

**LOGISTICS OUTSOURCING AND SERVICE DELIVERY IN SERVICE
FIRMS: A SURVEY OF TELECOMMUNICATIONS FIRMS IN
NAIROBI**

BY

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DECLARATION

I, the undersigned, declare that this is my original work and has not been presented to any institution or university other than the University of Nairobi for examination.

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This Research proposal has been submitted for examination with my approval as the University supervisor

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DEDICATION

I wish to devote this work to my lovely mother who has struggled bringing me up and the tremendous support she has shown to me all through the way. She has been my inspiration and cheerleader throughout the way. Special dedications also go to my uncle who has been very supportive throughout my academics journey, as well as being my father figure since I lost my dad thirteen years ago. I also devote to my grandmother for her sustenance and wise advises since I was a small boy. Without your support I wouldn't be here today.

Lastly, I wish to dedicate this to my late dad; you always insisted that Education is the only highway that could take me places and you always motivated me to work smart in class, I didn't let you down. I know you are somewhere watching over me and I know you are proud of me.

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Thank you so much.

ABSTRACT

The aim of this study was to establish the impact of Logistics outsourcing and service delivery in Telecommunications firms in Nairobi, and the need to gain insight into the key success factors to outsourcing. The study surveyed outsourcing practices employed by telecommunications firms by gathering primary data using questionnaires. In order to acquire such data, a study was carried out at various telecommunications firms in Nairobi. Data was collected by use of structured questionnaires. The data was analyzed by means of descriptive statistics and regression. Tables and charts were used to present the data. The study established that most of the outsourced services by Telecommunications forms in Nairobi are transportation management, inventory handling and control, warehousing management, and distribution management. These outsourced services in turn resulted in increased productivity, increased profitability, better efficiency in service delivery, customer satisfaction, as well as higher/ better cost efficiency. Therefore, outsourcing of such services was found out to be a major driver of a firm's competitive advantage as well as helping in streamlining its operations on a day to day basis. Outsourcing was also found out to be enhancing the reduction of a firm's operating costs, timely delivery to consumers, and reduction in lead time, as well as a rapid response to consumer demands in time. It was therefore notable that service delivery in a firm is largely influenced by the outsourcing practices adopted by the firm. The major limitation of this study was that it was solely based on telecommunication firms in Nairobi. Key words: logistics outsourcing, service delivery, telecommunication firms

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CHAPTER ONE: INTRODUCTION

1.1 Background of the study

The most important challenge to tackle during management of firms supply is determining the best logistic partner who can deliver goods and materials to customers using a shorter period of time. It is important when it comes to enhancing the firm's competitiveness as well as increasing the competitiveness of the firm. Selection of logistics service providers is a multi-criteria challenge that comprises both measurable and qualitative criteria (Guner, 2005).

Outsourcing is defined as an affiliation amongst a firm and a Logistic services providers (LSP), which offers tailored offerings as compared to basic logistics services, encompassed a wide range of service activities, with an orientation based on a long term, which makes it to be strategic in nature. Comprehensive attention in outsourcing of logistics tasks has been heightened as witnessed in recent times, which has led to outsourcing increasingly become a very important strategic function that significantly assists firms in leveraging core functions and resources to enable them achieve competitiveness. In addition, it is a rapidly growing aspect of the global economy (Quinn, 1994).

Outsourcing to 3rd party logistics providers (3PLs) is of recent seen as a source of of competitive edge in most firms. Firms cite more flexibility, efficiency in operations, improvement of customer service levels, as well as a focusing more on their core functions as part of the benefits of outsourcing. 3PL in service delivery firms started with firms outsourcing some or all of their distribution and transportation services/functions. Recently, 3rd party logistics providers have diversified from providing a sole function to a provision of more integrated logistics, providing multiple functions at the same time. Some of the logistical services provided by 3PL providers include inventory management, security, catering, procurement services, sales and marketing services, Information Technology services such, transportation and distribution services, financial services such as auditing etc (Basle Committee ,2005).

Outsourcing decisions are usually designed at the level of corporate management, usually contemplated as part of the long term strategic goals in the firm. A well designed outsourcing arrangement usually leads to an effective designation of tasks among the parties involved and also offers a wide range of benefits/satisfaction to the customer. The benefits of logistics

outsourcing include: high levels of efficiency, controlled costs, and increased accessibility by providing reach to world class capabilities, better investments, as well as an improved concentration on core business functions. Furthermore, outsourcing helps in making firms more flexible and agile, ready to face the shortcomings of running business in the increasing competitive and technological market, while offering reduction in costs and improved service delivery (Khan, 2008)

1.1.1 Logistics Outsourcing

McIvor (2005) defines Logistics outsourcing as correlation amongst a firm and 3PL service providers, which, in contrast to basic logistics functions, has a wide range of customized of services, which incorporates a wide sum of services offered, and is also categorized by a long-term orientation, which makes it strategic in nature. Service outsourcing is an approach that involves the delegation of operational functions as well as components in management, services or processes to a 3rd party service provider (Farell, 2010). It allows a company to focus on its main competencies for cost reduction, increased flexibility and management of an efficient growth in the firm. According to Stock & Lambert, 2009, the process of outsourcing needs to be properly managed and monitored if it's to achieve its desired objectives.

Globalization of businesses is argued to be the main outsourcing driver (Sheffi, 2000). Outsourcing scholars and practitioners recommend outsourcing of non-core business roles to 3rd party providers who have expertise, will free the business to focus on its strengths and future strategies, improve efficiency and customer service and gain competitive advantage in the market. With the verge of Supply chain management consolidation concept, logistics processes have achieved more focus, by being upgraded from being support functions to a central role in company's strategies. In addition, it is possible to point out that an increased customer demand related to the high level of outsourcing, which arises from the high level of information availability as well as making comparisons among competitors in the market (Figueiredo& Mora, 2009).

This is the main reason why many companies have opted to consider outsourcing from 3rd party logistics providers. The main reason is because management of such operations has been a challenge due to the wide scope of logistics functions, the challenge in handling large quantities of inventory/stock, as well as the huge capital investment needed for such activities (Bourlakis & Melewar, 2011). Hsiao, (2010) also argued that other reasons why firms

consider to outsource is due to their supply chain characteristics. Therefore, the complexity in logistics operations and demand uncertainty, the greater will be the requirement of seeking services from a 3rd party logistics service provider.

1.1.2 Service Delivery

Service refers to a type intangible economic activity, which is neither stored nor does not result in ownership. It includes exchange of information, asset of any type, knowledge, and entails the supplier relationships' development and management (Romano & Giannakins, 2000). It can be improved in any organization through the supply chain integration which leads to improved delivery of services and more productivity. Service delivery is a function of process of service quality and efficiency to customers. (Grönroos & Ojasalo, 2004).

