EFFECTIVENESS OF PRIVATE LOGISTIC COMPANIES IN TRANSPORTATION OF PROJECT EQUIPMENTS IN TANZANIA: A CASE OF PRIVATE LOGISTIC COMPANIES BASED IN ILALA MUNICIPALITY

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A DISSERTATION SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE OF MASTER OF PROJECT MANAGEMENT DEPARTMENT OF MARKETING AND ENTREPRENEURSHIP OF THE OPEN UNIVERSITY OF TANZANIA

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CERTIFICATION

The undersigned certifies that he has read and hereby recommends for acceptance by the Open University of Tanzania a dissertation titled: ***"Effectiveness of Private Logistic Companies in Transportation of Project Equipments in Tanzania: A Case of Private Logistic Companies Based in Ilala Municipality",*** in partial fulfillment of the requirements for the Degree of Master of Business Management Department of Marketing and Entrepreneurship of the Open University of Tanzania

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Dr. Raphael Gwahula.

(Supervisor)

……

Date

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DECLARATION

I, **Mashauri Ramadhani**, do hereby declare that this dissertation is my own original work and that it has not been presented and will not be presented to any other professional board for similar or any other degree award.

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Signature

…….

Date

DEDICATION

This research is dedicated to my country, Tanzania and all my fellow Tanzanians for their prayer and support in my life.

I love Tanzania.

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ABSTRACT

This study assess the effectiveness of private logistic companies in transportation of project equipments in Tanzania. A case of private logistic companies based in Ilala Municipality. Specifically to examine the drivers competence of private logistic companies in transportation of project equipments in Tanzania, the application of ICT in transaction documents to the private logistics companies in transportation of project equipments in Tanzania, to determine the challenges facing private logistic companies in transportation of project equipments in Tanzania. The study used a case study research design where by both qualitative and quantitative approaches to a population of MNH with sample size of 72 respondents. Questionnaires and Interviews, have been used as data collection tools, data analysis was done by using Microsoft Excel 2007 and Statistical Package for Social Science (SPSS). The study found that all national development programs hinge around efficient and effective private logistics transportation and logistics infrastructure and services. Therefore the challenge before us is to ensure that the transport sector grows at a faster rate than 20 that of the economy so that it does not slow down the growth of other sectors and the national economy at large. The study recommended that; Information technology (IT) has to become an essential part of the rapid and accurate transfer and processing of enormous volumes of data processed in international transport firms and port organizations. The SUMATRA and other road transport agency in the country should embark on regular education campaign to sensitize the road users on effective utilization of roads. Tan road should construct additional bus stops and expand those with narrow lay-byes to prevent packing and stopping at unapproved places.

Keywords: Private logistics companies in transportation of project equipments in Tanzania Ilala Municipality

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

LIST OF ABBREVIATIONS

3PL	Third Part Logistics
CLM	Council of Logistics Management
COGS	Cost of Goods Sold
DC	Distribution Centre
DMI	Dar-es-salaam Maritime Institute
DSO	Day Sales Outstanding
EAC	East Africa Community
EDI	Electronic Data Interchange
ERP	Enterprise Resource Planning
GDP	Gross Domestic Product
GVCs	Global Value Chains
IC	Institutional Change
IRP	Integrated Road Programme
IT	Information Technology
LLP	Lead Logistics Provider
MSc.PCM	Master of Procurement and Supply Chain Management
NCPDM	National Council of Physical Distribution Management
NGO'S	Non-Government Organizations
RRP	Railway Restructuring Project
TPA	Tanzania Port Authority
TPL	Third Party Logistics
TRA	Tanzania Revenue Authority

TRC	Tanzania Railways Company
TTFA	Trade and Transport Facilitation Audit
WMS	Warehousing Management System

CHAPTER ONE

INTRODUCTION

1.1 Introduction

This chapter comprises of background of the study, statement of the problem, research objectives, research questions, significance of the study, and organization of the research proposal, and limitation and Delimitation the study

1.2 Background of the Study

Organizations today are looking for opportunities to improve operational efficiencies and reduce cost without having a negative effect on customer service levels (Vinod, 2009). The truth is that transport costs represent a significant share of the final price in furniture industry. Three key drivers for performance in the supply chain: - Better quality/service - Lower transport costs - Faster transport time Here, lower transport costs mean cost efficient solutions, which could be reduced costs through larger volumes, lower use of fuel, lower demand for labor force etc. and lower external costs (Unrecovered costs in the market are technically known as "external" costs (or "externalities"), since they represent a cost to society which is not recovered through conventional market mechanisms Faster transport and higher transport quality (Grian, 2010).

Well-functioning logistics, both domestically and internationally, is a necessary precondition of national competitiveness (Arvis, et al., 2014). Global production networks depend on transport operations. This dependency affects a wide array of value-added activities along supply chains, from suppliers of raw materials to the end-

user, as well as the recycling of materials after use. Physical, administrative and informal restrictions are big obstacles to the movement of goods and international trade. Removing these barriers would have a greater impact on economic growth and competitiveness than removing tariffs.

According to a recent estimate by Ferrantino et al. (2013), the combined impact of improving border administration, and upgrading transport and communications infrastructure would increase global Gross Domestic Product (GDP) by 4.7%, six times more than what would result from a complete and worldwide elimination of tariffs.

In other words, trade and transport facilitation are at the core of stimulating economic development. There is also a strong reciprocity between the two: trade and transport facilitation fosters logistics performance, and better logistics supports growth, enhances competitiveness and enables investments. Political decisions and implemented policies have both direct and indirect effects on the attractiveness of a region or country in terms of business location decisions. A country is attractive when it has the aptitude to attract the foreign investors. In this sense, the volume of foreign direct investment (FDI) present in a territory is a good indicator of its attractiveness. Transportation systems are considered as a production factor and as one of the key determinants of facility location decisions. Transport infrastructure has a significant impact on the productivity and the cost structure of private firms (Haughwout, 2001). Empirical studies show that foreign direct investment is attracted to areas where transportation systems are more efficient (Saidi & Hammami, 2011). A sustained

improvement calls for policymakers and private stakeholders to implement comprehensive reforms. To move products to market efficiently and reliably, countries need to reduce trading costs and adopt policies to support trade, thereby helping to improve trade competitiveness. Even good physical connectivity does not compensate for poor service delivery. Infrastructure development has been essential in assuring connectivity and access to trade and transport gateways. Yet countries have been more successful with certain types of infrastructure. ICT infrastructure quality, in particular, has improved rapidly across the world. Conversely, rail infrastructure inspires general dissatisfaction. Ratings for other types of infrastructure vary by region (Arvis, et al., 2014).

Transport is part of the economic activity, which is associated with an increase in the degree of satisfaction of people and businesses by changing the geographical location of goods and people. Transport - means of satisfying needs through transportation of goods and passengers. Transportation - one of the key logistics functions associated with moving goods vehicle on a particular technology in the supply chain, consisting of logistics operations and functions, including forwarding, cargo handling, packaging, and transfer of ownership of the goods, risk insurance, customs procedures, and so on. From an economic point of view, transport is one of the defining elements of the production process. The production and use of goods, there are two limiting factors - the time factor and the spatial factor, (Sarkisov, 2001).

The time factor is that the product produced today may only be required after a certain period. Solve this problem by storing. The content of the spatial factor is that the producers and consumers of goods are rarely found in one place, and some distance

from each other. Linking production and consumer, transport allows expanding the boundaries of production. Transport itself becomes gradually because the spatial factor - the development of transport and transport technology allows you to build further away from the production sites of consumption goods. Under market conditions, transport is always profitable, (Sarkisov, 2001).

More generally, logistics performance is strongly associated with the reliability of supply chains and the predictability of service availability. Supply chains are becoming more and more complex, as they often span many countries. Comprehensive reforms and long-term commitments from policymakers and private stakeholders will be essential to keep up with the changing world. Supply chain sustainability concerns among shippers and logistics providers appear to grow in line with complexity. In the LPI 2014, for example, about 37 per cent of respondents shipping to OECD countries recognized a demand for environmentally friendly logistics solutions, compared with just 10 per cent for low-income destinations (Arvis, et al., 2014).

Genpact, (2014) Commented that, The Transportation and Logistics Industry trends are lead indicators of economic performance. This industry is on a path of recovery from the global slowdown however they are still facing challenges in: Reducing total cost of operations without impacting service levels, Asset and talent utilization - Low tonnage, backlogs, YOY logistics cost deflation demand from shippers and a shrinking pool of supply chain and logistics professionals, Logistics Network performance - Non Standard and discontinuous approach to logistics performance measures, and dynamic changes in network design, Global supply chain and logistics

visibility and efficiencies, Cash flow and Day Sales Outstanding (DSO) improvements..

Kweka, (2004) explain the situation of the transport sector in Tanzania as follow, existing evidence suggests that producers in sub-Saharan Africa often face a transport disadvantage against their competitors. Though the size and nature of this disadvantage varies from country to country, the international transport costs margin seems to be higher for imports than for exports. However, internal transport costs incurred in getting exports from production areas through ports and out of the country, and imports from their point of entry into the country to producers and consumers, is in most cases a more serious source of competitive disadvantage than inter-country transport costs (UNCTAD, 1999).

Furthermore, high international and internal transport costs reduce returns to producers in Africa as they typically sell at a given world price set in hard currency. By many standards, the transport sector in Tanzania is poor, inefficient and highly inadequate. The sector has averaged about 5% of GDP over 1990-2002, declining from 8% in the early 1980s, although the share of government spending allocated to infrastructure development has been relatively small. TANROADS (the national road agency) and the Road Fund Board have been formed to oversee implementation of these programs.

As regards railways, TRC have been implementing a number of major restructuring programs including the Railway Restructuring Project (RRP) in 1991 and Institutional Change (IC). These measures have impacted favorably on the performance of the

railways and enhanced their commercial status, making them attractive candidates for privatisation. Similar restructuring and reforms are being implemented by TAZARA. In the case of the Port Authority, the DSM Port Development Programme coordinated by the World Bank started in 1985, and in 1994 the authority adopted a commercialization strategy, which has been slowly implemented since then. Liberalization of the domestic air transport industry for wider participation of the private sector started in 1992. Tanzania's transport policy does not explicitly address trade concerns but has focused on reforms that could lead to reductions in transport costs.

In logistics activities, transportation stands at one of the most important positions. Transportation takes the responsibilities and tasks of transferring goods from one place to another or more in different spaces. It solves the problems of separation between suppliers and customers and it is a main functional element that logistics creates space effect. Meanwhile, transportation acts a role as a bridge to connect the relationships among different cities, countries, regions and international logistics development, (Wiley & Sons 1985, 120).

