implemented by countries to Import and Export Goods, lack of means to update expertise on the rules and regulation changes, involvement of many parties to deliver the end-to-end service, and lack of collaboration between the parties involved in the end-to-end service can be considered as non-infrastructure challenges. Whereas lack of trust among the parties involved in the service delivery and inability to meet the specification of shippers in terms of packing, timely delivery, and Customer Service cannot be considered as one of the performance challenges faced in GILS. Results are summarized in Table 4.8

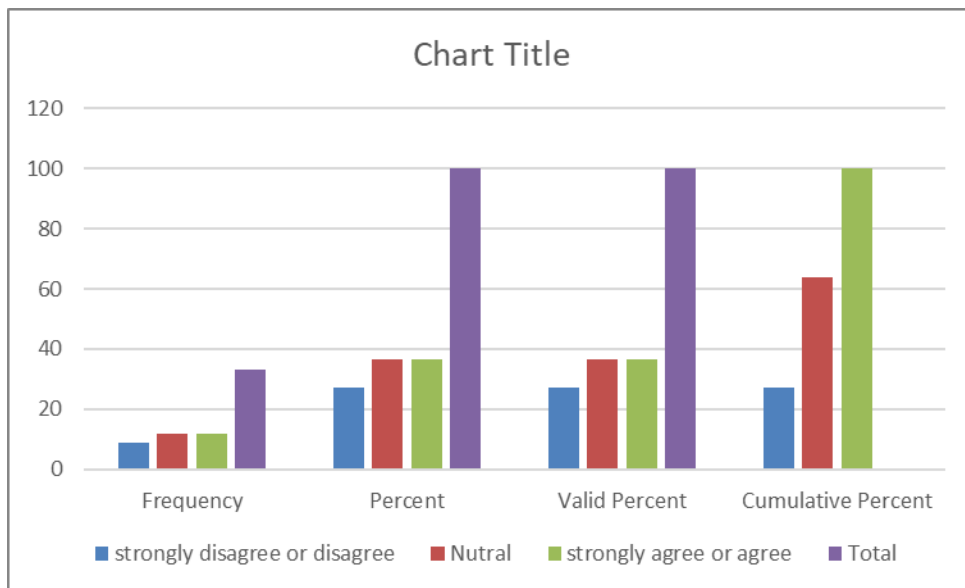
**Table 4.8: Other Challenges of Performance Challenge Source: SPSS Version 25.0**

<b>Existing of different rules implemented by countries to Import and Export</b>				
		Frequency	Percent	Valid Percent
	strongly disagree or disagree	12	36.6	36.6
	Neutral	3	9.1	9.1
	Strongly agree or agree	18	54.5	54.5
	Total	33	100.0	100.0
<b>Lack of means to update expertise on the rules and regulation changes</b>				
		Frequency	Percent	Valid Percent
	strongly disagree or disagree	12	36.6	36.6
	Neutral	5	15.2	15.2
	Strongly agree or agree	16	48.5	48.5
	Total	33	100.0	100.0
<b>Involvement of many parties to deliver the end-to-end Service</b>				
		Frequency	Percent	Valid Percent
	strongly disagree or disagree	10	30.3	30.3
	Neutral	3	9.1	9.1
	Strongly agree or agree	20	60.6	60.6
	Total	33	100.0	100.0
<b>Lack of Collaboration between the parties involved in the end-to-end service</b>				
		Frequency	Percent	Valid Percent
	strongly disagree or disagree	12	36.6	36.6
	Neutral	9	27.3	27.3
	Strongly agree or agree	12	36.4	36.6
	Total	33	100.0	100.0
<b>Lack of trust among the parties involved in the Service Delivery</b>				
		Frequency	Percent	Valid Percent
	strongly disagree or disagree	17	51.52	51.52
	Neutral	4	12.1	12.1
	Strongly agree or agree	12	36.6	36.6
	Total	33	100.0	100.0
<b>Inability to meet the specification of shippers in terms of packing, timely delivery, and customer service</b>				
		Frequency	Percent	Valid Percent
	strongly disagree or disagree	16	48.8	48.8
	Neutral	5	15.2	15.2
	Strongly agree or agree	12	36.6	36.6
	Total	33	100.0	100.0

#### 4.4.2.2. Infrastructural Performance Challenges

To analyze infrastructural performance challenges faced by GILS, different questions were used which showed the result of a higher proportion of strongly agree or agree in overall measurement accounting for 12(36%) of the total responses. The respondents that reacted neutrally to infrastructural Challenge as one of the sources of performance challenges for GILS were 12(36.6%) which is accounting slightly higher than the participants who strongly agreed or agreed. More specifically, the response of the questions used showed that the participants strongly agreed or agreed with bad road conditions and poor connectivity accounted for 14(42.4%) of the participants, lack of developed modes of transports such as railways, roadways, and inland water transport was 10(30.3%).