Corbett (2004) argued that, as a management tool, outsourcing is used to move a firm against the vertically integrated traditional structure that is self-sufficient; which is not effective in current extremely competitive, and trade surroundings that are highly performance-driven. The key aim of the research was determine outsourcing/selection of 3rd party logistics providers' impacts in service delivery firms in Nairobi, and the urge to focus into the key success in selection of Logistics service providers. Effective service delivery assists employees in providing tailor-made services which meet specific business needs of a firm.

Young and Cohen 2006; argue that outsourcing does not relate to business and financial goals, however, it may have a huge effect on the competitiveness of a firm with time. Outsourcing firms require some conceptual tools in evaluating their outsourcing activities for them to be fully aware of the success factors that must be considered for their outsourcing opportunity.

The logistics service providers act as intermediaries in offering/providing these services by considering the customer's perspective of the supply chain network. The overall competitiveness of modern organizations is mainly determined by the design and implementation of service delivery processes. (Roth & Jackson, 2005), argue that process execution and capability are main performance drivers due to their effect on service delivery and customer satisfaction (Baily, 2005).

1.1.3 Telecommunications Firms in Nairobi

Telecommunications firms in Nairobi are the prominent self-determining data, voice and IP providers regionally. They provide a wide range of communication based services such as tele-communication service which comprise of mobile, fixed voice and short messaging service (SMS). The firms also provide broadband internet including data and internet. Evolution and substance of the strategies to undertake these responsibilities are based on the foundation of firms' vision. (Ryan, James E., and Thomas Saunders, 2004). Telecommunications firms in Nairobi face numerous challenges like rapid urban growth and development, political instability, inflation, limited financial capacity and infrastructure development that lag behind urban growth, flood management, rehabilitation of health centers, firefighting equipment's, road safety and environmental management, amongst others.

Telecommunications market has undergone considerable changes since the landing of four fiber optic international submarine cables in recent years. The dramatic increase in international bandwidth, but the 90% fall in the cost of broadband access ensured that services have been made affordable for large section of the population. Stakeholders also need to honor their obligations promptly, by ensuring proper management provided and embracing the principle of shared responsibility (Datta & Abhijit, 2006).

The firms also offer mobile phones, portable broadband modems, routers, tablets and notebooks. Their congregated commerce remedies include fixed voice services corporate and small and medium-sized enterprises firms, fixed data and mobile solutions for homes and businesses using fixed lease lines, and Internet solutions for hosted services and enterprises, such as cloud hosting, security services and domains. According to Awino (2011) telecommunications firms are significant segment making immense contributions country's commercial developments. They have capability to diversify the country's economy in a way or the other. This segment has been growing gradually both in areas of country's GDP and job creation.

According to the Communications Authority of Kenya, are 30 telecommunications firms in Nairobi which include The firm Limited, Airtel Kenya Limited, Jamii Telecommunications Limited, Telkom Kenya Limited, MTN Business Kenya, Zuku Limited, Kenya Data Networks, Access Group Kenya, Jambo Pay, Seacom Limited, Xtranet Telecommunication, Bandwidth & Cloud services Limited among others. Some of the services outsourced by

Telecommunications firms include transportation services, Inventory handling and control services, warehousing services, distribution management, among others.

1.2 Research Problem

In the 21st century, there is a noticeable paradigm shift in all sectors as organizations seek to transform their logistics capabilities and problem solving approaches. In this regard, there has been a huge change in logistics practices as organizations seek to establish, effective, efficient, as well as relevant product or service solutions for their customers (Berglund, van Laarhoven, Sharman, & Wandel, 1999). More than ever, organizations are delegating their less critical operations to 3PL service providers with the hope of achieving a competitive position in the notion that an organization can maximize its performance by maintaining lean operations (Baily, 2005). This suggests that, more than ever, there is a need to undertake a holistic analysis of outsourcing with an aim of grasping the role of the logistics outsourcing processes so that the sole function can be captured / outsourcing goal in a firm's strategy and competition.

Srbotic & Ruzzier (2012) examined the success factors in outsourcing and found out that the outsourcing methodology implementation is useful when it comes to successful outsourcing. Their central thesis was that the key factors leading to the success of outsourcing, once the 3rd party service provider has been selected, is the improvement of service delivery as well as commercial viability for parties, and objectives for partnerships, well defined roles, support from top management and commitment, communication and trust (Srbotic & Ruzzier, 2012).

Their analysis however glosses over the performance of outsourcing in as far as the outsourcing entity is concerned. In Uganda, a study re-examining the effects of outsourcing as a practice on service delivery found a positive effect between the practice of outsourcing and service delivery (Masaba& Pule, 2015). The shortcomings of this study however, are that, first; it primarily sought to analyze the outsourcing process, the contribution of outsourcing, and the challenges of outsourcing and largely ignored the effects of the same especially in regards to efficiency in service delivery and organizational performance. In Kenya, a study on outsourcing has been carried out by Karia examined the impact of outsourcing strategy on service delivery at Nairobi City County where it showed a weak positive correlation on efficiency and profitability as outsourcing had a limited effect on the ability of Nairobi City County to fulfill its customers demand (Karia, 2014). Even though the

study is novel in its analysis, it has not examined the impact of outsourcing in regards to service delivery and organizational performance as well as in a private sector setting.

The study therefore seeks to evaluate the influence of outsourcing of third party logistics services to the performance at telecommunications firms. More specifically, the study strives for answering three cardinal questions; first, what is the weight of outsourcing of third party logistic services on the profit maximization at the firms? Secondly, what is the impact of the outsourcing of third party logistics services on the efficiency of service provision at telecommunications firms? Thirdly, what is the impact of the outsourcing 3PL on the organizational growth at telecommunications firms?

1.3 Research objectives

This study seeks to find out effect of outsourcing of third party logistics on service delivery at service firms. The following are the specific objectives of the study are:

- i) To establish the extent to which outsourcing of third party logistics have been implemented at telecommunications firms.
- ii) To establish the relationship between outsourcing of third party logistics and the service delivery at telecommunications firms.

1.4 Value of the Study

In today's corporate world, logistics capabilities and problem solving approaches and especially in regard to an organizations ability to determine effective, efficient and relevant product and service delivery for customers has been a key determinant if an organization is to achieve the most sustainable competitive advantage.

Assumed this assumption of the ongoing evolution in the third party logistics outsourcing processes, it is imperative for researchers to continue to expand and progress to support practitioner and academic needs. At the practical level, there is a need for a holistic analysis of the third party logistics outsourcing processes especially on the party of service delivery institutions with a view to understanding the performance benefits accrued in the process more so in regard to profitability, organizational growth as well as efficiency and establish what needs to be done to enhance the fulfillment of the customer requirement or demand through third party logistics outsourcing processes.

Academically, there is a need to further enhance literature on third party logistics outsourcing processes with a view to not only critiquing existing literature but also enhance model building on third party logistics outsourcing processes as building blocks to concepts and theories informing third party logistics outsourcing.