Tanzania face challenges on transport and logistics mainly on obstacles to intermodal transport, Lack of physical and information infrastructure, Lack of standardization, Lack of intermodal service information, and Lack of competition in the rail sector but the focus of this study will be on effectiveness of private logistics companies in transportation of product in Tanzania. In Tanzania, there is a major challenge of moving product from the point of production to consumption which the study will observe by making an interview and questionnaires among the logistics stake holders

including logistics companies such as HOTRIEF CO LTD, AMI CO LTD, SAI CO LTD and SAS CO LTD, Logistics officers from TBL, TANROAD, and SUMATRA. The study will assess the effectiveness of private logistic companies in transportation of products in Tanzania. Today companies and logistics stakeholders are challenged to streamline their transportation and logistics management processes to maximize effective and efficiencies delivery time of products, customer satisfaction and profit margins. Effective logistics transportation is the solutions that result to the entire closed-loop transportation process from long-range strategies and operational planning to day-to-day execution and implement transportation plans driven by consumer demand and replenishment policies, Control costs and streamline productivity, Leverage logistics to support profitable growth, Improve trading partner relationships with effective collaboration.

1.3 Statement of the Problem

Logistics transportation of project equipments in Tanzania is still not effective due to poor quality road infrastructure, traffic jams in the road, poor information and communication systems and high transportation and distribution chargers, all these are barriers hinder the effectiveness of logistics transportation of project equipments in Tanzania. There is inadequate logistics and transportation human capacity, Inadequate Investment infrastructure, Inadequate Capacity at the ports in Dar es salaam, Inadequate and Poorly Maintained Infrastructure, Inadequate Capacity of the Railway Transport, Inadequate Capacity of the Road Transportation, Inadequate adaptation and integration of the of ICT technology in Ilala and lack of the competent drivers .All this result to difficult in logistics transportation of project equipments in Tanzania.

Several researches that have been carried out aimed at making general description of the role of transportation in logistic efficiency in industry growth to increase productivity of goods and services. The study by Kweka, (2004) Titled Trade Policy and Transportation Costs in Tanzania with the objective on trade and transportation cost in Tanzania, The studies on trade policy for low-income countries have established that high transport costs associated with poor quality infrastructure in countries such as Tanzania represent a barrier to trade and an additional source of protection to domestic producers of import competing goods. American journal of scientific and industrial research (2011) with the title Transport and logistics research and its impact on capacity building of local institutions in Nigeria. The findings show that the prevailing road environment is often different with climatic factors having a considerable influence on design and performance. Motorcycles, pedal cycles and various forms of non-motorised transport compete with cars, trucks and pedestrians for the use of the available road space, resulting in situations in which the most vulnerable road users are often particularly at risk.

In Tanzanian context, there are few studies or literature focused on logistic transportation of products in manufacturing industries. Therefore, the present study aims at to assess the effectiveness of private logistic companies in transportation of products in Tanzania, specifically focusing on competence of the drivers of private logistics companies in transportation of products, CT application in transaction documents and car tracking to the private logistics companies in transportation of products and challenges facing private logistics companies in transportation of products.

1.4 Research Objectives

1.4.1 General Objective

The general research objective of this study was to assess the effectiveness of private logistic companies in transportation of project equipments in Tanzania.

1.4.2 Specific Objectives

(i) To examine the drivers competence of private logistic companies in transportation of project equipments in Tanzania.

(ii) To assess the application of ICT in transaction documents to the private logistics companies in transportation of project equipments in Tanzania.

(iii) To determine the challenges facing private logistic companies in transportation of project equipments in Tanzania.

1.5 Research Questions

(i) How competence of drivers of the private logistic companies in transportation of project equipments will contribute to the effectiveness of private logistic companies?

(ii) What is the role of ICT application in effectiveness of private logistic companies in transportation of project required equipments in Tanzania?

(iii) What are the challenges facing private logistics companies in transportation of project equipments in Tanzania?

1.6 Significance of the Study

This study would be significant in the following aspects:

The study would raise the awareness among the logistics and transportation stakeholders on how to overcome the challenges of project equipments transportation by private logistic companies' transportation currently faces.

The study would be beneficial to the researcher as it is the partial requirement for the award of the Masters degree in Project Management. Furthermore, the study would provide a basic ground for other researchers on the challenges that logistics transportation stakeholders face especially in the application of ICT infrastructure in logistics and transportation of products

1.7 Organization of the Research Report

This research report was organized into three chapters. Chapter one consists of background of the study, statement of the problem, research objectives, research questions, significance of the study, and organization of research proposal. Chapter two includes definition of the key terms and concepts, theoretical literature review, empirical review and conceptual framework. Chapter three include research design, research philosophy, description of the study area, measurement of variables, data collection methods, sample and sample size, distribution and procedure, sampling techniques, validity and reliability of data and management and analysis of data.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter focus on the review of related literature, starting with theoretical perspective, conceptual framework, empirical related studies and finally research gap on the effectiveness of private logistic companies in transportation. Ndunguru, (2007) indicates clearly that, theoretical literature deals with the scientific definitions of the major concepts describing the phenomenon being studied, literature review, empirical literature involve the review of what has been done to solve or address the illogical or contradicting relationship in the phenomenon,

2.2 Definition of Concepts and Terms

2.2.1 Logistics

Logistics is the process of strategically managing the acquisition, movement and storage of materials, parts and finished inventory from suppliers though the firm and on to customers. It requires right product in the right place at the right time. Christopher, (1994) Logistics is part of supply chains. It connects the relationship between producing and consumption. It is essential for planning and operating a distribution system successfully.

The objectives are supplying the right products to the right places at the right times for the least costs. Logistics appears with the development of the economy and the appearance of goods and products, therefore logistics a traditional and old economic activity.

2.2.2 Transportation

Logistics involves a movement of goods from point-of-origin to point-of-consumption. This kind of activity is called transportation. Transport is responsible for the physical movement of materials between points in the supply chain. It moves a company's products to markets at a certain long distances due to geography factors. Another main function is for warehousing in a short time. There are some major business decisions affected by transportation, like product decisions, market area decisions, purchasing decisions, location decisions and pricing decisions. (Waters 2003, 309) Transportation service has some characteristics. One of the most important impacts of transportation is customer service and the most important transportation service characteristics are dependability, time-in-transit, market coverage, flexibility, loss and damage performance and the ability of carrier. There are a lot of methods for transporting goods from one place to another one or other areas, such as rail, air, water, pipelines, motor, (Waters 2003, 310). Here researcher was focused on road transportation; a well transportation system will bring an efficiency and effective logistic in any company or industry.

2.2.3 Distribution

In the manufacturing context, this research has explored strategic facility location, capacity planning (sizing), and production allocation problems, in which the use of fixed and mobile manufacturing facilities are considered simultaneously. Such problems frequently occur at the strategic planning level of industries such as chemical process plants, industrial gases, etc. A related research project involves studying the challenges associated with using automated guided vehicles that transport

products in manufacturing facilities. In the distribution context, the research has explored integrated distribution center selection and space requirement problems on a two-stage network where products are shipped from plants to distribution Centre's, and then delivered to retailers to minimize total inbound and outbound transportation costs and total distribution center construction costs.

2.2.4 Supply Chain

Arntzen et al, (1995) commented that, Supply chain contains the word "supply", many people naturally assume that supply chain must have something to do with suppliers (i.e. purchasing or procurement). While it is true that supply chain management does encompass the purchasing and procurement functions, supply chain management actually extends well beyond those areas. Supply chain management is the practice of manufacturing and distributing physical goods as efficiently as possible. Supply chain management encompasses the entire process of manufacturing and distributing physical goods, from supplier's supplier to customer's customer. Or, stated more simply, supply chain management includes the functions: plan, buy, make, store, move, sell and return.

2.2.5 Equipments

In manufacturing, equipments are bought as raw material and sold as goods, in marketing, equipment is anything that can be offered to a market that might satisfy a want or need. In retailing, products are called merchandise. Also equipment can be in terms of services like in hospital. Services can be broadly classified under intangible equipment, which can be durable or non-durable. Services need high quality control,

precision and adaptability. The main factor about services as a type of equipment is that it was not be uniform and was vary according to who is performing, where it is performed and on whom/what it is being performed.

2.3 Theoretical Literature

2.3.1 Supply Chain Management Theory

The Supply Chain Management theory is very useful in this study as it explains in details on the challenges facing logistics transportation and provides the brief guide line on the study as it explain in the important elements of supply chain where equipments comes from and goes on which logistic transportation is evolved to ensure the equipments are delivered on time to satisfy customers need and hence growth of the companies (Christopher, 1992). Also in this theory the concept of decoupling point, which refers to a stock between production, and consumption, which is indispensable to meet the consumer needs in terms of type, quality, quantity, and timing of the sale of the equipments it is very usefully as it increase customers demand on equipments hence improvement of companies in Tanzania.

The geographical diversity of trade and manufacturing requires an extension of the scope of logistics management beyond the boundaries of firms to include suppliers and customers. This refers to supply chain management. A supply chain is the network of organizations that are involved, through upstream and downstream linkages, in the different processes and activities that produce value in the form of products and services in the hands of the ultimate consumer (Christopher, 1992). The important elements in the supply chain may be simplified as “who”, “what”, “where”,

"how", and "when". From the natural resources to the final products ready for use by consumers, what matters is to answer all the questions: who does it, what he does, where it comes from and goes, how and when it is done. At each chain of supplies, processing, storing, and handling take place, and transportation links between the chains.

Philips Electronics of the Netherlands introduced the concept of 'decoupling point' in logistics chains. The decoupling point refers to a stock between production and consumption, which is indispensable to meet the consumer needs in terms of type, quality, quantity, and timing of the sale of the products. The research undertaken by Philips recognized that those customer needs were ultimately unknown factors for the supply chain participants. Therefore, it was useful and essential to identify how far the penetration of customer order went through the upstream of supply chain with regard to each element of variation of goods and its auxiliary services. This concept of customer order decoupling point suggests an effective way to the optimization of supply chains (Roos, 2000).

In other words, the postponement of decoupling point as close as possible to the sale of the goods to the consumers can minimize inventory costs, but, on the other hand, it may lead to a higher production cost due to a lesser degree of mass production to take place (Schary et al, 2001).