As for the existence of inadequate air and seaport capacities participants that strongly disagreed or disagreed accounted for the highest percentage of 11(33.3%). Consequently, it can be considered that non-infrastructural challenges are also faced but with a weak degree as the same number of participants also responded neutrally. Among the measurements of non-infrastructural challenges, the existence of inadequate air and seaport capacity cannot be considered as one of the performance challenges. The result is presented in figure 4.3.



**Figure 4.3: Infrastructural performance challenges** Source: SPSS Version 25.0

### 4.4.3. The Effect of Challenges on Performance of GILS

To describe and analyze the effect of challenges faced by GILS on their performance, the study requested employees to fill 5-point Likert scale questions which were measured by the impact of the non-infrastructure and infrastructure challenges on performance indicators with measurement variables like service quality, organizational effectiveness, and Relationship Management.

#### 4.4.3.1. Effect on Service Quality of GILS

From the questions distributed to analyze the effect of challenges faced by 3PL on service quality, the respondents' results showed that, among the challenges faced by GILS, the difficulty to get the right talent comprises a mean of 2.67 and the lack of a proper reporting system mean of 2.70, scored the highest mean value, and the existence of the inability to meet shipper's specifications scored the least mean value. The standard deviation of the overall effect of challenges on service quality as a performance indicator showed 0.602. Henceforth, the result indicated that challenges faced by GILS highly impact GILS performance through their influence on service quality. And this impact is highly sourced from the difficulty of getting the right talent and lack of a proper reporting system. Results are further summarized in Table 4.9.

**Table 4.9: Effect on Service Quality:** Source: SPSS Version 25.0

	N	Min	Max	Mean	Std. Deviation
The Challenge of Obtaining the right talent is affecting the Quality of Service Provided	33	1	3	2.67	.540
Lack of Proper reporting system is affecting Quality of Service Provided	33	1	3	2.70	.684
The existence of different rules and regulations implemented by the different countries is affecting the Quality of Service Provided	33	1	3	2.45	.794
The involvement of different parties in service delivery and lack of collaboration among them is affecting the Quality of Service provided.	33	1	3	2.61	.747
Inability to meet shipper's specification is affecting the quality of service provided	33	1	3	2.24	.867
Lack of infrastructure is affecting the quality of service provided.	33	1	3	2.48	.712
<b>The overall effect on service Quality</b>	33	1	3	2.59	.602
Valid N (listwise)	33				

#### 4.4.3.2. Effect on Organizational Effectiveness Of GILS

From questions distributed to analyze the effect of challenges faced by 3PL on its organizational effectiveness, the respondents' result showed that lack of a Proper reporting system scored the highest mean value of 2.12, and inability to meet shipper's specification scored the least mean value of 1.81. The standard deviation of the overall effect of challenge on organizational effectiveness showed 0.792. Therefore, it can be reflected that the challenges faced by GILS have a low impact on its organizational effectiveness with very low magnitude sourcing from an inability to meet shipper's specifications. The result is further summarized in Table 4.10.

**Table 4.10: Effect on Organizational effectiveness Source: SPSS Version 25.0**

<b>Effect of performance challenge on Organizational Effectiveness</b>	<b>N</b>	<b>Min</b>	<b>Max</b>	<b>Mean</b>	<b>Std. Deviation</b>
The Challenge of Obtaining the right talent is affecting Organizational Effectiveness.	33	1	3	2.09	0.843
The lack of a proper reporting system is affecting Organizational Effectiveness.	33	1	3	2.12	0.857
Existing of different rules and regulations implemented by different countries is affecting Organizational Effectiveness.	33	1	3	1.91	0.947
The involvement of different parties in service delivery and lack of collaboration among them is affecting Organizational Effectiveness.	33	1	3	2.09	0.843
Inability to meet shipper's specification is affecting Organizational Effectiveness	32	1	3	1.81	0.896
Lack of infrastructure is affecting Organizational Effectiveness.	33	1	3	1.97	0.883
<b>The overall effect on organizational effectiveness</b>		<b>1</b>	<b>3</b>	<b>1.91</b>	<b>0.843</b>

#### 4.4.3.3. Effect on relationship management of GILS

From questions distributed to analyze the effect of challenges faced by 3PL on its relationship management, respondents' results showed that lack of a proper reporting system scored the highest mean value of 2.18 and inability to meet shipper's specification scored

the least mean value of 1.67. The overall impact of challenges on relationship management had a standard deviation of 0.918, which implies that the challenge faced had little impact on GILS's relationship management ability. The result is further summarized in Table 4.11.