CHAPTER TWO: LITERATURE REVIEW

2.1 Introduction

The section emphasizes on reviewing existing and relevant literature on logistics outsourcing services and their impacts on organizational performance of telecommunications firms in Nairobi. The accessible literature gives the basis of the research and consists of the broad outline of logistics outsourcing services, organizational performance and conceptual framework. The section also outlines the conceptual framework that shows the interrelationship between logistics outsourcing services and organizational performance (Mugenda & Mugenda, 1999)

2.2 Theoretical Literature Review

The theoretical framework refers to a structure of concepts that exists (tested) and is a ready-made map for a study. It consists of principles, theories, research findings and generalizations which are related to the study being investigated. This framework outlines how the current research problem evolved (Sarkis, 2011). This study theoretical framework is based on theory of competitive advantaged and resource based theories

2.2.1 Theory of Competitive Advantage

Competitiveness can be described in three altitudes: corporate, industry and national levels. Theory of national competition was introduced by Porter (1995) grounded on productivity as the capability to exploit economic production per unit of resources. He changed emphasis from national trade balance to factor endowments towards the macro and micro-economic factors distressing productivity as the main factor affecting long-term growth and competitiveness.

Firms develop commercial tactics to attain competitive advantage to beat its competitors (Porter, 1995). To achieve competitive advantage the firms should respond to the five forces which include; firm rivalry inside a business, risk posed by additional products and services, negotiating influence of buyers and suppliers and threat of new entrants in the market. According to porter (1995) a firm should evaluate the five factors in a given industry and target those points where the forces are weak. A business achieves competitive advantage when its activities in an industry yield economic worth and if limited competing businesses are engaging in related actions Porter (1995).When the right strategies are used it ensures

lasting profitability. This theory is helpful in this study since the conditions existing in the market dictate the specialization, design and the competence of the outsourced firm and as a result influencing the performance of the service delivery firms.

2.2.2 Resource Based Theory

This view asserts that firm sustained the improved performance and competitive advantage may be realized by exploiting rare, valuable, resources that are non-substitutable non imitable (Hart, 1995). Valuable resources allow a firm to harness opportunities as well as reducing threats posed in its environment. Rare resources are ones that aren't controlled by a considerable list of entities. Non-exchangeable resources are ones which corresponding resources can't simply be formed by contending organizations. Improperly imitable resources are ones that are hard to duplicate at a substantial cost (Hart, 1995). Daft (2001) lists these resources as the total number of assets, organizational processes, capabilities, information and knowledge and company attributes (Hart, 1995).

According to Helfat and Peteraf (2003), dynamic capabilities or resources can only increase the value of the company if they are employed sight that they consider the changing external environment of a business (Sirmon, Hitt& Ireland, 2007). Possessions are classified as intangible or tangible (Mentzer, Min & Bobbitt, 2004). Knowledge is mostly deliberated as an intangible input in organization theories (Mentzer et al., 2004). A lot of learning takes place between suppliers and buyers concerning matters such as timely delivery which take, however, such learning directly related to the service delivery of the supplier and cost reduction in supply chain relationships (Carter, 2005). The theory is essential for the research since it recognizes organizational processes, working relationships and knowledge sharing with logistics third parties as resources that enhance firm competitiveness in the market.

2.3 Logistics Outsourcing Services

In the recent past, many firms considered to outsource their logistics processes given the wide range of their logistics functions, the complexity inherent in handling huge quantities of inventory storing units or goods, the huge resources investments needed for these processes (Bourlakis & elewar, 2011). Hsiao, (2010) demonstrated that firms also go for this option considering the characteristics of their supply chains. Therefore, the larger the complexity of the logistics operations and demand uncertainty, the greater will be the need for a partnership with a Logistics Service Provider (LSP).

Globalization and the emergence of technological advancements have largely contributed to logistics service providers to become a main source of a firm's competitive advantage, especially for supply chain organizations (Asthana, 2013). Therefore, this impact together with the increasing need to serve customers efficiently and effectively and reduce the operation costs has prompted many firms to acquire the services of 3PL service providers (Skjoett, 2007). The steady increase in uptake of logistics outsourcing services is pegged on the realized benefits it could offer to improve organization and as well as supply chain performance (Rao & Young 2013)

By delegating their non-core activities to the logistics providers, firms can achieve competitive edge and maximize their profits by maintaining its lean operations. In this regard, third party logistics provider companies are attaining the popularity with pace and they have matured in to the professional businesses (Baily, 2005). Among services offered by 3PL's in the current market includes transportation management and packaging, order processing administration, stock management and consulting, warehousing management, consulting and consignment audit, tracing and cargo tracking, value added services as well as reverse logistics (Sowinski ,2005)

2.3.1 Transportation Management

Transportation management is one of the most crucial economic activity among the components of a firm's logistics systems. Majority of the company's logistics costs are spent on transportation (Carbone &Soifer, 2009). Transportation management allows goods and products to be moved from upstream to downstream level by providing efficacy both regionally and timely which enhance value addition under the least cost principle. In addition, virtuous transport systems in logistics activities provide more efficiency in logistics, cost reduction, and promoting service delivery which helps in improving transportation management. (Carbone & Soifer, 2009).

Transportation management activities enhance shipping and in turn, accomplish cost reduction deprived of affecting service delivery to consumers with a well-integrated logistics system increasing competitiveness in both the government and enterprises (Tseng, 2005). Transportation management plays an intermediary function among numerous stages that outcome the transformation of inputs into finished products for purposes of the customer. It includes coordination of the tasks and sub-activities into a structure of the movement of goods with the aim of cost reduction and service maximization to the customers the concept

of business logistics is constituted. Once a proper transportation management system is established, it should be effectively and efficiently managed (Fair, 2011).

2.3.2 Warehousing Management

A warehouse can be defined as a place in the distribution hub where there is storage of fresh materials, semi-finished products, or completed products during fluctuating phases of time' (Coyle, 2003). According to Lambert & Stock (2003), a warehouse has three basic functions which outsourced logistics firms strives to deliver to the outsourcing firm including movement of goods, storage and information transfer .A properly implemented warehousing system is developed to help in inventory procedures' specification, control and operation hence mainly focused on proper handling of materials and inventory safeguarding which is usually designed for side loading in less quantities (Ronald 2009).

Warehousing management stage a major part in SC and it mainly aims in the storage and control movement of materials within a warehouse as well as processing the associated transactions, which include distribution, unloading, storing and selection. The structures also optimize and authorize inventories to be stored based on instantaneous information regarding the bin utilization status. Warehousing management system usually ensures a smooth movement of goods along the warehouse. It is concerned with layout infrastructure of the warehouse, efficient communication between tracing systems and merchandise systems (Piasecki, 2005).