2.4 Empirical Literature Review

This research report was supported by various empirical reviews, which support the research problem as observed below:

2.4.1 Foreign Studies

Research done by Srinivas (2006) with the title the role of transportation in logistic chain Alluri Institute of Management Science Warangal, A.P., INDIA. With general objective of define the role of transportation in logistics for the reference of further improvement. The research was undertaken to define and comprehend the basic views of logistics and its various application and relationships between logistics and transportation, due to petroleum price rise in 1973, the effects of logistics activities on enterprises grew. Slow growth of market, pressure of high stagflation, release of transportation control and competitions of the third world on products and materials all increased the significance of logistics system on planning and business at that time. The further tendency of logistics in the early 21st century is logistics alliance, Third Party Logistics (TPL) and globalized logistics. Logistics circulation is an essential of business activities and sustaining competitiveness, however, to conduct and manage a large company is cost consuming and not economic.

Therefore, alliance of international industries could save working costs and cooperation with TPL could specialize in logistics area. The role that transportation plays in logistics system is more complex than carrying goods for the proprietors. Its complexity can take effect only through highly quality management. By means of well-handled transport system, goods could be sent to the right place at right time in order to satisfy customers' demands. It brings efficacy, and also it builds a bridge between producers and consumers. Therefore, transportation is the base of efficiency and economy in business logistics and expands other functions of logistics system. In addition, a good transport system performing in logistics activities brings benefits not only to service quality but also to company competitiveness.

Haoqi Zhou, (2010) conducted research titled Towards Efficient Road Transport in Logistics Operations: A Case Study of IKEA China with the purpose of this research is to explore the role of road transport in logistics operations, and to investigate and analyze how IKEA China does operate on road transport in logistics operations. A single case study has been conducted at IKEA China, including semi-structured interviews and review of internal documents. Along with the case study, literature reviews have been conducted within the areas of efficient road transport in logistics operations. Findings, The IKEA China case suggests that the logistics operations should have strong link to the efficient road transport in a manner optimized logistics operations can provide efficient road transport with less cost.

So the solutions and proposals about efficient road transport might not be adopted by other companies or be applied to other parts of the supply chain. Additionally, a study of efficient road transport can be discussed, analyzed and studied from a lot of different perspectives, even much better in a holistic viewpoint. Here, the authors just choose a few primary perspectives as research objectives to support this study, which concerns the data and information collected from IKEA China. Finally, because of the limitation of time and personal knowledge, the data collected from IKEA China may neither abundant enough nor deep enough in a manner without exploiting and expanding into all the issues and challenges refers to efficient road transport in logistics operations.

American journal of scientific and industrial research (2011) with the title Transport and logistics research and its impact on capacity building of local institutions in Nigeria The paper through descriptive analysis sought to explain the needs for

transport and logistics research, issues and benefits in transport research The paper is theoretical in nature; hence methodology approach was specifically descriptive, such that the philosophical presupposition of the concepts underlying the major tenets of transport and logistics research. This is predicated on the fact that transport and logistics problems in developing countries require local solutions that are inherently different from those in more developed countries. The prevailing road environment is often different with climatic factors having a considerable influence on design and performance. Motorcycles, pedal cycles and various forms of non-motorised transport compete with cars, trucks and pedestrians for the use of the available road space, resulting in situations in which the most vulnerable road users are often particularly at risk.

However, research has proved to be effective in devising innovative and cost-effective solutions for the provision of access and the facilitation of transport services that meet the need for safe, sustainable access and greater mobility for the poor in developing countries. Over 5 decades after achieving independence, Nigeria still rely on developed nations to conduct the research required to solve their problems in the transport sector. The provision of the relatively small amount of funding needed for researching solutions would appear to be a sound investment for the nation.

It is in the light of this that the paper attempt to give examples of the benefits from investment in research in the transport sector, describes programs designed to facilitate innovation and research in the sector in developing countries, identifies the research need and suggests ways in which donors and recipient country organizations can assist in establishing a framework for carrying out research. If countries display a

commitment in developing a research capacity, then development agencies committed to transport and research are more likely to provide initial support. For this to happen, there must be a clear demand by the partner government for assistance and an unremitting commitment to its future. What has to be avoided is a situation where the partner country reverts to its previous position when donor support is withdrawn. The basic factors required for creating the environment for sustainable research are not likely to be significantly different from those suggested for the sustainability of other projects. Politically supported, socially acceptable, institutionally embedded and environmentally sustainable.

According Georg et al (2012) with titled Success factors and cost management strategies for logistics outsourcing a case study of manufacturing plant's with the objectives of investigates the relationship between logistics outsourcing and the plant's cost performance through empirical data analysis. In particular, the paper identifies the conditions for which logistics outsourcing improves performance, that is, the main success factors associated with logistics outsourcing. The paper investigates the influence of outsourcing these logistics activities on COGS, which comprises all labour, materials and overhead cost at the plant. In this way, this research adopts a broad view of the impact of outsourcing on cost. The unit of analysis in this study is the manufacturing plant. Additionally, the model investigates eleven moderating factors; structure, strategy, supplier integration, volume and product mix, industry, year, ERP, EDI, TMS, WMS and collaborative forecasting. Four contextual factors were also used in this study; plant age, plant size, type of ownership, and the degree of unionization.

Research done by Shinohara (2006) with titled An explorative and comparative study of the dynamics of logistics management a case study at European and Japanese logistics paradigms, with the general objective to explore different ideas of logistics in different cultural setting. Research tools used were surveys by the way of interviews and questionnaires and observation. The concept and practices of European logistics management have been standardized through the development of cross-border cooperation and coordination of the education system in the framework of the European Union. In its process, direct involvement of religions drastically diminished in Europe, with the function of labour in the logistical innovation becoming more and more limited and knowledge concentrating on the management side. However, the underlying value system of governance based on logicality seems to have high level of permanency, which is based on the philosophical education dating back to the Hellenism, and egalitarianism and fairness, whose origin is found in the Christianity. In Japan, some signs are detected that the Japanese style of logistics management.

According to research done by Institute of Trade Development final draft report titled develop a Logistics Performance Survey Index (LPI) for the Kenya Shippers Council: REF. KSC/KM/01 (2012). This report was designed to provide a logistic performance index in East Africa. The existing logistics and the indicators are examined, with the objectives of examining the logistics situation in East Africa for both the ports and the corridors, key logistics indicators at various levels of the logistic systems in EAC, challenges encountered by cargo owners along the logistic systems, benchmarks the performance of the EAC logistic systems with those of other regions globally and what need to be done to enhance the performance of the logistics systems in the EAC.

The study methodology involved reviewing of various studies in the field of logistics within EAC and other countries, like China, Canada, and African countries.

The study was also carried out in Nairobi, Mombasa, Busia, Malaba, Tanzania, Uganda and Rwanda. Challenges and Implication Affecting Logistics in EAC. Inadequate human capacity, Inadequate Investment, Inadequate Capacity at the ports in EAC, Inadequate and Poorly Maintained Infrastructure, Inadequate Capacity of the Railway Transport, Inadequate Capacity of the Road Transportation, Inadequate adaptation and integration of the of ICT technology in EAC and the other ICT challenge is lack of full integration of the ICT systems at EAC regional level. Implication of the Challenges, The logistics challenges in EAC region has contributed to high cost of transport and doing business and has led to competitiveness of the region as compared to other parts of the world. Due to high costs of logistics in EAC, manufacturing industries have moved out of the region to other competitive areas. If the logistics challenges are not addressed, the growth of the economies will be affected; employment creation and poverty reduction will continue to be unattainable.

2.4.2 Local studies

Research done by Kweka, (2004) Titled Trade Policy and Transportation Costs in Tanzania with the objective on trade and transportation cost in Tanzania, The studies on trade policy for low-income countries have established that high transport costs associated with poor quality infrastructure in countries such as Tanzania represent a barrier to trade and an additional source of protection to domestic producers of import competing goods. Using the analytical framework applied by Milner et al (2000) to

Uganda, this study reports results for Tanzania on transport costs as a barrier to trade. The estimates are used to identify sectors most vulnerable to transport costs. The results shows that although substantive trade policy reforms have succeeded in lowering average tariff levels and associated protection, transport costs increase the level of protection for almost all sectors; notably Beverages and Tobacco, cash crops, manufactured foods and building materials.

In addition, decomposition of disprotection (taxation) effects on exports shows that measures to reduce transport cost burdens on exporters are essential to improve export performance for Tanzania. Simulation of the protection effects under the new EAC Customs Union shows that overall the level of tariff protection may increase but any adverse impacts could be offset by greater efficiency at Customs and ports and additional investment to reduce infrastructure-related transport costs.

This paper reports the results for protection due to trade and transport costs in Tanzania. The high transport costs associated with often-inadequate infrastructure add to transaction costs, creating a barrier to trade and additional protection to domestic producers of import competing goods. The estimates are used to identify sectors most vulnerable to high costs of transport. The results shows that trade policy reforms have lowered the protection due to Tanzania's trade regime. There has been a modest decline in the effective rate of protection from an average of 19% in 1995 to 11% in 2001. The effective rate of protection due to transport costs fell on average from 10% in 1995 to 5% in 2001. Transport costs represent an implicit tax on exporters. On average, domestic transport costs are relatively smaller share (nearly one third) of the

total than international transport costs (72%) incurred on exports. The effective tax on exports increased from 24% in 1995 to over 35% in 2001, implying that, ceteris paribus, the competitiveness of Tanzanian exports was reduced. Much of the taxation effects are due to non-policy (natural) limitations (i.e. poor transport infrastructure). Initiatives to enhance Tanzania's export competitiveness may require selective policy actions to improve transport and distribution efficiency and reduce costs.

2.4.3 Research Gap

Despite considerable research, studies focusing on the effectiveness of private logistic companies in transportation of project equipments in Tanzania. Much of prior scholarly research has mainly focused transportation and logistics, the study by Srinivas (2006) with the title the role of transportation in logistic chain Alluri Institute of Management Science Warangal, A.P., INDIA. With general objective of define the role of transportation in logistics for the reference of further improvement. Haoqi Zhou, (2010) conducted research titled Towards Efficient Road Transport in Logistics Operations: A Case Study of IKEA China with the purpose of this research is to explore the role of road transport in logistics operations, and to investigate and analyze how IKEA China does operate on road transport in logistics operations, American journal of scientific and industrial research (2011) with the title Transport and logistics research and its impact on capacity building of local institutions in Nigeria.