**Table 4.11: The Effect on Relationship Management** Source: SPSS Version 25.0

<b>Effect of challenges on Relationship Management</b>	<b>N</b>	<b>Min</b>	<b>Max</b>	<b>Mean</b>	<b>Std. Deviation</b>
Challenge of Obtaining the right talent is affecting Relationship Management	33	1	3	2	0.901
The lack of a proper reporting system is affecting Relationship Management.	33	1	3	2.18	0.917
Existing of different rules and regulations implemented by different countries is affecting Relationship Management.	33	1	3	1.91	0.765
The involvement of different parties in service delivery and lack of collaboration among them is affecting Relationship Management.	33	1	3	2.12	0.927
Inability to meet shipper's specifications is affecting Relationship Management.	33	1	3	1.67	0.736
Lack of infrastructure is affecting Relationship Management.	33	1	3	1.79	0.893
<b>Overall Effect of challenges on Relationship Management</b>		<b>1</b>	<b>3</b>	<b>1.97</b>	<b>0.918</b>

Note 1= strongly disagree, 2= Neutral, 3 = strongly agree and agree

## 4.5. Open-end Questions and Interview Result Analysis

### 4.5.1. Other Indicators Affecting Supply Chain Efficiency and Competitive Advantage Gained

Based on the open-ended questionnaire forwarded to customers and suppliers to find out other third-party logistics providers' performance indicators that are affecting their supply chain efficiency other than those already mentioned in Likert scale type questions, no valuable response was obtained which was not already included in the closed-ended questions.

On the other hand, for the open-ended questionnaire forwarded to customers and suppliers to find out if GILS has enabled them to gain a competitive advantage from supply chain efficiency, 15 responses were entertained from the expected 40 responses depicted in annex IV. Regarding this, most customers and suppliers comprising 40% have considered supply chain competitive advantage was gained through the utilization of existing relationship GILS has with their partners or Customs Authority. Moreover, responses comprising 20% considered competitive advantage was gained from avoidance of responding to the bureaucratic customs process. Additionally, 13% of the respondents responded as avoidance of dealing with a different party in the supply chain enabled them to gain competitive advantage from the supply chain and other 13% of the suppliers and customers enabled to gain competitive advantage from supply chain by Forex Wealth. The remaining responses ascertain that cost efficiency (7%) and focus on main activity (7%) enabled them to gain a competitive advantage from the supply chain.

#### **4.5.2. Challenges and Effect on GILS Performance**

To account for different challenges faced in a 3PL industry that might vary from country to country, open-ended questions were forwarded to GILS employees to find out other challenges faced to perform other than those already mentioned in Likert scale type questions. 20(56.6%) i.e., of the 33 respondents responded to this question as depicted in annex V. 50% of the respondents presume that low payment to employees compared to other companies is resulting in loss of valuable personnel to competition. 35% of the responses were about the lack of integration in the sense of lack of ownership and the clear segregation of responsibility is resulting in fault-finding behavior between supply chain partners. Moreover, management delay inaction resulting in loss of trust (5%), short term profit gaining mentality resulting in loss of contract (5%), and less equipped branches resulting in slow feedback to the client (5%) were considered as challenges that are impacting the performance of GILS.

#### **4.5.3. Interview result analysis**

Based on the interview conducted with a supply chain expert working in the field for more than 20 years to obtain further insight on GILS's performance influence on supply chain efficiency

and whether it is enabling to gain competitive advantage from the supply chain, the expert responded that the performance of GILS indeed affects the supply chain efficiency of different firms they have been working with. The expert sensed this effect while working as a supply chain manager in different firms which have been working with GILS. Regardless of all the challenges faced, the expert responded that the impact created by GILS is positive. The expert highlighted that among the performance measurement variables, the impact of service quality takes the highest share. In his response, he indicated that the 3PL performance impact is not only on the cost variable of the supply chain; these days the impact is more sensed on supply chain ability to provide service that satisfies customers due to the market competition in which the outsourcing firms operate.

“I believe ultimately it is the customer satisfaction that is affected as you know the product is dispatched in order so whenever the delivery of the good for our production line is blocked by green it is our customers that will be affected and since our customer are our business it will ultimately affect our revenue and market share.”

In answering the interview question “has outsourcing enabled you to gain competitive advantage?”, the expert responded that, with this competitive market where the firm has to engage high energy in its production and gain customer loyalty to win the competitive market, GILS is enabling the firms in which they have work for to gain competitive advantage by allowing them to concentrate on the main function of the firm which is producing and selling. The expert responded

“ Yes indeed [...] the speedy delivery we are getting from green logistics has gained our reliability to our customers and in effect, we have gained the trust of our customer which ultimately help us to gain the profit we desire also during this time we have produced due to the speedy service we are getting from green logistics. All this affected production and sales to the volume we expect [...] and yes it enabled us to focus on our main activities.”