Firms that have the most effective warehouses have goods that are mostly ordered near to the shipping areas which usually minimize picking time. The firms usually gain their competitive edge by regularly revising their sales figures to guarantee goods are kept in proximity to the distribution area remain the frequently picked, (Simchi & Kaminsky, 2005).

2.3.3 Inventory Handling and Control

Stock management is mainly focused with storage, procurement and handling inventory usage with aim of ensuring inventories are always available when required, providing satisfactory endowment for eventualities, affecting economy maximization and wastage minimization (Mathur, 2010). The major purpose of an effective inventory control system is to strike a balance between large and small meaning, inventory is dependent upon the demand and supply chain delivery time with some firms following one stocking policy for all their items (Mukharji, 2011).

Vaidyanathan, (1998) pointed that cycle counting practice is technique of inventory accuracy audit where inventory is accounted for on a regular basis rather than once a year because large inventory quantity bears a financial risk and slight responds unfavorably on endurance of competitive dynamics and production. The effectiveness of stock management impacts on firm's agility because improper processes could end up to inventory imbalance leading to insufficient stock, overstocking, leading to excessive investment. The inefficiencies usually have negatively affect profits and investment levels required in inventory handling (Ackerman, 2000).

By outsourcing inventory management organization can improve on its organizational performance with Mulinge, (2014) depicting that there have been good inventory turns/proper space utilization, inventory accuracy in recording, good housekeeping practices and proper flow of inventory achieved to large extent. The main focus in the management of inventory handling is Inventory categorization; as well as to understand the types of inventory as well as their specific characteristics then establishing parameters of the stocking of inventory by considering the main characteristics of the particular inventory (Ozment & Sink, 2008). A logistics provider of this service should be able to segregate inventory on basis of whether it's obsolete hazardous or expired catalogue management; study inventory demand patterns, movement patterns and cycles in order to build sustainable inventory norms for different inventory categories. Furthermore, he or she should conduct quality checks before receiving commodities into inventory, employ machinery and portable electronic reader devices to boost productivity while reducing data entry error (Simchi & Kaminsky, 2005).

2.3.4 Distribution Management

Distribution management is the logistical activity in a supply chain that is involved in transferring of material and physical goods between the production point and consumption point, economic subject to another (Phelan, 2009).

A distribution management system is comprised of a procurement delivery systems and logistics, i.e. physical supply systems (Segetlija, Mesarić & Dujak, 2010). The system's main focus is to minimize space and time by storage and transportation, as well as shipment, processing of orders and supply logistics, i.e. materials movement. Ayers and Odegaard (2008) also argue that an effective Supply chain management requires an understanding of the needs of all customers and their segments as well as the correct channel to reach them. A logistics service provider partner with an efficient global network offers the possibility of

expanding distribution to a larger/wider market and also provides inbound services from manufacturing to consumption destinations globally. This provides a competitive advantage in comparison with competitors by offering readily available capabilities rather than creating one's network and capabilities from scratch (Boyso, 2009).

Firms come up with an effective distribution system which is always determined by the offer of the third party logistic service provider. In such scenarios, scheduling of all distribution routes to all the customers becomes the responsibility of the outsourcer. An efficient distribution strategy is also one that changes to meet the dynamic market needs. 3PLs play a critical part in increasing SC agility. Throughout years of servicing the high tech and retail industries, 3PL providers have mainly developed significant expertise in dealing with unpredictable demand levels. They provide both proven business processes and flexible resources (people, transportation assets and space,) required to deal much more efficiently with sudden demand spikes as well as label changes. The flexibility of logistics services provider's networks translates to improved service delivery during demand spikes, faster time-to-market and smoother product introductions (Patel & Aran 2005).

2.4 Service Delivery Measurement

In many organizations, service delivery is measured by first determining the lead time which is an important aspect of service delivery. Many factors contribute to lead time including procurement and delivery strategies, supplier location and transport choice (Beamon, 1999). Secondly, it can also be measured by using servqual method by considering elements such as flexibility, tangibles, assurance, tangibles and responsiveness with flexibility measuring organizations' ability to respond to different magnitude and time taken in delivering to customers' needs (Slack, 1999). Beamon, 1999 also pointed out that resource utilization can also be used because it indicates the level of efficiency in the supply chain and enables the organization to estimate accurately the funding requirements for outsourcing requirements.

Sink and Langley (1997) found out some of the trends in today was a shift by majority of companies to revise their priorities and put more focus on their main core competencies. It brought about a growing inclination by companies to outsource some functions including some logistics activities. Companies seeking servicing from a logistics service provider are more leverage on their capability to differentiate as well as gaining a competitive advantage in the dynamic market (Sink and Langley, 1997; Maltz, 1994).

Langley (1997) also researched on the usefulness of customized 3PL services, putting more effort on integration of a 3PL provider's human as well as financial resources to create a well-tailored service. This study established that third party service providers add major value by offering customized solutions to companies without internal logistics functions with the capability of providing competitive advantage in the market or differentiation. Therefore, the hypothesis regarding logistics outsourcing found out that there is a correlation between a company's logistics outsourcing and its service delivery.

2.5 Logistics Outsourcing and Service Delivery

Frazier & Prater, 2006 defined outsourcing as process involving shifting of old-fashioned corporate activities to external parties mainly focusing on gaining access to world class capabilities and increasing the service delivery quality and at the same time reducing their costs. Ozment & Sink, (2008) on their study to determine the influence of logistics subcontracting and capability on firm performance of e-commerce market environments, argued that advanced knowledge concerning a company's capability in logistics and logistics outsourcing led to better service delivery in e-commerce, thus all main effects were positive and significant.

Mulama, (2012) carried out research on logistics outsourcing and service performance of large manufacturing firms in Kenya, whereby he established that a wide range of advantages ensue to a company as a result of seeking services of a third party logistics service provider or part of its logistics services to a logistics service provider through cost reduction which enhances organizational as well as operational efficiency. Mulinge, 2014, in a study on logistics outsourcing and performance of commercial Banks in Kenya, found out that logistic outsourcing by commercial banks with respect to their performance is an imminent exercise, which is highly practices and endowed to these institutions. In lieu of the challenges which the banks face in their process of outsourcing logistic services, the study however concluded that these are practices that add value to the banks overall performance and competitive margins in the industry they operate in.

Wallenburg, & Knemeyer, (2010), in study of Logistics subcontracting performance and loyalty, the findings indicated out that service delivery is a very crucial booster that generates loyalty which is achieved through logistics outsourcing. They found out that outsourcing of a 3rd party service provider improved service delivery through meeting the needs, tastes and preferences of the customer which usually leads to improved loyalty. The connection

between outsourcing and service delivery is less developed empirically, Quinn, (1999) and Porter, (1997) in their normative literature argue that outsourcing is one of the main drivers of boosting a company's performance arguing that such a positive relationship due to the fact outsourcing makes a firm more nimble and allows it to be more focused on its core activities. It also increases the company's flexibility strategically in order to deal with fluctuations in technology or volume (Kotabe, 1998). On the relationship between outsourcing and operational service delivery, (Muriithi, 2014) results in showed that outsourcing does not significantly affect operational performance. Logistics outsourcing was able to explain a small percentage changes in the operational performance meaning that customer support outsourcing practices, new product outsourcing practices, information technology outsourcing practices did not significantly affect operation performance.