According Georg et al (2012) with titled success factors and cost management strategies for logistics outsourcing a case study of manufacturing plant's with the

objectives of investigates the relationship between logistics outsourcing and the plant's cost performance through empirical data analysis and Research done by Kweka, (2004) Titled Trade Policy and Transportation Costs in Tanzania with the objective on trade and transportation cost in Tanzania. Most of this study were conducted out of Tanzania where it environment economically and socially defer from Tanzania especially in Ilala Municipal in Dar es Salaam. Therefore, the present study assess the effectiveness of private logistic companies in transportation of products in Tanzania, specifically focusing on the driver competence, application of ICT in transaction and challenges facing private logistic in Tanzania

2.5 Conceptual Framework

Conceptual framework is the logical structure consisting of concepts that are placed within a logical and sequential design, represents less formal structure and used for studies in which existing theory is inapplicable or insufficient Abdellah (2011). Conceptual framework provides filtering instrument for selecting suitable research questions and related data gathering methods (Vaughan, 2008).

Independent variable is the variable that stands alone and is not changed by the other variables you are trying to measures whereas dependent variable is something that depends on other factors. Competence of Drivers, ICT Application in the Transportation Documents and Car Tracking, and Challenges Facing Private Logistic Companies in Transportation of Product. However this research will be dealing with one dependent variable, which is effectiveness of Private Logistic companies in transportation of products.

Independent variables **Dependent Variable**

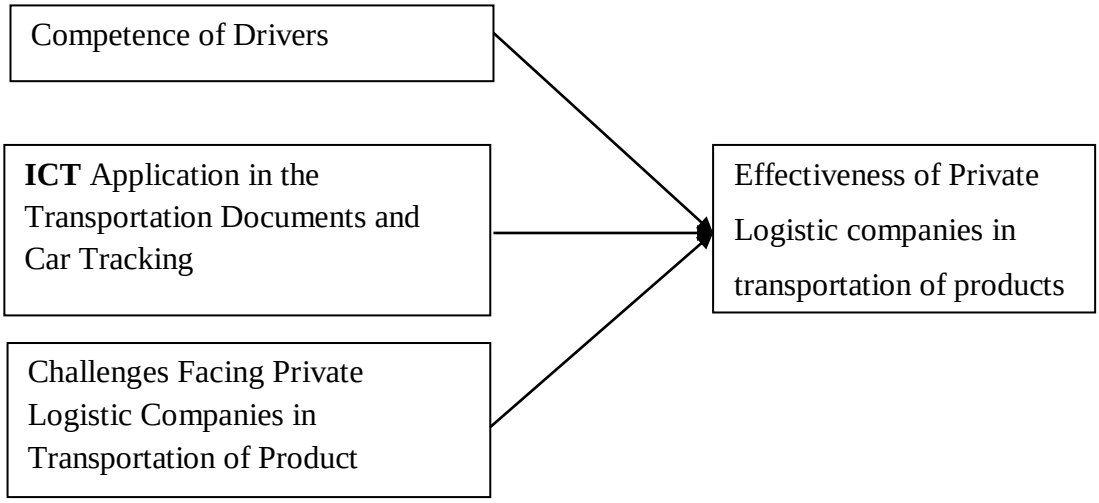

Figure 2.1: Conceptual Framework

Source: Researcher (2019)

Personal competence it is the level of applying one's capabilities. Personal competence is determined not by knowledge, but rather by employee's personal characteristics. The effectiveness of private logistics companies can be attained through having competence Drivers, the use of ICT application in the Transportation, but all these can be limited to other factors. This model explains the relationship between the dependent and independent variables and explains how the objective of the study was achieved.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter describes the research approach, study area, the sample and sampling procedures, methods used for data collection and their administration. The chapter describes the ways in which different types of data used and analyzed. Therefore, research methodology consisted of research design, types of measurement, data collection instruments, sample and sample size, sampling procedure, data collection sites or location, area of study, reliability and validity, data management and analysis.

3.2 Research Design

Research design involves a discussion of when, where, how and why the research is going to be started and accomplished (Kothari, 2014). The case study research design will be used during this study. The case study approach is applicable where the researcher gets an opportunity to study the problem in depth within a limited timescale (Kothari, 2014). The case study design gives the researcher room to concentrate on specific schools and identify the various interactive processes at work.

Descriptive research involved in gathering data that described events and then organized, tabulated, depicted, and described the data collected (Orodho, 2005). Descriptive research often uses visual aids such as graphs and charts to aid the reader in understanding the data distribution. Because the human mind cannot extract the full import of a large mass of raw data, descriptive statistics are very important in reducing the data to manageable form. When in-depth, narrative descriptions of small numbers

of cases are involved, the research uses description as a tool to organize data into patterns that emerge during the analysis. Those patterns aid the mind in comprehending a qualitative study and its implications.

3.3 Research Philosophy

Research philosophy refers to the beliefs, assumptions and opinions that influence the ways through which research studies are conducted (Berg, 2004). The most common research philosophies include the positivism philosophical approach and interpretivism. The philosophical approach is mainly focused on observations, which is the followed by a critical analysis through statistical methods.

Moreover, for this research philosophy, the beliefs of the researcher bear no significance and have no influences on the overall results of a research study. Positivism philosophical approach also involves the use of sampling methodology, to draw a representation of the area of study, after which, conclusive results are presented for generalization purposes. Interpretivism on the other hand, is merged with constant influence of the research processes by a researcher's set of beliefs, values and attitudes.

As a result, the researcher plays a very important role in justifying a study's objectives. In assessing effectiveness of private logistic companies in transportation of project equipments among the stakeholders includes logistics companies, a mixed research philosophy; interpretivism and positivism philosophical approach was practiced. The use of interpretivism research philosophy in this study is competence of derivers and the use of ICT, (Berg, 2004).

3.4 Target Population

Population refers to the larger group from which sample is taken (Kombo and Tromp, 2006). The target population for this particular study will be comprised private logistic companies in transportation of project equipments among the stakeholders includes logistics companies such as HOTRIEF CO LTD, AMI CO LTD, SAI CO LTD and SAS CO LTD, TBL, TANROAD, SUMATRA in Tanzania. Their involvement in this study was based on the fact that they are expected to provide data in terms of their experience and views on matters regarding private logistic companies.

3.5 Area of the Study

The study was conducted at Ilala municipality to identify the effectiveness of private logistic companies in transportation of project equipments among the stakeholders includes logistics companies such as 15 participant from HOTRIEF CO LTD, 25 participant from AMI CO LTD, 15 from SAI CO LTD and 10 from SAS CO LTD, 10 participants from TBL, 10 participant from TANROAD, 15 from SUMATRA in Tanzania making a total of 100 participants, specifically focusing on competence of drivers of private logistics companies in transportation of products in Tanzania, Application of ICT in transaction documents to satisfy customer requirements, challenges facing private logistics companies transportation of products in Tanzania based on private logistic companies in Ilala Municipality. Ilala Municipality was particularly selected by researcher because it will be simple to collect data from Ilala municipality since it have lot of logistics companies, more office as most of the companies and organization selected they are involved with transportation such as Tanroad office, Sumatra office and Tanzania breweries limited company, which make

it easier for the researcher to collect and access data and information which are needed in the research questions so as to get the solutions of the problem. Researcher will be able to collect data to people with the knowledge of the study area of the research and get true data and easy for the researcher to analyze them.

3.6 Sample Size and Sampling Techniques

3.6.1 Sample Size

According to Barbie (1992pp.82) sample is defined as a segment of population in which researcher is interested in gaining information and drawing conclusion. Sampling is a set of act, process or technique of selecting a suitable sample or a representative part of a population for the purpose of determining parameters of characteristics of the whole population. Generally, is the design which minimizes bias and maximizes the liability of the data collected and analyzed is considered a good design. In this study the sample size used respondents from private Logistics companies includes HOTRIEF CO LTD, AMI CO LTD, SAI CO LTD and SAS CO LTD, Logistics officers from TBL, TANROAD, and SUMATRA. Hairet et al, (2014) provides a simplified formula to calculate sample size. This formula was used to calculate the sample size for horticultural SMEs and is shown below where;

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

Where by

n = Sample size

N = Population

e = Level of Precisions (Level of tolerance = 0.05)

1 = Constant

$$n = \frac{100}{1 + 100\,(.05^2)}$$

$$n = \frac{100}{1 + .25}$$

$$n = \frac{100}{1.25}$$

=80

The application of the abovementioned formula gives us a sample size of 80 participants

3.6.2 Sampling Techniques

The sample for this study was drawn from the population through purposive, and random sampling techniques.

3.6.2.1 Purposive Sampling

In this study, purposive sampling was for the purpose of obtaining information from the right people who were ready to assist at large in coming up with valuable data, which was valid and reliable when tested under the same conditions. Also the sample size was reasonable and attainable to use purposive sampling since it is not too large and only the researcher is interested to get information from the respondents who are knowledgeable with the subject under study. It involved the selection of individuals who were the most appropriate for the study. Basing on the nature of the study, not all logistic stakeholders could be in position to provide relevant information on the effectiveness of private logistic companies in transportation of products in Tanzania.

Purposive will be used to top management that is 1 transport officer and 1 human resource manager from 7 companies, that is 14 participants

3.6.2.2 Random Sampling

Random sampling was applied to select sample size constitute respondents from private Logistics companies includes 13 participants from HOTRIEF CO LTD, 8 from AMI CO LTD, 13 from SAI CO LTD and 8 from SAS CO LTD, Logistics officers from 8 from TBL, 8 participants TANROAD, and 8 from SUMATRA were randomly selected to get a total number of 66 participants from 7 private logistics companies in Ilala districts.

Table 3.1: Sample Frame and Sample Size Logistics

Name of Companies	Target Population	Sample of Participants	Sampling Techniques
TBL	10	10	8 Random sampling 2 Purposive sampling
TANROAD	10	10	8 Random sampling 2 Purposive sampling
SUMATRA	15	10	8 Random sampling 2 Purposive sampling
HOTRIFCO LTD	15	15	13 Random sampling 2 Purposive sampling
AMICO LTD	25	10	8 Random sampling 2 Purposive sampling
SAI CO LTD	15	15	13 Random sampling 2 Purposive sampling
SAS CO LTD	10	10	8 Random sampling 2 Purposive sampling
Tatol	**100**	**80**	80

Source: Researcher (2019)

3.7 Data Types

Kothari, (2004, p.95) contributed that there are two types of data namely primary data and secondary data on which the researcher should keep in mind. In order for the researcher to be effective and reliable in bringing good value of the data to be collected the researcher employed both primary and secondary data.