Concerning the challenges faced and their impact on GILS performance, an interview had been conducted with the top manager of GILS in the absence of the general manager and revealed that the under listed major problems are encountered to perform which includes lack of enforcement of process and system resulting in the unsteadiness of service, the corporate culture of the company that starts from the management level to the lower-level employees, lack of integration between departments within the company. In explaining major factors affecting GILS performance the manager responded

“ I think the factor affecting is lack of consistency[...] this is related to the lack of enforcement of the process, protocols and system, it is existing, but it should be stronger and more competitive to provide a more consistent quality of service toward our customer[...]. Having protocol is one thing, enforcing them is another one and getting them respected is another thing[...] corporate culture of the company [...] which is crippling the company to take a step forward.”

For external factors affecting the performance of GILS performance, the manager mentioned the lack of infrastructures, lack of forex hindering international operation, political instability, changing rules, the uncertainty of the environment, and inflations. Furthermore, for the interview question “which challenge is highly affecting the performance of GILS and specifically which performance indicator?”, the manager responded that lack of enforcement of process and system is highly influencing GILS performance through its impact on service quality.

#### **4.6. Overall discussion of results**

This study attempted to assess GILS’s performance by taking a deeper analysis on how performance indicators o GILS is its impact the supply chain efficiency of the outsourcing firm. In addition, the study tried to investigate the challenges faced in the industry and how it is impacting GILS performance. The investigation was conducted by gathering data through questioning and interviewing the employees of GILS and the outsourcing firm employees.

The overall finding of this study showed that GILS is having a high and positive impact on the supply chain efficiency of outsourcing firms. The research findings highlighted that the

organizational effectiveness of GILS is having a high and positive influence on supply chain efficiency through its impact on outsourcing firm supply chain reliability. In addition, the result also showed that relationship management also had a high and positive influence on supply chain efficiency through its impact on outsourcing firm speed and ability to create customer satisfaction with a mean value of 2.68. Furthermore, 52.5 % of respondents felt that among the performance indicators, service quality is having the highest and positive impact on outsourcing firm supply chain efficiency. This result was contrary to the finding of research done on Perception of Service Providers Vs Customers on Key Success Factors of Third Party Logistics Relationship, which showed that for all six measures (i.e. delivery performance, cost, warehouse management, order/inventory management, quality of service, and customer relationship) 3PL firms lag behind the expectations of their customers, though the difference or gap in the various performance measures is found to differ. There is a significant gap between the services required and those provided that poses a significant challenge to the 3PL industry. (Rajamony, Pugazhendhi, Ganesh, Ducq, Koh, & Muralidharan, 2011). Another research finding also indicated that its procurement processes were enhanced due to its effective assessment of 3PL providers' capacities resulting in minimal supply risk exposure. Accordingly, it concluded that the risk assessment strategy enabled the procurement process to become efficient. Which in turn allowed timely deliveries of requisitions and reduction of complaints, wastages, and damages (Sheikh & Rana, 2011).

The research findings also showed that service quality offered by GILS is positively affecting supply chain efficiency by allowing outsourcing firms realized cost efficiency. This result was contrary to the result that was obtained by research done in South Africa which showed that 45% of the respondents felt that cost efficiency was not realized (Beverley & Rose, 2011). On the other hand, the result found was compatible with the result obtained by the 2019 third-party logistics study where 72% of 3PL users and 95% of 3PL providers agree that the use of 3PLs has contributed to reducing overall logistics costs. (Langley, 2019).

Furthermore, the interview result of this study showed that by using GILS, the outsourcing firms were able to concentrate on main functions and the time sent on logistics was low. This

was considered as one of the impacts created by GILS that allowed outsourcing firms to gain a competitive advantage. This result was not the same as the result obtained by the south Africa research that showed, 38% felt that the time and effort which they spent on logistics had not been reduced. (Beverley & Rose, 2011).

In investigating the challenges faced in the industry and their impact on GILS performance, the research findings showed that the challenge of getting new talent was one of the greatest challenges faced by GILS which was comparable to other studies. The value obtained in percentage was lower than the value obtained by a 2019 annual Third-Party Logistics Study where 59% of respondents reported that attracting talent was a strong challenge faced by third-party firms (Langley, 2019). Furthermore, 60% of the employees of GILS agreed that the involvement of many parties to deliver the end-to-end service is one of the challenges faced by the firm. This result was compatible with the study that stated the challenges of collaboration between the supply chain parties is one of the challenges the industry is facing (Suwastika, 2017). On top of this, 55.5% of employees also responded that different rules implemented by countries to import and export goods were also the challenges faced by the industry. This result supported the other research result that indicated complexity or redundant customs formalities that delay clearance and create opportunities for unnecessary discretionary interventions it may lead to lag and inefficient logistics. (Temesgen, 2020).