2.6. Empirical Studies

More than ever, organizations are delegating their non-critical activities to 3PLs providers with the hope of achieving a competitive position in the notion that an organization can maximize its performance by maintaining lean operations (Baily, 2005). This suggests that, more than ever, there is a need to undertake a holistic analysis of outsourcing with a view to understand the process logistics outsourcing in order to completely address the task and worth of logistics in corporate policies and rivalry.

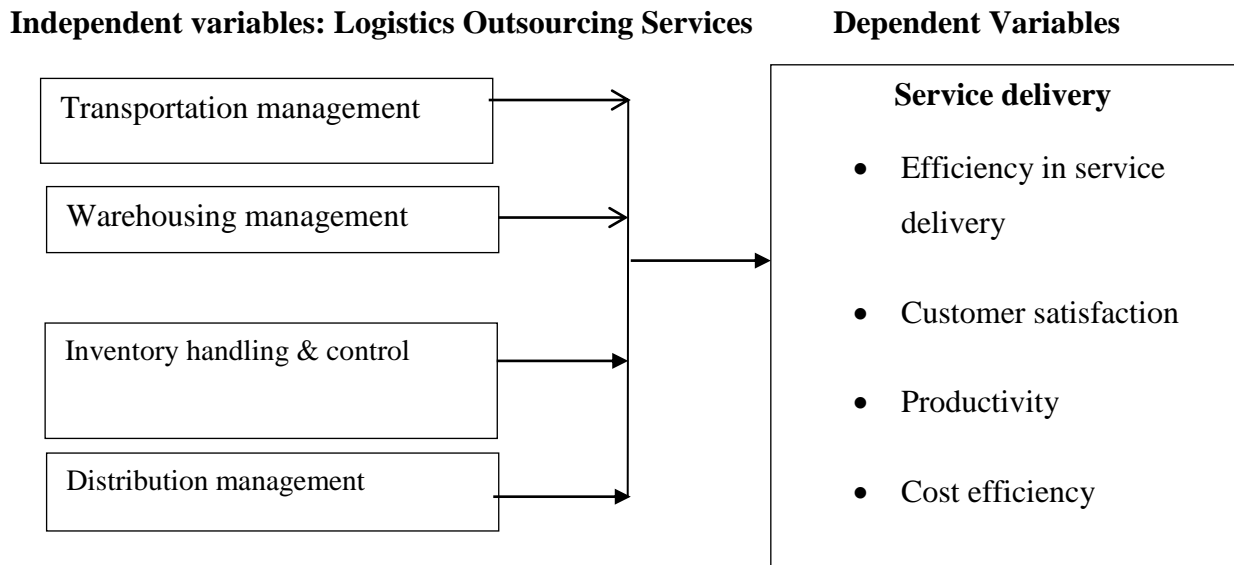
Gulamhusein (2011) conducted research on strategic process outsourcing practices in the mobile phone service providers in Kenya and more so in business process outsourcing. Maghanga (2011) also carried out a case study on logistics outsourcing practices on tea production firms in Kericho County in Kenya and apparently in both cases they did not address the issue of logistics outsourcing and the performance of the supply chain. There were no performance indicators. In any outsourcing activity or process, one should be able to assess the performance of the third party logistics suppliers. Kariko (2012) examined logistics outsourcing and supply chain performance of campuses in Nairobi County, but in his study, he did not examine the elements of logistics outsourcing i.e. third party or fourth party logistics provision in relation to supply chain performance, but challenges faced in the implementation of logistics outsourcing were similar in the above mentioned studies. Peterson (1995) did a study on contract services for higher education in the USA and revealed that more than 40% of logistics functions and more than 60% of catering 7 facilities are operated by outsourced firms. Further more than half of the colleges and universities

surveyed, outsourced at least five services. The study further revealed that the most commonly outsourced services were catering, transport, laundry, logistics and customer care

2.7 Conceptual Framework

The conceptual framework outlined below shows the influence of third party logistics services on service delivery at telecommunications firms in Nairobi.

Figure 2.1: Conceptual Model



Source: Researcher (2017)

CHAPTER THREE: RESEARCH METHODOLOGY

3.1 Introduction

The section is concerned with data collection and analysis for examining effect of the outsourcing of third party logistics services on the service delivery at telecommunications firms Nairobi. Both primary and secondary data will be collected to make sure that all relevant materials on data required for the study will be acquired and utilized. The section thus seeks to outline a roadmap to the research project's data collection methodology.

3.2 Research Design

The study employed causal design for examining influence of outsourcing of third party logistics services on service delivery at telecommunications firms. The inclusive criterion in this study will be the Nairobi County. The choice of Nairobi County is influenced by the fact that it is the area which most attracts foreign direct investment. In addition, Nairobi County is the commercial and political headquarter of Kenya and hence a microcosm of the country.

It outlined the research paradigm applied, the research design, the data collection techniques, address the issue of reliability and validity of the data, examined the data analysis strategy as well as the research ethics. According to Mugenda & Mugenda (2003), at least 10% of the target population was suitable for the study. This research work is both quantitative and qualitative based on statistics, views, perceptions and opinions of respondents on what they perceived about the impact of the outsourcing of third party logistics services on the service delivery of telecommunications firms in Nairobi. The survey method was the most appropriate in such a study according to some researchers (Gay, 2010).

3.3 Population

The population of the study consisted of all 30 telecommunications firms based in Nairobi. They were mainly drawn from the operations and logistics department as well as departmental heads in other departments. A census was most suitable for the study since the population was relatively small.

3.4 Data Collection

The study used primary and quantitative techniques hence questionnaires were administered in data collection because it facilitated collection of data from a large sample, and at the same

time upholds confidentiality and saves time. The respondents were mainly staff at Logistics/supply chain departments at the firms since they had the relevant knowledge based on the study. The questionnaires comprised of two sections where the first section enquired respondents` background information while the second section entailed the firms` commitment to logistics outsourcing services.