3.7.1 Primary Data

The primary data are those which are collected afresh and for the first time (Kothari; 2005), these are the sources of information on the dependent as well as independent variables in the study. The researcher administered questionnaires and interviews to all stakeholders in logistics transportation. These types of data give the researcher relevant and first hands information to the study.

3.7.2 Secondary Data

Secondary data are data that are already available and refer to data that have already been collected and analyzed by someone else (Kothari; 2005). Secondary data will be obtained through documentary review, which include published and unpublished documents, Journals, reports. This type of data will help the researcher to identify the existing knowledge on logistics transportation.

3.8 Data Collection Instruments

Kombo and Tromp (2003) data collection methods refer to gathering specific information aimed at providing some facts. The researches Instruments that were used by the researcher were three sources that are used to collect data for this study. These techniques of data collection included of questionnaires, interview and documentary

review. The sample of this study comprised individuals from logistics transportation agency officers and private logistics companies.

3.8.1 Questionnaire

Saunders (2007 pp.43), in this study the questionnaire is the main instrument for data collection. Suggests that, the researcher adopted the questionnaire because it is fast, cheap; it give the respondents enough time to reflect on the questions. Since each respondent is asked to respond to the same set of questions, it provides an efficient way of collecting responses from a large sample prior to quantitative analysis. Churchill, (2004). The questionnaire comprised open-ended questions which allowed the interviewees to respond freely to the subject in their own words rather than being limited to choosing from a set of alternatives. They were distributed to individual respondents to react and respond to the question.

3.8.2 Interview

Kothari (2004,) define Interview as a method of collecting data that involves presentation of oral-verbal stimuli and reply in terms of oral-verbal responses. The use of interviews helped the researcher to gather valid and reliable data that were relevant to the research questions and objectives. Interview were conducted to logistics offices and logistics companies to explore information on how the organization ensures effectiveness of logistic transportation of products in Tanzania so as to attain the effectiveness of private logistic companies in transportation of products in Tanzania. To overcome challenges facing logistics transportation of products and to know the way forward to solve solution for outstanding logistic transportation problems of

products in Tanzania. Logistics officer and logistics company's representatives was interviewed.

3.8.3 Documentary Review

Saunders, et al. (2000) explained that documents are secondary form of data collected and stored by organizations or governments so as to be used by externals who are interested with those data to use in any relevant area to which can fit, these includes articles, income statements of the organizations, government manuals, reports that are concern with logistics transportation were reviewed and has added a lot in this study etc.

Basing on this method, the documents of the Organization such as documents relating to logistics transportation process were reviewed, include the logistics transportation contract, journals, handout files; this was done by the researcher to collect secondary data for more references and clarification on the study.

3.9 Data Reliability and Validity

The researcher obtained reliable data and those collected data were tested to ascertain their validity.

3.9.1 Data Reliability

Saunders, (2007) defined reliability is the extent to which data collection technique yields consistent findings. It is the degree to which an instrument measures the same way each time under the same condition. The researcher tested or estimated the reliability of information collected from Tanzania Breweries Limited on effectiveness

of logistics transportation of products in manufacturing industries through grouping questions in a questionnaire in two groups of respondents being given exactly the same questions of the same concept to each group. Paton, (2001) states that, these were two factors, which any qualitative researcher should be concerned about while designing a study, analyzing results and judging the quality of the study. The researcher assured high degree of accuracy of this proposed study through selecting the sample from a true representative of population and used the current documents of the company to ensure validity of information to be collected.

3.9.2 Data Validity

Validity is referring to whether the index /instruments is describing what is intended to be described or measured. It is ability to which result of the study can be verified against the stated objectives (Janny, 2005).

The researcher conducted pilot study before administering research questionnaires to check the level of accuracy and make correction where mistake raised this ensured that respondent wouldn't feel bored when respond to question and also assured that the questions were un ambiguous. Also the researcher in some areas made purposeful selection of staff so as to ask a reasonable personal to provide some specific information so as to ensure he asks a right person.

3.10 Data Analysis

The data analysis procedure for this research therefore comprises the analysis of both the qualitative and the quantitative data.

3.10.1 Qualitative Data Analysis

The first step in qualitative analysis is data to be transcribed and reading the interview transcripts (Hohenthal, 2006). During this time, notes would be written and tentative ideas were developed about categories and relationships, as this is considered an important phase in the analysis .The categorization is achieved through coding and thematic analysis. According to Eriksson & Kovalainen (2008) categorization helps to identify patterns of data that lead to theory development. Theoretical categories are addressed and the categorization forms the basis for the conclusions. Thematic analysis were considered well-suited for this study due to the *a priori* concepts and preset questions that need to be addressed (Hayes & Preacher, 2014; Vinzi et al., 2010). The codes which will emerge from the data collected will be highlighted and then categorized with different text highlights.

3.10.2 Quantitative Data Analysis

The following statistical techniques were employed with the aid of SPSS (version 20) to test and examine the research hypotheses;

3.10.2.1 Descriptive and Inferential Statistical Analysis

Descriptive statistical analysis was used to provide insights into the sample structure and demographic variables, as a way of defining the respondents by using graphical analysis, namely: cross-tabulations, frequency tables, measures of central tendencies and dispersions to provide summaries in a meaningful way (Oke et al., 2012; Bergman, 2008; Saunders et al.,2016). Inferential analysis was employed to assess whether the relationships revealed by the descriptive analyses are scientifically acceptable.

3.10.2.2 Cronbach Alpha

Cronbach alpha was applied to assess the reliability of the scales developed in the survey instrument. Where reliability was defined as the degree to which a variable was dependable in what it is intended to measure, reliability relates to the consistency of the measure. The reliability of the variables were measured before the regression analysis.

CHAPTER FOUR

DATA INTERPRETATION, ANALYSIS AND DISCUSSION OF FINDINGS

4.1 Introduction

The purpose of this chapter is to present, analyse and discuss the research findings of the current study, which was carried out in, Dar es Salaam on the effectiveness of private logistic companies in transportation of products in Tanzania. The chapter focuses on the results obtained from interviews and questionnaires administered during the data collection at the selected private logistic companies in transportation of products in Tanzania. Documentary review and observations were also used to obtain the findings. Lastly this chapter presents discussion of the major findings of the study in respect to the objectives and research questions relating to previous literature available. The objectives of the study were: to examine the drivers competence of private logistic companies in transportation of project equipments in Tanzania, the application of ICT in transaction documents to the private logistics companies in transportation of project equipments in Tanzania, to determine the challenges facing private logistic companies in transportation of project equipments in Tanzania. The results from the analysis could be applied as an integral assessment for all institutions, companies and organization, on how to improve the service offered by private logistics companies in transportations.

4.2 Response Rate

Response rate refers to the number of people who responded to the questionnaire and interviews given to the respondents. This study had a total number of 80 questions and interview that were conducted to respondents, 72 were returned, giving a response rate

of 90.0%. This response rate can be attributed to the data collection procedures, where the researcher pre-notified the potential participants and applied the drop and pick method to allow the respondents ample time to fill the questionnaires.

Table 4.1: Response Rate

Questionnaires and interview administered	Questionnaires and interview filled and returned	Percentages
80	72	90%

Source: Field Data, 2019

4.3 Socio-Demographic Characteristics of the Respondents

The characteristics of the respondents were based on sex, age distribution, education level, and employment and working experience.

4.3.1 Gender of the Respondents

The results in Figure 4.1 indicate that 59.7% of the respondents were male and 40.3% of the respondents were female. The study was interested to use gender in order to get balance between male and female.

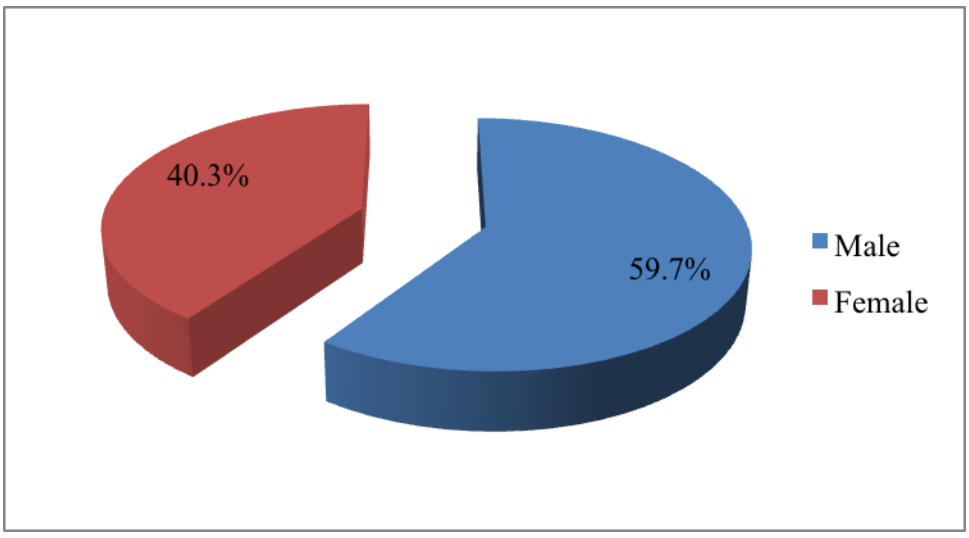

Figure 4.1: Gender of Respondents

Source: Field Data, 2019

The findings from Figure 4.1 shows that male were 59.7% and 40.3% were female this has implication that most of the people that researcher managed to interrogate were male due to the reason that, most of the logistics companies are dealing with transportation of products outside the countries and outside the region so most of the drivers are male who are able to travel outside his family for few days, There were fewer females are in the management and other operation within the companies,

4.3.2 Age of the Respondents

The study results in Figure 4.2 indicates that, age group between 46 – 55 years were 48.6% of the respondents; 36 – 45 years were 37.5% of the respondents; 18 – 36 years and above 55 1were 6.9% of the respondents. The results showed that majority of the respondents were young age between 46-55 years.