The study also found that 36% of the respondents indicated that lack of infrastructure is one of the challenges faced in the industry. This result showed that lack of infrastructure is still one of the challenges faced but not highly sensed by the employees as compared to the research finding indicating infrastructure was the main challenge in the logistics industry (Fekadu, 2013). Lastly, the majority of the employees agreed that the challenges faced by the industry have a high impact on service quality among the performance indicators of the third-party logistics providers which were represented with a 0.60 standard deviation from the mean of the overall effect.

# **CHAPTER FIVE**

## **SUMMARY, CONCLUSION, AND RECOMMENDATION**

### **5.1. Introduction**

The study was intended to investigate 3PL service providers' performance in selected 3PL logistics service providers. Accordingly, this chapter briefly sums up the overviews of its main outcomes, the conclusion of the study, and recommendations concerning the identified findings.

### **5.2. Summary of the Findings**

According to the data analysis in the previous chapter, the summary of the findings is presented as follows.

- Most of the respondents agreed that service quality provided by GILS is highly and positively affecting outsourcing firms' supply chain through its impact on their firm's ability to realize cost efficiency.
- The majority of the suppliers and customers felt that the organizational effectiveness of GILS has a positive influence on supply chain efficiency through its impact on outsourcing firm supply chain speed and ability to create customer satisfaction.
- The majority of the suppliers and customers also responded that they agreed relationship management has a positive influence on supply chain efficiency through its impact on outsourcing firm supply chain reliability.
- The responses imply that, among the performance indicators, 52.5% of respondents agreed to the fact that GILS service quality has a positive overall impact on the ability of outsourcing firms to achieve supply chain efficiency.
- 60% of the respondents show their agreement that the involvement of many parties to deliver the end-to-end service is a challenge faced in the industry.
- The majority of the respondents (55%) also agreed that different rules implemented by countries to import and export goods are a challenge faced in the industry.
- Most of the respondents (36%) agreed that lack of talent is a challenge faced in the industry.

- The majority of the respondents (65%) disagreed or were neutral that lack of infrastructure was the challenge faced in the industry.
- The findings of the study also showed that standard deviation of 0.602 which implied that the majority of the respondents agreed on the challenges faced in the industry have a high impact on service quality than the other performance indicators.

### **5.3. Conclusion**

This study intended to investigate the third-party logistics providers' performance. This was analyzed by first, identifying how performance indicators are affecting the outsourcing firm supply chain efficiency. Second, it tried to identify major performance challenges faced by third-party logistics providers and then analyze which performance challenges have a direct influence on performance indicators of third-party logistics providers like service quality, organizational efficiency, and relationship management.

The study revealed that the performance indicators measured by service quality, organizational efficiency, and relationship management have a positive influence on supply chain efficiency with a stronger influence on the speed and cost-efficiency of the outsourcing firm supply chain efficiency parameters. It also showed that among the performance indicators service quality had a strong and positive impact on supply chain efficiency.

Furthermore, the study used non-infrastructure and infrastructure performance challenges and find out that, for the non-infrastructure performance challenges, the difficulty of getting new talent, the difficulty of providing information or report, the existence of different rules implemented by countries to import and export goods, lack of means to update expertise on the rules and regulation changes, involvement of many parties to deliver the end-to-end service and lack of collaboration between the parties involved in the end-to-end service were also the challenges faced by GILS while operating as a third-party logistics provider. Encounter to this, it also found out, lack of trust among the parties involved in the service delivery and inability to meet the specification of shippers in terms of packing, timely delivery, and customer service were not creating performance challenges. Finally, the study revealed that the identified

performance challenges had an impact only on service quality with high impact sourcing from the difficulty of getting new talents and providing information or report.

#### **5.4. Recommendations**

Based on the findings of the study the researcher forwards the following recommendations:

- GILS also needs to review its organizational effectiveness and relationship management ability to design a strategy that will allow the creation of significant and positive impact on the supply chain efficiency as the future of logistics highly depends on integration.
- GILS needs to also evolve to the next level of logistic service practice which is four-party logistics. This will enable it to benefit more from supply chain integration and remain efficient in the fast-evolving industry.
- The research has not identified challenges that strongly affect organizational efficiency and relationship management. Thus, further study can be conducted to make sure that these challenges are identified and then solutions are provided.
- This study was conducted focusing on one third-party logistics provider and the only description of the results was made without inferring the magnitude of the result. Thus, further study needs to be conducted to drive a conclusion on the significance of third-party logistics providers' performance influence on the outsourcing firm supply chain efficiency and identify which challenge is significantly affecting the third-party logistics providers' performance.