3.5 Data Analysis

The study findings were analyzed using descriptive statistics. Analysis methods such as variables frequency and percentages were obtained using Statistical Packages for Social Sciences (SPSS). Once data was collected, it was classified, tabulated, and summarized through use of descriptive measures and the finding from the study presented using tables

Descriptive statistics establish the features of an array of data and enables the researcher to use few statistics to meaningfully describe the phenomena under investigation (Cooper and Schindler, 2001)

CHAPTER FOUR: DATA ANALYSIS, FINDINGS AND DISCUSSION

4.1 Introduction

This section contains various results from the study with respect to study objectives. This section presented findings on logistics outsourcing and service delivery and its impact on service delivery at Telecommunication firms in Nairobi. The study's purpose was to find out the degree to which outsourcing of 3PLs have been implemented at telecommunications firms and to establish the relationship between outsourcing of third party logistics and service delivery at telecommunications firms in Nairobi. The study target population was the staff in the operations and logistics department. The questionnaires were self-administered by the researcher and follow-ups through phone calls done. The various respondents were explained to what the high importance of the study information obtained and its importance to the researcher. By so doing, it ensured a 100% response rate. A response rate of 50% is considered adequate, 60% good and above 70% rated very well (Mugenda & Mugenda, 2003). The response rate for this study was 92% was considered very well and hence the researcher proceeded for data analysis.

4.2 Biographic Information

The study intended to have a grasp of the basic background information of the respondents working at the various telecommunication firms in Nairobi. The study gathered data on various aspects of respondents at various telecommunication firms in Nairobi in order to evaluate how the relationship between outsourcing of third party logistics and the service delivery at telecommunications firms in Nairobi affects service delivery. It was done to ascertain the connection amongst information gathered on their experience, education level. This was to facilitate knowledge on the correlation to the data sought on the correlation between outsourcing of third party logistics and the service delivery at telecommunications firms in Nairobi. Under the background information the information sought was on the experience in terms of years the respondents have been working at the various telecommunication firms in Nairobi, their age, and gender and education level. The findings of the study are as discussed below:

Table 4.1 Gender

	Frequency	Valid Percent
male	16	53.3
female	14	46.7
Total	30	100.0

From the findings as indicated above 53.3% of the respondents were male and 46.7% of the respondents were female .This is an indication that various staff in the various telecommunication firms in Nairobi are well distributed and the difference between the two is minimal hence an indication of equal distribution of staff in the firms and the specific departments that the research was based

Table 4.2 Age

	Frequency	Percent
Less than 30	4	13.3
31-35	9	30.0
36-40	7	23.3
41-45	3	10.0
46-50	4	13.3
more than 51	3	10.0
Total	30	100.0

The respondents were asked on their age, from the findings the results indicated that 13% of the respondents were aged below 30 years, 30% of the respondents were aged between 31-35 years, 23.3% were aged 36-40 years, 10% were aged between 41-45 years 13% were aged between 45-50 years and finally 10% were aged over 51%.From this findings it was an

indication that various telecommunication firms in Nairobi had staff of a wide range of age brackets.

Table 4.3 Education

	Frequency	Percent
Degree	21	70.0
masters	9	30.0
Total	30	100.0

The respondents were asked to indicate their education level .From the findings the results indicated that 70% of the respondents in the telecommunication firms in Nairobi had degree level in terms of education and 30% of the respondents had a master’s degree .No respondent had college or secondary level education an indication that the respondents had adverse knowledge on the data sought on logistics outsourcing based on their education levels.

Table 4.4 Department

	Frequency	Percent
operations	4	13.3
logistics	26	86.7
Total	30	100.0

The respondents were asked to indicate the department in which they were based in their firms. From the findings, 13.3% of the respondents were from the operations department and 86.3% of the respondents were based in the logistics department. These findings were a good indication that the respondents had adequate knowledge on the data sought since they worked in the logistics department and the study was on outsourcing third party logistics and its impact on service delivery.

Table 4.5 Experience

	Frequency	Percent
below 5 years	3	10.0
5 to 10 years	14	46.7
above 10 years	11	36.7
4.00	1	3.3
5.00	1	3.3
Total	30	100.0

Source: Research data

The respondents were asked to indicate their working experience in the firms. From the findings the researcher ascertained that 46.3% of the respondents had 5 to 10 years, 10% of the respondents had below 5 years' experience and 36.7% of the respondents had over 10 years' experience. From these results it was a good indication for the study to be articulated since more than fifty percent of the respondents had adverse experience in the field and had adequate knowledge on the data sought on logistics outsourcing and service delivery in telecommunication firms in Nairobi

4.2 Implementation of Third Party Logistics

The study's first objective was to establish the extent to which outsourcing of third party logistics have been implemented at telecommunications firms in Nairobi. To ascertain this descriptive statistics was carried out on the data collected on the various third party outsourcing services in Telecommunication firms in Nairobi.

Table 4.6 Descriptive Statistics

	Mean	Std. Deviation	Variance
Distribution management	4.2667	.78492	.616
Warehouse management	4.2333	.85836	.737
Packaging	4.3667	.71840	.516
Transportation management	4.4000	.72397	.524
Inventory handling and management	4.4667	.57135	.326
Order processing and management	4.4333	.72793	.530
System management and improvement	4.3333	.66089	.437
Information management	4.3000	.79438	.631
Material handling management	4.3000	.74971	.562
Standardization of procedures	4.4667	.68145	.464
Valid N (list wise)			

Source: Research data

The respondents were asked to indicate the level to which the various third party logistics services had been implemented in telecommunication firms. The specific logistics services are as indicated in the table above. From the respondents the results indicated a mean of 4.26 for distribution management, 4.23 for warehouse management, 4.36 for packaging, 4.4 for transportation management, 4.46 for inventory handling, 4.43 for order processing, 4.33 for system management and improvement, 4.30 for information management, 4.30 for material handling management, 4.46 for standardization of procedures. From this results it is an indication that all the logistics outsourcing services had been implemented in the various

telecommunication firms as indicated by a positive mean values .Besides the results of the study also indicated positive values of the standard deviations .

From these findings it was concluded that the various third party logistics outsourcing services had been adopted in the telecommunication firms in Nairobi. This is as indicated by the positive mean values greater than three. This study is in line with a study carried out by Kariko (2012) where he examined logistics outsourcing and supply chain performance of campuses in Nairobi County, where he examined the elements of logistics outsourcing i.e. third party or fourth party logistics provision in relation to supply chain performance. The findings of the study indicated that to a great extent, all the third party logistics services had been adopted in Nairobi County.

Table 4.7 Distribution management

	Frequency	Percent
moderate extent	6	20.0
Great extent	10	33.3
very great extent	14	46.7
Total	30	100.0

Source: Research data

From the findings it is evident that 20% of the respondents agreed to the fact that distribution management as a logistics outsourcing service had been implemented to a moderate extent by the various telecommunication firms in Nairobi.33.3 % of the respondents ascertained that distribution management had been implemented to great extent in the various telecommunication firms in Nairobi.46. % of the respondents indicated that it had been implemented in their firms to a very great extent

Table 4.8 Warehouse management

	Frequency	Percent
moderate extent	8	26.7

Great extent	7	23.3
very great extent	15	50.0
Total	30	100.0

Source: Research data

From the results of the study indicated above, the findings ascertained that 26.7% of the respondents indicated that warehouse management as a logistics outsourced service had been , implemented in the telecommunication firms in Kenya to moderate extent, 23.3% to great extent, and 50% indicated that it had been implemented to a very great extent. From these findings it was indicated that warehouse management had been implemented to a great extent in the Telecommunication firms.