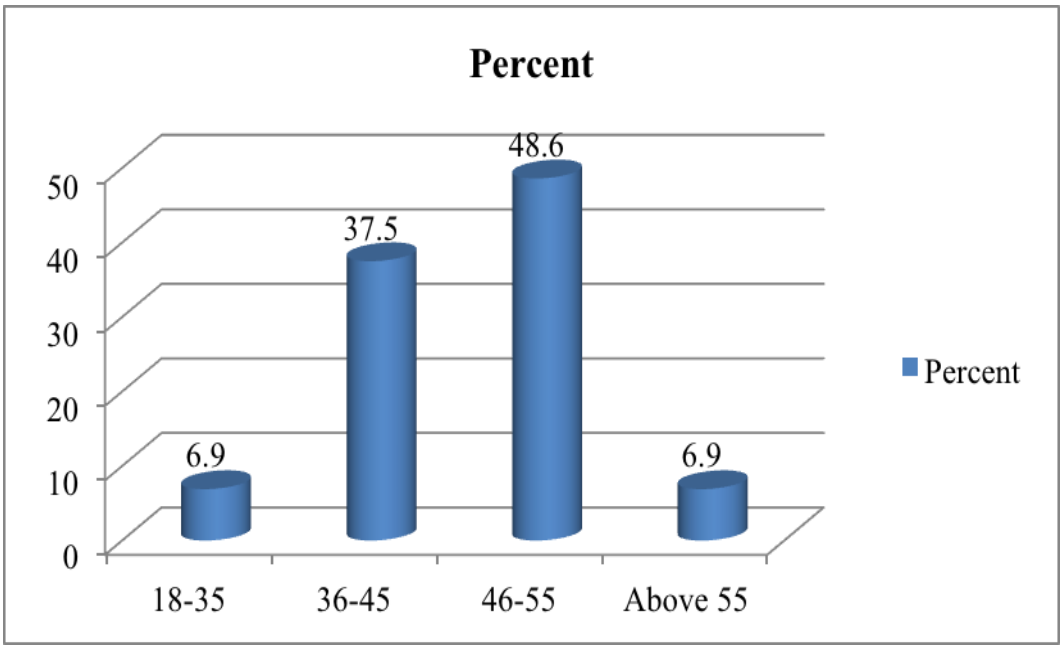

Figure 4.2: Age of Respondents

Source: Field Data, 2019

The findings in Figure 4.2 indicate that most of the respondents 48.6% were of the age between 46 – 55 years followed by those with 36-45 years. From the age distribution age wise it is determined that the Dar es Salaam city have the ability of someone to work, with heavily and can contribute in the increasing efficiency of performance.

4.3.3 Education level of Respondents

The question was asked to the respondents on their education level, the findings indicate that most of the respondents were secondary levers followed by 27(37.5%) of respondents who were primary levers and only 5(6.9%) of respondents who had college level of education

Table 4.2: Education Level of the Respondents

	Education Level	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Primary	27	37.5	37.5	37.5
	Secondary	40	55.6	55.6	93.1
	Colleges	5	6.9	6.9	100.0
	Total	**72.0**	**100.0**	**100.0**	

Source: Field Data, 2019

The findings in Table 4.2 indicate that (55.6%) of respondents had secondary level of education. This implied that due to the results entail that most of the respondents are skilled and knowledgeable hence their responses are to be relied upon due to the fact that, they are capable of understanding various related to challenges private Transportation in Tanzania.

4.3.4 Years of Operation of Respondents

The respondents were asked about their occupation. The findings show that 48.8% of respondents were unemployed, 34.7% of respondents were self employed and 16.5% of respondents were employed (Table 4.5).

Table 4.3: Years of Operation of Respondents

Years of Operation		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1-5	5	6.9	6.9	6.9
	6-10	27	37.5	37.5	44.4
	11-15	35	48.6	48.6	93.1
	Above 15	5	6.9	6.9	100.0
	Total	**72**	**100.0**	**100.0**	

Source: Field Data, 2019

The findings from Table 4.3 shows that all respondents of the targeted sample size differed in the years of operations as 6…10years comprise 46.7%have more experience in operating logistics and transportation companies and their companies growth is increased since their products are widely distributed and gaining more profit, 11-15 years comprise 30% also have more experience in operating logistics and transportation companies but there is no companies growth because there is more competitors raised as years go on with the new technology application such as online documentation and car tracking which will lead to wide distribution of products within a short time and customer satisfaction, and also new logistics and transportation companies are raised as observed above their fewer logistics and transportation emerged with 1-5 years of operation which comprise of 23.3%.

4.5 To Evaluate Competence of the Drivers of Private Logistic Companies in Transportation of Products in Tanzania

The first objective of the study intended to evaluate competence of the drivers of private logistic companies in transportation of products in Tanzania. The following questions were asked in relation to this objective.

4.5.1 Effectiveness of Private Logistics Companies Lead to the Growth of Industrial Sector in Tanzania

The question was posed to the respondents on the effectiveness of private logistics companies lead to the growth of industrial sector in Tanzania. The findings show that 52(72.2%) of respondents agree that there is Effectiveness of private logistics companies lead to the growth of industrial sector in Tanzania and 15(20.8%) of respondents were not aware and there is no effectiveness of private logistics companies lead to the growth of industrial sector in Tanzania

Table 4.4: Effectiveness of Private Logistics Companies Lead to the Growth of Industrial Sector in Tanzania

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	52	72.2	72.2	72.2
	No	15	20.8	20.8	93.1
	Not Aware	5	6.9	6.9	100.0
	Total	**72.0**	**100.0**	**100.0**	

Source: Field Data, 2019

The findings from Table 4.7 shows that 38 (63.3 % of the respondents responded yes to show that effectiveness of private logistics companies, lead to growths of industries

in Tanzania as the response show, compared to 20.8% who responded no in relation to 6.9 % who responded by not aware. This shows that wherever there is effectives of private logistics companies the transportation of goods the end results is customer satisfaction and increase and improve the business doing. As goods will be available on time consumed well and the industries can keep on producing as there will be a constant circulation of and flow of goods to the market and customer satisfaction will be enhanced.

4.5.2 Effectiveness of Private Logistics Companies in Transportation of Product in Tanzania can it be Achieved through having Competent Drivers?

The respondents were asked about the effectiveness of private logistics companies in transportation of product in Tanzania can it be achieved through having competent drivers.

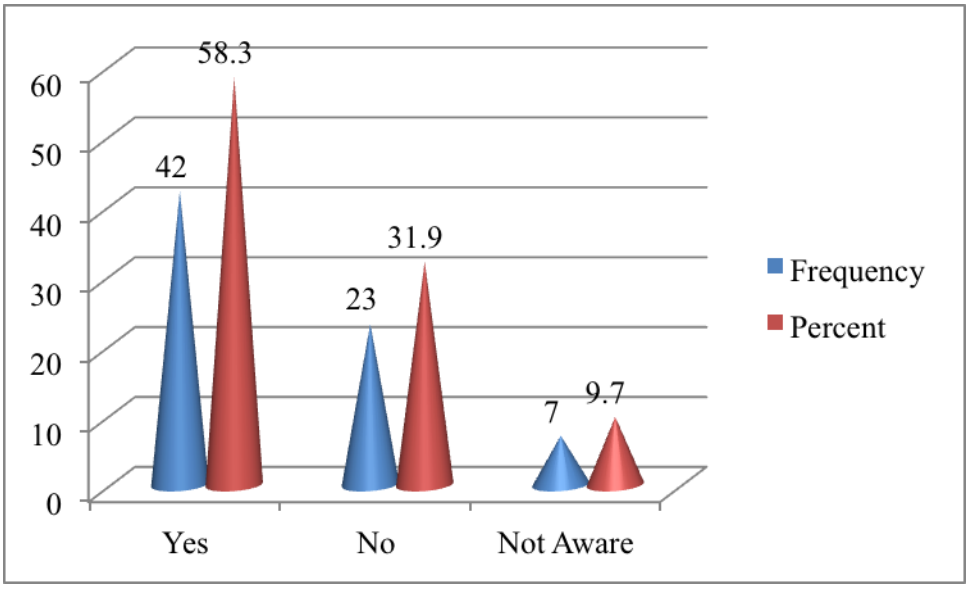

Figure 4.3: Effectiveness of Private Logistics Companies in Transportation of Product in Tanzania can it be Achieved through having Competent Drivers?

Source: Field Data, 2019

The findings indicate that 41(58.3%) of respondents agree that competent of drivers lead to effectiveness of private logistics companies in transportation of product in Tanzania through having competent drivers, 13(21.7%) of respondents said there is no effectiveness of private logistics companies in transportation of product in Tanzania through having competent drivers and 6(10.0%) of respondents were not aware of it (See Figure 4.3).

The findings from Figure 4.3 shows that majority of the respondents comprise of 68.3% agree that effectiveness of private logistic companies in transportation of products in Tanzania can be achieved through having competent drivers who are well trained in a recognized institution such as NIT who can obey rules and symbols which are used in the roads so as can avoid unnecessary accidents which may lead to cost the companies, and the one with the knowledge of ICT so as can be able to apply ICT application on transaction of documents which help to simplify the process of documentation, 21.7% of the respondents were said NO, on the sense that most of the drivers are not going to the driving institution and are just having skills of driving and very fewer comprise of 10%were not aware about competent drivers to bring effectiveness of private logistics companies in transportation of products, they know that drivers are the same regardless he/she known how to drive a car.

This has an implication that the companies that has competent drivers are more effective than those who are not, as the competent drivers play the vital role in the private logistics companies.

4.5.3 Competence of Drivers Increases the Number of Customers, Delivery Time and having Customer Satisfaction

The question was posed to the respondents on the competence of drivers of private logistics companies in transportation of products increases the number of customers, delivery time and having customer satisfaction, the findings show that 42(70%) of respondents agree that there is competence of drivers of private logistics companies in transportation of products increases the number of customers, delivery time and having customer satisfaction and 9(15%) of respondents were not aware and disagree of Competitiveness of drivers of private logistics companies in transportation of products increases the number of customers, delivery time and having customer satisfaction

Table 4.5: Competence of Drivers Increases the Number of Customers, Delivery Time and having Customer Satisfaction

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	45	62.5	62.5	62.5
	No	23	31.9	31.9	94.4
	Not Aware	4	5.6	5.6	100.0
	Total	**72.0**	**100.0**	**100.0**	

Source: Field Data, 2019

The findings from Table 4.5 shows, the response from Drivers on Competence of drivers of private logistics companies in transportation of products increases the number of customers, delivery time and having customer satisfaction the effectiveness of logistics transportation to customer satisfaction show that those who responded yes were 70% to mean that there is Competence of drivers of private logistics companies in transportation of products increases the number of customers, delivery time and

having customer satisfaction. Compared to those who responded No and not aware were 15% each. The implication is that customer are satisfied with the trend of logistics transportation as they never get product on time and some time there no customer complains on delivery time and, no shortage of products.