#### **5.5. Limitations of the Study and Direction for Future Research**

The current study has had some limitations. First, prior research studies that are relevant to this study were limited. That is, to cross-reference the result with previous studies especially in the Ethiopian context was difficult. On top of this, little research is done to assess the impact of third-party logistics providers on supply chain efficiency from a third-party perspective. The second limitation of the study was that the way the questionnaire was constructed hindered the researcher to conduct a thorough analysis of the results using inferential analysis. Thus, further

studies need to be conducted, to revise and address the issues missed by the current study. Finally, due to resource and time limitations, the research was conducted on one firm only which will not allow generalizing that the result represents the industry.

As the first study that described the third-party logistics providers' performance from its ability to create supply chain efficiency to outsourcing firm context and that highlighted performance challenges of third-party logistics providers in Ethiopia, the research only described the subject under study to provide insight into the matter without making any inferential analysis. Thus, future research can base this study to design theories and conduct inferential analysis to assess the strength of the impact created by third party industry on overall logistics performance.

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## APPENDIX I:

### Questionnaire for Supplier and Customers

My Name is Misekr Kassaye, and I am currently studying for a master's in Executive Business Administration at Addis Ababa University. I am researching to Investigate the Third-Party Logistics Provider Performance as Part of my partial fulfillment of a master's degree. The information given by you will be used purely for academic purposes and will be kept confidential. I will be very much grateful if you spare some time for answering the following.

#### Section A. Demographic Information

1. What is your gender? Male  Female

2. Please indicate your age

20-30 years old  31-40 years old  41-50 years old  >50 Years Old

3. What is the highest level of education you have completed? Select one.

Certificate  College Diploma  Bachelor's Degree

Master's Degree  Doctorate Degree

4. How Long have you worked in the logistics and supply Chain Industry?

1-5 years  5-10 years  11-20 years  > 20 years

**Section B. Structured Question**

5. Please indicate by ticking a box for the question regarding how the performance of **Green International Logistics service PLC (GILS)** as a Third-Party Logistics provider is affecting the supply chain efficiency of your firm.

**A. The Influence of GILS Service quality on Client or supplier firms' Supply Chain efficiency. Note that: - Service Quality = Tangible, Responsiveness, Reliability, Assurance, and Empathy**

1= Strongly Disagree, 2=Disagree, 3 = Neutral, 4=Agree, 5= Strongly Agree					
	Code				
	1	2	3	4	5
The service quality Provided by GILS is positively affecting the ability of the firm to achieve the desired speed in the supply chain process					
The service quality Provided by GILS is positively affecting the ability of the firm to achieve a reliable supply chain process					
The service quality Provided by GILS is positively affecting the ability of the firm to achieve the cost efficiency desired in outsourcing the service.					
The service quality Provided by GILS is positively affecting the ability of the firm to provide supply chain service that crate satisfaction to its customer.					

**B. The Influence of GILS Organizational effectiveness on supplier or Client firms' Supply Chain efficiency. Note that: - Organizational effectiveness = productivity, financial performance, market share, cycle time, customer service, reputation, and goodwill**

1= Strongly Disagree, 2=Disagree, 3 = Neutral, 4=Agree, 5= Strongly Agree					
	Code				
	1	2	3	4	5
The Organizational effectiveness of GILS is positively affecting the ability of the firm to achieve the desired speed in the supply chain process					
The Organizational effectiveness of GILS is positively affecting the ability of the firm to achieve a reliable supply chain process					
The Organizational effectiveness of GILS is positively affecting the ability of the firm to achieve the cost efficiency desired in outsourcing the service.					
The Organizational effectiveness of GILS is positively affecting the ability of the firm to provide supply chain service that crate satisfaction to its customer.					

**C. The Influence of GILS Relationship Management Ability on supplier or Client firms' Supply Chain efficiency.**

**Note that: - Relationship Management = guanxi (harmony between people and between ideas), trust and commitment among supply chain partners**

1= Strongly Disagree, 2=Disagree, 3 = Neutral, 4=Agree, 5= Strongly Agree					
	Code				
	1	2	3	4	5
The relationship management ability of GILS is positively affecting the capability of the firm to achieve the desired speed in the supply chain process					
The relationship management ability of GILS is positively affecting the capability of the firm to achieve a reliable supply chain process.					
The relationship management ability of GILS is positively affecting the capability of the firm to achieve the cost efficiency desired in outsourcing the service.					
The relationship management ability of GILS is positively affecting the capability of the firm to provide supply chain service that crate satisfaction to its customer.					