Table 4.9 Packaging

	Frequency	Valid Percent
moderate extent	4	13.3
Great extent	11	36.7
very great extent	15	50.0
Total	30	100.0

Source: Research data

The findings of the study on levels of implementation of logistics outsourced services, the results indicate that 13.3% of the respondents indicated that Packaging outsourcing as a logistics service had been implemented in the telecommunication firms had been implemented to a moderate extent, 36.7% of the respondents agreed that it had been implemented to a great extent and 50% of the respondents agreed that it had been implemented to very great extent. The over 50% of the respondents from all the firma indicated that packaging as a logistics service had been implemented in the various telecommunication firms.

Table 4.10 Transportation management

	Frequency	Percent
moderate extent	4	13.3
Great extent	10	33.3
very great extent	16	53.3
Total	30	100.0

Source: Research data

From the findings of the study on extent to which transportation management as logistics management outsourced activity is implemented in various telecommunication firms in Nairobi. The results indicated that 13.3% of the respondents agreed that it had been implemented to moderate extent, 33.3% to great extent and 53.3% indicated that it had been implemented to a very great extent. From this it was ascertained that transportation management had been highly implemented in the telecommunication firms.

Table 4.12 Inventory handling management

	Frequency	Percent
moderate extent	1	3.3
Great extent	14	46.7
very great extent	15	50.0
Total	30	100.0

Source: Research data

From the results it is established that 3.3 of the respondents indicated that inventory management had been implemented to a moderate extent, 46.7% to great extent and 50% to a very great extent. From these results it was ascertained that inventory handling management as logistics service had been implemented by most of the telecommunication firms indicated

by more than 50% of the respondents agreeing to the fact that it is implemented to a great extent.

	Frequency	Percent
moderate extent	4	13.3
Great extent	9	30.0
very great extent	17	56.7
Total	30	100.0

Source: Research data

From the results it was ascertained that 13.3% of the respondents indicated order processing as a logistics service had been implemented in the firms, 30% indicated that it had been implemented to a great extent and 56.7% indicated that it had been implemented to a very great extent .It was concluded that order processing as a logistics service had been implemented in the telecommunication firms in Nairobi.

	Frequency	Percent
moderate extent	3	10.0
Great extent	14	46.7
very great extent	13	43.3
Total	30	100.0

From the findings on the first objective of implementation of the various outsourced logistics services in Telecommunication firms in Nairobi indicated that 10% of the respondents agreed to the fact that system management had been implemented to moderate extent in the telecommunication firms in Nairobi. Besides 46% indicated that it had been implemented to a great extent while 433% had been implemented to a very great extent. It was concluded that system management had been implemented in the firms to a great extent.

	Frequency	Percent
moderate extent	6	20.0
Great extent	9	30.0
very great extent	15	50.0
Total	30	100.0

The results indicated that 50% of the respondents indicated that information management had been adopted by the telecommunication firms to a very great extent, 30% to great extent and 20% indicated that it had been implemented to a moderate extent. An indication that information management as an outsourced logistics service had been outsourced by most telecommunication firms in Nairobi.

	Frequency	percentage
moderate extent	5	16.7
Great extent	11	36.7
very great extent	14	46.7
Total	30	100.0

The results indicated that 16.7% of the respondents ascertained that material handling as an outsourced logistics service is implemented in the telecommunication firms to a moderate extent, 36.7% of the respondents indicated that material handling had been outsourced by the firms to great extent and 46.7% to a very great extent. This is an indication that it had been implemented in all the telecommunication firms.

	Frequency	Percent
moderate extent	3	10.0
Great extent	10	33.3
very great extent	17	56.7
Total	30	100.0

The results showed that 10% of the respondents indicated that standardization of procedures had been implemented to the telecommunication firms to moderate extent, 33.3% to a great extent and 56.7% agreed to the fact that standardization of procedures had been implemented in the firms to a very great extent.

4.3 Outsourcing of Third Party Logistics and service delivery

The second objective of the study was to ascertain the relationship between outsourcing of third party logistics and the service delivery at telecommunications firms. To accomplish this, multiple regression analysis was used where service delivery was regressed against logistics outsourcing services implemented in telecommunication firms in Nairobi. Service delivery was measured by use of activities like distribution management services, transportation management services, warehousing management services and information sharing management services .Besides correlation was carried out to indicate the impact of the various outsourcing logistics services and service delivery. To ascertain this relationship, regression analysis and correlation analysis was carried out. The findings are as indicated below:

Table 4.14 Correlations

		service levels	Warehouse management	packaging	Transportation management	Inventory handling and management	order processing and management	System management and improvement
service levels	Pearson Correlation	1	.365*	.493**	.595**	.482**	.032	.421*
	Sig. (2-tailed)		.047	.006	.001	.007	.866	.021
Warehouse management	Pearson Correlation	.365*	1	.583**	.566**	.333	.605**	.344
	Sig. (2-tailed)	.047		.001	.001	.072	.000	.062
Packaging	Pearson Correlation	.493**	.583**	1	.438*	.409*	.543**	.605**
	Sig. (2-tailed)	.005	.001		.016	.025	.002	.000
Transportation management	Pearson Correlation	.595**	.566**	.438*	1	.367*	.380*	.288
	Sig. (2-tailed)	.001	.001	.016		.046	.039	.122
Inventory handling and management	Pearson Correlation	.482**	.333	.409*	.367*	1	.326	.396*
	Sig. (2-tailed)	.007	.072	.025	.046		.079	.030
order processing and management	Pearson Correlation	.032	.605**	.543**	.380*	.326	1	.334
	Sig. (2-tailed)	.002	.000	.002	.039	.079		.071
	N	30	30	30	30	30	30	30
System management and improvement	Pearson Correlation	.421*	.344	.605**	.288	.396*	.334	1
	Sig. (2-tailed)	.021	.062	.000	.122	.030	.071	

ment	tailed)							
Information management	Pearson Correlation	.144	.450*	.465**	.384*	.365*	.423*	.460*
ent	Sig. (2-tailed)	.448	.013	.010	.036	.048	.020	.011
Material handling management	Pearson Correlation	.152	.155	.365*	.025	.386*	.385*	.557**
ent	Sig. (2-tailed)	.422	.412	.047	.894	.035	.035	.001
Standardization of procedures	Pearson Correlation	.017	.397*	.484**	.377*	.218	.621**	.485**
es	Sig. (2-tailed)	.030	.086	.007	.040	.246	.000	.007
Distribution management	Pearson Correlation	.384*	.316	.294	.250	.633**	.124	.273
ent	Sig. (2-tailed)	.003	.089	.115	.183	.000	.513	.144

Source research data: 2017

From the results of the correlation between the various outsourced third party logistics activities and service levels, the results indicated, a positive correlation between the various outsourced logistics services implemented in Telecommunication firms in Nairobi and service levels delivery. The findings indicated: Warehousing management had a correlation of .365 to service delivery .This implied that outsourcing of warehouse Management as a logistics service results to an increase in the service delivery levels. Besides the significant level was at 0.47 an indication that warehouse management is not statically significant to service delivery since the significant levels were beyond 0.005 which is the significant level of the 2-tailed correlation. This was due to the fact that warehouse management has no strong impact to service delivery and other factors have a greater effect to service delivery.