Responding on this question officer from TANROAD responding that:

> *Companies today are challenged to streamline their transportation and logistics management processes to maximize efficiencies, customer satisfaction and profit margins. Effective logistics transportation is the solutions that result to the entire closed-loop transportation process from long-range strategies and operational planning to day-to-day execution and implement transportation plans driven by consumer demand and replenishment policies, Control costs and streamline productivity, Leverage logistics to support profitable growth, Improve trading partner relationships with effective collaboration*.
>
> *Other responses from SUMATRA, on the question responded that Based on our experiences in working with numerous companies, we have seen that a significant portion of customer dissatisfaction is caused through the use of less than optimal logistics systems. At the same time, by designing an optimal logistics system, costs can be reduced significantly, while maintaining or improving customer satisfaction levels. So wherever there is effective logistics transportation it results to growth of industry, customer satisfaction and more growth of companies and all sector of Business. But an effective logistics transportation lead to high customer service levels do come at a cost and, usually, increased service levels translate into increased logistics costs in terms of inventory, transportation and investments in supporting systems.*

4.6 To Examine the Application of ICT in Transaction Documents and Car Tracking to the Private Logistics Companies in Transportation of Products in Tanzania

The second objective from this research report intended to examine the application of ICT in transaction documents and car tracking to the private logistics companies in transportation of products in Tanzania. Questions were asked to the respondents so as to fulfill this objective.

4.6.1 ICT Application in Transaction of Documents and Car Tracking Lead to Effective Private Legists Companies in Transportation

The respondents were asked if ICT application in transaction of documents and car tracking lead to effective private legists companies in transportation of products at the company and increases the number of customers, delivery time and having customer satisfaction. The findings show that 55(76.4%) of respondents agree that ICT application in transaction of documents and car tracking lead to effective private legists companies in transportation of products at the company and increases the number of customers, delivery time and having customer satisfaction, 11(15.3%0 of respondents said no and 6(8.3%) of respondents were not aware of ICT application in transaction of documents and car tracking lead to effective private legists companies in transportation of products at the company and increases the number of customers, delivery time and having customer satisfaction.

Table 4.6: ICT Application in Transaction of Documents and Car Tracking Lead to Effective Private Logists Companies

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	55	76.4	76.4	76.4
	No	11	15.3	15.3	91.7
	Not Aware	6	8.3	8.3	100.0
	Total	**72.0**	**100.0**	**100.0**	

Source: Field Data, 2019

The findings from Table 4.6 imply that as 38(63.3%) of respondents agree that ICT application in transaction of documents and car tracking lead to effective private logistics companies in transportation of products at the company and increase the

number of customers, delivery time and having customer satisfaction. ICT is the key for logistics companies for now days. Company use ICT application in transition of documents and car tracking to enhance effectiveness of private logistics companies in transportation of product.

One of the interviewee stated that:

> *Most of private logistics private company use **Electronic Data Interchange:** Electronic Data Interchange (EDI) refers to computer-to-computer exchange of business documents in a standard format. EDI describe both the capability and practice of communicating information between two organizations electronically instead of traditional form of mail, courier, & fax. The benefits of EDI are: Quick process to information, Better customer service, reduced paper work, increased productivity, Improved tracing and expediting, Cost efficiency. Competitive advantage and improved billing.*

4.7 To Determine the Challenges Facing Private Logistic Companies and the Way Forward in Transportation of Products in Tanzania Facing Private Logistic Companies in Transportation of Products in Tanzania

Third objective intended to find out the challenges to determine the challenges facing private logistic companies in transportation of products in Tanzania facing private logistic companies in transportation of products in Tanzania. Question related to this objective were asked to the respondents.

4.7.1 Challenges Facing Private Logistics Companies in Transportation of Products in Tanzania

The question was asked to the respondents about the Challenges facing private logistics companies in transportation of products in Tanzania. The findings show that 47(65.3%) of respondents agree that there are Challenges facing private logistics companies in transportation of products in Tanzania, 22(30.6%) of respondents said

there is no any challenges facing private logistics companies in transportation of products in Tanzania and 3(4.2%) of respondents were not aware.

Table 4.7: Challenges Facing Private Logistics Companies in Transportation of Products in Tanzania

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	47	65.3	65.3	65.3
	No	22	30.6	30.6	95.8
	Not Aware	3	4.2	4.2	100.0
	Total	**72.0**	**100.0**	**100.0**	

Source: Field Data, 2019

The findings from Table 4.7 shows that the there are challenges facing private logistics transportation of products in Tanzania' as 65.3% of respondents big challenges that face private logistics companies in transportation of product that it is very difficult to isolate is the effects of congestion from other disturbances to companies" logistical schedules. Congestion-related delays were often amplified by booking-in systems. Vehicles arriving late at a Distribution Centre (DC) and missing their timetabled slots had often to queue until the next available slot. Several of the DCs are working at or near full capacity and there was little slack in their inbound schedules. Most of the DCs suffering significant disruption as a result of congestion.

In the others, congestion-related delays are relatively infrequent and could generally be accommodated within normal work schedules. Most congestion are regular and predictable. It can be comfortably accommodated by building extra slack into delivery schedules, usually involving the commitment of extra resource in vehicles

and drivers. This is supported by Kuipers and Rozemeijer, (2006) in the Netherlands has attempted to measure the sectoral variation in sensitivity to the reliability of travel times. From focus group discussions with panels of experts it identified a set of eight factors which affected this sensitivity: -Rapid depreciation of the products, Rapid depreciation of the process, Stock-keeping strategy, Stringent customer service requirements, Irrationality, Supply chain-power, Direct influence of the end-customer / agility and Width of time-windows / continued disruption down the supply chain.

The list of factors differs from ours partly because it relates to the whole logistics operation rather than simply the warehousing operation. It attaches more importance to the distribution of power in the supply chain and customer expectations. There is, nevertheless, some overlap between the two classifications (e.g. stock-keeping strategy and width of time-windows).

The study distinguished regular delays from major congestion incidents‟ (MCIs) and differentiated several degrees of disruption in terms of their resource implications and the consequences for activities further down the supply chain. The vast majorities of congestion-related delays were relatively short and could be buffered within the warehouse with minimum additional resource expenditure. The most vulnerable operations were cross-docking operations carried out within a 2-3 hour time frame. Short-term redeployment of staff from other activities could usually recover the situation.

None of the companies consulted were unable to quantify the impact of congestion on warehouse operating costs. Most of the managers reckoned that any additional costs

would be very small. Congestion appeared to be having little or no influence on inventory levels and was only marginally inflating labour costs. It had had little bearing on companies‟ investment decisions in the areas of materials handling and IT. Senior management of two companies indicated that greater importance was being given to congestion in the strategic planning of distribution systems. As new DCs had a typical life of 20-25 years, long term trends in traffic levels and road conditions had to be considered.

The interviews conducted to transport and Logistics officers Agency TANROAD and SUMATRA agree that there are challenges facing private logistics transportation companies of products in Tanzania' one of the officers said,'

> *Among the key challenges facing the sector in general include shortage of Financial resources for transport infrastructure development and maintenance; decline in the quality of offered transport services, inadequate road and railways networks and dysfunctional aerodromes at regional and district headquarters'.*

The situation of transport and logistics networks in Tanzania as responded by one of the officers from Sumatra said:

> *Transport and logistics is a critical input to the development of other sectors of the economy and all stakeholders themselves. All national development programs hinge around efficient and effective transport and logistics infrastructure and services. Therefore the challenge before us is to ensure that the transport sector grows at a faster rate than 20 that of the economy so that it does not slow down the growth of other sectors and the national economy at large.*

4.7.2 Solution for Challenges Facing Private Logistic Companies in Transportation of Products in Tanzania

4.7.2.1 Good road Transport and Lack of Traffic Jams

The question was asked to the respondents on the way forward to the challenges facing private logistics transportation of product in Tanzania The findings show that 56(77.8%) of respondents agree that good road transport and lack of traffic jams can be a solution to the challenges facing private logistics transportation of product in Tanzania 9(12.5%) of respondents said no and 7(9.7%) of respondents were not aware

Table 4.8: Good Road Transport and Lack of Traffic Jams

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	56	77.8	77.8	77.8
	No	9	12.5	12.5	90.3
	Not Aware	7	9.7	9.7	100.0
	Total	**72.0**	**100.0**	**100.0**	

Source: Field Data (2019)

The findings from Table 4.8 indicate that good road transportation and lack of traffic jams is a solution to the challenges. This implied that Good road Transport and Lack of traffic jams is the among the ways to solution of having effective private logistics companies in transportation of products in Tanzania, as there be easy and on time delivery of goods and services among the logistics and transport stake holders and lead to the growth of the economy and industries in Tanzania. As compared to 12.5% who responded No to mean that Good road transport and lack of traffic jams cannot be the solution to effective logistics transportation, most of them were not familiar with the challenges of logistics and are young in this industry and in comparison to those who responded Not aware were 9.7 % same as those who said No, as shown in the Table 4.8.

One of the interviewee stated that:

> *Road transport and lack of traffic jams can lead to the improve of logistics transportation, in comparison to those who said not aware were just 15% of the whole population this represent the few respondents who were an decided.*

4.7.2.2 Government and Logistics Transportation Stakeholders Support Private Logistics Companies to Improve the Situation

The respondents were asked if government and Logistics Transportation Stakeholders Support private logistics companies to improve the situation. The findings show that 52(72.2%) of respondents agree that government and Logistics Transportation Stakeholders Support private logistics companies to improve the situation, 12(16.7%) while 8(11.150 of respondents were not sure.

Table 4.9: Government and Logistics Transportation Stakeholders Support Private Logistics Companies to Improve the Situation

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	52	72.2	72.2	72.2
	No	12	16.7	16.7	88.9
	Not Aware	8	11.1	11.1	100.0
	Total	**72.0**	**100.0**	**100.0**	

Source: Field Data (2019)

The findings from Table 4.9 indicate that 72.2% of respondents agree that government and Logistics Transportation Stakeholders Support private logistics companies to improve the situation This implied that there is a need for the government and other stake holders to work together in improving logistics transport for the betterment of the economic growth of the country, growth of industries, and for the customer satisfaction.