6. Which performance indicator is positively affecting the supply chain efficiency of your firm.

a. Service quality is offered by third-party logistics providers.

b. Organizational effectiveness of third-party logistics provider.

c. Relationship Management ability of third-party logistics provider.

**Section C. A non-structured question**

7. Please write down other third-party logistics providers' performance that is highly affecting the supply chain efficiency of your firm.

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8. Is GILS as a third-party logistics provider enabling your firm to gain a competitive advantage from supply chain efficiency? and how.

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## APPENDIX II:

### Questionnaire for Employees

My Name is Misekr Kassaye, and I am currently studying for a master's in Executive Business Administration at Addis Ababa University. I am researching to Investigate the Third-Party Logistics Provider Performance as Part of my partial fulfillment of a master's degree. The information given by you will be used purely for academic purposes and will be kept confidential. I will be very much grateful if you spare some time for answering the following.

#### Section A. Demographic Information

9. What is your gender? Male  Female

10. Please indicate your age

20-30 years old  31-40 years old  41-50 years old  >50 Years Old

11. What is the highest level of education you have completed? Select one.

Certificate  College Diploma  Bachelor's Degree

Master's Degree  Doctorate Degree

12. How Long have you worked in the logistics and supply Chain Industry?

1-5 years  5-10 years  11-20 years  > 20 years

## Section B. Structured Questions

13. Please indicate by ticking a box for the question regarding the challenge faced to gain new talents and provide information or report to the customer by green International Logistics service PLC (GILS).

1= Strongly Disagree, 2=Disagree, 3 = Neutral, 4=Agree, 5= Strongly Agree					
	Code				
	1	2	3	4	5
High Employee Turnover due to high demand for experts in the field.					
Long training need for new employees due to lack of educational background in the field.					
Lack of proper means of communication					
Lack of knowledge regarding the importance of information sharing					
Lack of right and on-time information from subcontracted suppliers of GILS.					
Absence of transparency from subcontracted suppliers of the GILS					
The cultural difference that exists between countries in door-to-door service.					
Different Linguistic that crates barriers to communication					
Lack of reporting system due to the high cost of obtaining efficient systems					

14. Please indicate by ticking a box for the question regarding other Performance Challenges faced by green International Logistics service PLC (GILS).

1= Strongly Disagree, 2=Disagree, 3 = Neutral, 4=Agree, 5= Strongly Agree					
	Code				
	1	2	3	4	5
Existing of different rules implemented by countries to Import and Export Goods					
Lack of means to update expertise on the rules and regulation changes.					
Involvement of many parties to deliver the end-to-end service					
Lack of collaboration between the parties involved in the end-to-end service					
Lack of trust among the parties involved in the service Delivery					
Inability to meet the specification of shippers in terms of packing,					

timely delivery, and Customer Service					
<b>Lack of Infrastructure</b>					
Bad road conditions and poor connectivity					
Inadequate air and seaport capacities					
lack of developed modes of transports such as railways, roadways, and inland water transport system					

15. Please indicate by ticking a box for the question regarding how challenges faced are affect the performance of GILS.

A. **Service Quality** =Tangible, Responsiveness, Reliability, Assurance, and Empathy

1= Strongly Disagree, 2=Disagree, 3 = Neutral, 4=Agree, 5= Strongly Agree					
	Code				
	1	2	3	4	5
The Challenge of Obtaining the right talent is affecting the Quality of Service Provided					
Lack of Proper reporting system is affecting Quality of Service Provided					
The existence of different rules and regulations implemented by the different countries is affecting the Quality of Service Provided					
The involvement of different parties in service delivery and lack of collaboration among them is affecting the Quality of Service provided.					
Inability to meet shipper's specification is affecting the quality of service provided					
Lack of infrastructure is affecting the quality of service provided.					

**B. Organizational Effectiveness** = Productivity, financial performance, market share, cycle time, customer service, and reputation, and goodwill.

1= Strongly Disagree, 2=Disagree, 3 = Neutral, 4=Agree, 5= Strongly Agree					
	Code				
	1	2	3	4	5
The Challenge of Obtaining the right talent is affecting Organizational Effectiveness.					
The lack of a proper reporting system is affecting Organizational Effectiveness.					
Existing of different rules and regulations implemented by different countries is affecting Organizational Effectiveness.					
The involvement of different parties in service delivery and lack of collaboration among them is affecting Organizational Effectiveness.					
Inability to meet shipper's specification is affecting Organizational Effectiveness					
Lack of infrastructure is affecting Organizational Effectiveness.					

**C. Relationship Management**= Guanxi, trust and commitment

1= Strongly Disagree, 2=Disagree, 3 = Neutral, 4=Agree, 5= Strongly Agree					
	Code				
	1	2	3	4	5
Challenge of Obtaining the right talent is affecting Relationship Management					
The lack of a proper reporting system is affecting Relationship Management.					
Existing of different rules and regulations implemented by different countries is affecting Relationship Management.					
The involvement of different parties in service delivery and lack of collaboration among them is affecting Relationship Management.					
Inability to meet shippers' specifications is affecting Relationship Management.					
Lack of infrastructure is affecting Relationship Management.					

**Section C. Non- Structured questions**

16. Please indicate any other challenge that is faced by GILS as third-party Logistics provides not cover the Above.

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17. Please indicate how the challenges you mentioned above are affecting the performance of GILS as third -party Logistics provider.

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### **Annex III: Interview Guide**

Research title: - Investigating the Third-Party Logistics Provider Performance.

Time of interview: - \_\_\_\_\_

Date: \_\_\_\_\_

Place: \_\_\_\_\_

Interviewer: \_\_\_\_\_

Interviewee: \_\_\_\_\_

Positions of interviewee: \_\_\_\_\_

The purpose of this study is to Investigate the Third-Party Logistics Provider Performance: - The case of Green International Logistics PLC. Your participation in the study is needed as it is valuable to get insight from Top Management in GILs. Your identity will remain anonymous as a participant and all information that is collected in this interview will be treated confidential and are only for research purposes. The interview will take approximately 15 to 20 minutes.

Questions:

1. How long have you been working in the logistics industry?
2. How do you view the service provided by Green international logistics service Plc (GILS) as one of the private third-party logistics providers?
3. What factors do you believe are affecting the performance of GILS as a third-party logistics provider?
4. From the above-mentioned factors which one does, you believe is significantly affecting the performance of GILS as third – party logistics provider.
5. Please indicate which of the above factors are creating positive or negative effects?
6. Do you think it is practical to use Service quality, organizational effectiveness, and effective relationship management as performance indicator of GILS (as a third-party logistics provider)? Please explain.
7. Which factors you mentioned above are directly affecting the firm’s ability to provide quality service, achieve organizational effectiveness, and its ability creating effective relationship management?

## **Annex IV: Interview Guide**

Research title: - Investigating the Third-Party Logistics Provider Performance.

Time of interview: - \_\_\_\_\_

Date: \_\_\_\_\_

Place: \_\_\_\_\_

Interviewer: \_\_\_\_\_

Interviewee: \_\_\_\_\_

Positions of interviewee: \_\_\_\_\_

The purpose of this study is to Investigate the Third-Party Logistics Provider Performance: - The case of Green International Logistics PLC. Your participation in the study is needed as it is valuable to get insight from supply chain experts getting service from GILS. Your identity will remain anonymous as a participant and all information that is collected in this interview will be treated confidential and are only for research purposes. The interview will take approximately 15 to 20 minutes.

Questions:

1. How long have you been working in the logistics industry?
2. Do you think the performance indicators of third-party logistics providers influence the supply chain efficiency of the outsourcing firm and or supplier? How?
3. If the answer to the above question is yes. Among the explained performance indicators in the GILS case which one is majorly influencing the supply chain efficiency of outsourcing firms and why?
4. Please indicate which element of supply chain efficiency is affected by which performance indicator in the GILS case and why.
5. Base on your understanding of the supply chain and logistics industry do you believe outsourcing the logistics service to GILS is enabling the outsourcing firm to achieve a comparative advantage through supply chain efficiency? please Explain

#### Annex IV: Open-end Question data on supply chain efficiency

<b>GILS Enabled customers and suppliers gain a competitive advantage through</b>	<b>Frequency</b>	<b>Percent</b>
Existing relationship GILS has with their partners or Customs Authority	6	40%
Avoidance of responding to the bureaucratic customs process	3	20%
Avoidance of dealing with a different party in the supply chain	2	13%
Gain Forex Wealth	2	13%
Cost Efficiency	1	7%
Focus on the main activity	1	7%
	15	100%

#### Annex V: Open End Question Data on Performance Challenge

<b>Other challenges faced and their impact on performance</b>	<b>Frequency</b>	<b>Percent</b>
Low payment to employees resulting in loss of valuable personnel to competition	10	50%
Lack of integration resulting in fault-finding behavior between supply chain partners	7	35%
Management delay inaction resulting in loss of trust	1	5%
Short term profit gaining mentality resulting in loss of contract	1	5%
Less equipped branches result in slow feedback to the client	1	5%
	20	100%