One of the officers from TANROAD responded *that l*

> *Lack of traffic jams and improvement in transportation efficiency can influence cost of doing business, travel time, forecast reliability, comfort, safety and security of commuters. The direct benefit of an efficient and effective transportation system reflects in the reduced travel time which translate sin to cost saving, increase in output and ultimately GDP.*

The officers from SUMATRA stated that:

> *Travel reliability is critical to some business sectors, especially those that deal with perishable goods as well as those that rely on just-in-time (JIT) deliveries. That is, to some businesses, productivity growth is underpinned by what they termed as predictable and time critical deliveriesso effective transportation system increases productivity in terms of job creation, reduction in business operation cost, improved output, expanded market and increase in economic competitiveness.*

CHAPTER FIVE

SUMMARY OF FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

The purpose of this chapter is to provide a summary of findings, conclusion and recommendations of the study in terms of the data, which have been collected and analyzed with regard to the research questions and objectives.

5.2 Summary of Findings

The study aimed to assess the effectiveness of private logistic companies in transportation of products in Tanzania. In this study the researcher adopted the following specific objectives, to evaluate competence of the drivers of private logistic companies in transportation of products in Tanzania. To examine the application of ICT in transaction documents and car tracking to the private logistics companies in transportation of products in Tanzania. To determine the challenges facing private logistic companies in transportation of products in Tanzania.

The Research methodology concerned about data collection was employed and the study included 72 respondents whereas sampling techniques and methods of data collection (Primary data and secondary data) were employed. Data analysis was done whereby tables were drawn by using special program known as SPSS. The researcher presented analysis and discussed the findings of the study. This chapter is segmented into three objectives based to the study.

The study found that major challenges facing the private transportation include shortage of Financial resources for transport infrastructure development and

maintenance; decline in the quality of offered transport services, inadequate road and railways networks and dysfunctional aerodromes at regional and district headquarters'.

The study found that wherever there is effectives of private logistics companies in transportation of goods the end results is customer satisfaction and increase and improve the business doing. As goods will be available on time consumed well and the industries can keep on producing as there will be a constant circulation of and flow of goods to the market and customer satisfaction will be enhanced.

Funds mobilization government should seek the support of the private sector and Local government authorities for financing construction of new infrastructural projects, rehabilitation and maintenance and Information technology has to become an essential part of the rapid and accurate transfer and processing of enormous volumes of data processed in international transport firms and port.

5.3 Conclusion

It is concluded that effectiveness of private logistic companies in transportation of products in Tanzania can be achieved through having competent drivers who are well trained in a recognized institution such as NIT who can obey rules and symbols which are used in the roads so as to avoid unnecessary accidents which may lead to cost the companies. The knowledge of ICT application can easly be used in transaction of documents, ICT application in transaction of documents and car tracking lead to effective private logistics companies in transportation of products at the company and

increases the number of customers, delivery time and having customer satisfaction. The competence of drivers of private logistics companies in transportation of products increases the number of customers, delivery time and having customer satisfaction.

Challenges that face private logistics companies in transportation of product that it is very difficult to isolate is the effects of congestion from other disturbances to companies‟ logistical schedules. Congestion-related delays were often amplified by booking-in systems. Vehicles arriving late at a Distribution Centre (DC) and missing their timetabled slots had often to queue until the next available slot. Several of the DCs are working at or near full capacity and there was little slack in their inbound schedules.

5.4 Recommendations

This research has managed to reveal the actual situations that exist and face logistics and transportation in Tanzania. Practical recommendations given by this study reflects the research questions and objectives of the study.

Funds mobilization government should seek the support of the private logistics companies and general private sector and Local government authorities for financing construction of new infrastructural projects, rehabilitation and maintenance. Use roman numbers to itemize.

(i) Information technology (IT) has to become an essential part of the rapid and accurate transfer and processing of enormous volumes of data processed in international transport firms and port organizations.

(ii) The SUMATRA and other road transport agency in the country should embark on regular education campaign to sensitise the road users on effective utilization of roads.

(iii) Tan road should construct additional bus stops and expand those with narrow lay-byes to prevent packing and stopping at unapproved places.

(iv) Tan road again should they should fix all dysfunctional road signals at various intersections and ensure regular maintenance to check effective traffic flows.

(v) Government and other policy makers of the road transport management should initiate the provision of well-equipped quick traffic response unit to deal with frequent vehicle breakdowns on the road.

(vi) Further studies into the mass transit system and how it can reduce traffic congestion is recommended.

5.5 Areas for Further Research

The researcher could not research satisfactorily on all areas of this topic and therefore recommends the following areas for future investigations. This study was on the effectiveness of private logistic companies in transportation of products in Tanzania other study could be on the importance of employee motivation in education delivery in Tanzania

5.6 Limitations of the Study

The nature of this study was the social science research, thus it is related to human behaviours, which is the part and parcel of the society. Mustapha (2010) list among the following as the limitations social science researchers are expecting to encounter: difficult in establishing the cause and effect relationship, problem of impartiality due

to the complexity of social data, inadequate information and difficultness of making probability.

This study expects to face the following to be the limitations:

The impartiality and adequate data and information, the study was administered to inquiries to different respondents, logistics and transportation aspects were considered thus the impartiality and adequate data and information are expected to be the limitations of the study.

Also logistic transportations matters always not transparent and was associated with company's life hence it is very difficult for the respondents from logistic companies such as HOTRIEF, AMI, and SAI and logistic officers of TBL and, TANROADS to respond directly hence difficult to expose accurate data and information. Also these private logistic companies' officers were so busy every day so is difficult to get enough time to interview them so as to get enough data and information for the study, hence time constraints in collecting data were the limiting factor of this study. The nature of the study also involved inquiring almost all logistics stake holders such as among them was not willing to answer the questionnaires and some need to pay them some of amount money or to buy anything in their shops, so in order to have sufficient collection of data it was needed sufficient finance, hence limiting the study.

Other respondent are reluctant to give genuine responses especially during interview and some of respondent lost the questionnaire and therefore reduced the number of the expected sample. To delaminate this, the researcher added more respondents to fill the gap as to have the same number of sample as estimated in sample size.

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APPENDICIES

Appendix I: Questionnaire

Dear respondent,

This is the questionnaire aim at collecting some information concerning the research titled: **Effectiveness of Private Logistic Companies in Transportation of Project Equipments In Tanzania: A Case of Private Logistic Companies Based in Ilala Municipality**

This questionnaire is administered by Mashauri Ramadhani a student at The Open University Of Tanzania(OUT), conducting a study on partial fulfillment of requirement of Masters degree in Project Management(MPM)

The information given to this questionnaire will be treated with highly confidential and used solely for research purposes and not otherwise. Please respond correctly to enable the researcher to attain the intended objective.

Circle or tick where is appropriate

SECTION ONE: PERSONAL PROFILE

A). what is your sex?

1. Female

2. Male

B). what is your age range?

1. Under 18

2. 18 – 35

3. 36- 55

4.55+

C). what is your level of education?

1. Primary level
2. Secondary level
3. College
4. Others (specify)……..

D). Years of operation in the private logistics and transportation business

i) 1-5

ii) 6-10

iii) 11-15

4. Above 15 (Specify)……..

E) Does Effectiveness of private logistics companies lead to the growth of Construction industrial sector in Tanzania?

i) Yes

ii) No

iii) Not aware.

F) Can Effectiveness of private logistics companies in transportation of project equipments in Tanzania can it be achieved through having competent drivers?

i) Yes

ii) No

iii) Not aware

G) Do Competence of drivers of private logistics companies in transportation of project equipments increases the number of customers, delivery time and having customer satisfaction

i) Yes

ii) NO

iii) Not aware

H) Does the ICT application in transaction of documents and car tracking lead to effective private legists companies in transportation of equipments at the company and increases the number of customers, delivery time and having customer satisfaction.

i) Yes

ii) No

iii) Not aware

I) Do ICT application in transaction of documents and car tracking lead to effective private legists companies

i) Yes

ii) No

iii) Not aware

J) Are there any challenges facing private logistic companies in transportation of project equipments in Tanzania.

i) Yes

ii) No

iii) Not aware

Appendix II: Interview guide for Logistics Company

SECTION ONE: PRSONAL PROFILE

1. What is the name of your company /institution?
2. How many years are you in this business?
3. Where is your business/company located?
4. What is the scale of operation? I.e. Small scale, Medium scale or large scale
5. Does Effectiveness of private logistics companies lead to the growth of construction industrial sector in Tanzania?
6. Can Effectiveness of private logistics companies in transportation of equipments in Tanzania can it be achieved through having competent drivers?
7. Do Competence of drivers of private logistics companies in transportation of equipments increases the number of customers, delivery time and having customer satisfaction?
8. Does the ICT application in transaction of documents and car tracking lead to effective private legists companies in transportation of project equipments at the company and increases the number of customers, delivery time and having customer satisfaction?
9. Do ICT application in transaction of documents and car tracking lead to effective private legists companies?
10. Are there any challenges facing private logistic companies in transportation of project equipments in Tanzania facing private logistic companies in transportation of products in Tanzania?

Appendix III: Time flame

Activity/month	JUNE		JULY.		AUGUST	
1. Research proposal preparation and approving.						
2. Reconnaissance						
3.Data collection						
4.Data analysis						
5.Report writing						
6.Research submission						

Source: Researcher (2019)

Appendix IV: Research Budgeting (In Tsh)

S/No.	ITEM	UNIT	UNITCOST (IN TSH)	TOTAL COST
1.	Software (ANTI-VIRUS and SPSS)	1	300,000.00	300,000.00
2.	Laptop (SONY)	1	900,000.00	900,000.00
3.	Printer (4in one) (Printing, photocopying, scanning and faxing)	1	470,000.00	470,000.00
4.	Rim papers	5	10,000.00	50,000.00
5.	Note books	5	1,200.00	6,000.00
6.	Flip charts	3	12,000.00	36,000.00
7.	Flat files	8	1,000.00	8,000.00
8.	Pens	1box	6,000.00	6,000.00
9.	Pencils	6sets	600.00	3,600.00
10.	Traveling cost		400,000.00	400,000.00
11.	Textbooks, magazines, journals and internet services.		1,000,000.00	1,000,000.00
12.	Meals and accommodation	30days	50,000.00	1,500,000.00
13.	Digital camera	1	300,000.00	300,000.00
14.	Flash 4GB	2	33,000.00	66,000.00
15.	Marker pens	1dozen	6,000.00	6,000.00
16.	Highlighters	1dozen	6,000.00	6,000.00
17.	Communication (airtime)		100,000.00	100,000.00
18.	Assistance Researchers	30days	20,000.00	600,000.00
19.	Training course on data analysis	5days	400,000.00	100,000.00
20	10% Contingency cost			614,360.00
	Grand total			6,757,960.00

The grand total is estimated to 4,505 U$ DOLLARS (At the current exchange rate)