Packaging as per the results indicated a 0.493 as the correlation value with service delivery and a p-value of 0.005. From these we can ascertain that packaging is statistically significant at 0.005 since it is equal to the set significant level of 0.005 and hence it affects service level at 95% confidence level. Besides adoption of packaging outsourcing as a logistics service results to an increase in the service delivery levels. From the findings transportation had a correlation value of 0.595, an indication that there exists a strong positive relationship between transportation outsourcing as a logistics service and service delivery at the various telecommunication firms in Nairobi. Besides the results indicated a p-value of 0.001 an indication that transportation has strong positive impact on service delivery since the 0.001 p-value is less than 0.005 hence transportation is statically significant at 95% confidence level.

Inventory handling management indicated a correlation value of .482, an indication that it has a positive effect on service delivery. Besides it had a p-value of 0.007 an indication that inventory handling management is not statically significant since the 0.007 p-value is greater than 0.005 at 95% confidence levels. Order processing as an outsourcing logistics service from the findings indicated a correlation value of 0.32 an Indication that there exists a weak positive relationship between order processing and service delivery at telecommunication firms in Nairobi. Besides the p-value was 0.002 and indication that order processing is statistically significant at 955 confidence level since 0.002 is lower than 0.005.

System management from the findings had a correlation value of 0.421, an indication that it had a positive correlation with service delivery and its implementation results to an increase in the service delivery in the various telecommunication firms in Nairobi. The significant level was at 0.021 which is above 0.005 hence, system management is not statically significant at 95% confidence levels. From the results, information management indicated a correlation value of 0.144 which indicated that it has a positive relationship to service delivery and implementation of information management as an outsourcing service leads to increased levels of service delivery in the telecommunication firms in Nairobi. In addition to that the results indicated a p-value of 0.4489 an indication that information management is not statically significant at 95% confidence level given by the fact that it is above 0.005 significance level.

Material handling from the findings above, indicated a p-value of 0.422 and a correlation value of 0.152 which was an indication that standardization of procedures as a logistics outsourcing service is positively correlated to service delivery in telecommunication firms in

Nairobi. Besides, a p-value of 0.152 indicates that it is not statistically significant at 95% confidence level since it is way above 0.005. This means that the outsourcing of material handling as a logistics service implemented in telecommunication firms in Nairobi was a representative of the total population and hence the results from the study could be generalized.

Standardization of procedures indicated a correlation value of 0.17 and 0.03. This indicates that standardization of procedures has a positive impact on service levels delivery. Besides, a p-value of 0.03 indicates that it is not statistically significant at 95% confidence level since it is way above 0.005. This means that the outsourcing of standardization of procedures as a logistics service implemented in telecommunication firms in Nairobi was a representative of the total population and hence the results from the study could be generalized. Distribution management indicated a correlation value of 0.384 and p-value of 0.003. From these findings we can ascertain that distribution management is statistically significant at 95% confidence level given that it is below 0.005 significant level. Besides the p-value of 0.003 indicates that distribution management is statistically significant since the 0.003 value is less than 0.005.

Table 4.15 model summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.844 ^a	0.712	0.442	0.4274	0.712	2.643	14	15	0.000

predictors: (Constant), distribution management, Standardization of procedures, Distribution management, Material handling management, information sharing management, Inventory handling and management, Warehouse management, material handling services, System management and improvement, Transportation management, packaging, warehouse management services, order processing and management, Information management

From the findings, distribution management, Standardization of procedures, Distribution management, Material handling management, information sharing management, Inventory handling and management, Warehouse management, material handling services, System

management and improvement, Transportation management, packaging, warehouse management services, order processing and management, Information management were found to affect service delivery .This was indicated by the values of R square which is coefficient of 0.844.

Besides the values of coefficient of determination of 0.712 have an indication that the various outsourced logistics services have a positive impact on a substantial 71.2% of service delivery of telecommunication firms .From this it was ascertained that 71.2% of the service delivery at telecommunication firms in Nairobi was highly affected by the various third party logistics outsourced .Besides only 28.8% of the respondents is not predetermined by the various third party logistics outsourced. From these results it could be concluded that to a very great extent, various third party logistics services outsourced in Telecommunication firms in Nairobi.

Table 4.16 ANOVAa

Model		Sum of Squares	df	Mean Square	F	Sig.
	Regression	6.759	14	.483	2.643	.000 ^a
1	Residual	2.741	15	.183		
	Total	9.500	29			

a. Dependent Variable: service levels

b. Predictors: (Constant), distribution management, Standardization of procedures, Distribution management, Material handling management, information sharing management, Inventory handling and management, Warehouse management, material handling services, System management and improvement, Transportation management, packaging, warehouse management services, order processing and management, Information management

From the findings on the analysis of variance, a p-value of 0.000 was attained which was an indication that the outsourcing third party logistics services had been implemented by various telecommunication firms in Nairobi. A 0.000 p-value is an indication that outsourcing third party logistics services implemented by telecommunication firms in Nairobi were statically significant since it is a value less than 0.005. Therefore, at a confidence of 95%, outsourcing third party logistics services affect service delivery in telecommunication firms in Nairobi.

Besides at significance level of 0,000, this is an indication that outsourcing third party logistics services had a strong statistically significance on service delivery in telecommunication firms in Nairobi.

Table 4.16 coefficients

Model	Unstandardized		Standardized	T	Sig.
	Coefficients		Coefficients		
	B	Std. Error	Beta		
(service delivery)	7.055	.714		9.882	.000
material handling	.104	.049	.148	1.653	.081
distribution	.341	.058	.515	5.554	.000
management					
inventory	.150	.073	.254	2.053	.049
management					
Standardizations	.291	.060	.326	3.661	.001
procedures					
information	.331	.060	.527	5.554	.000
management,					
Packaging	.145	.077	.081	2.673	.036
management					
Transport	.100	.187	.166	1.097	.041
management					
Inventory	.394	.151	.772	5.266	.000
management					
Order processing	.343	.121	.128	.863	.061
management					
Systems management	.265	.158	.041	.258	.003

Supplier information technology	.771	.217	.048	-.296	.004
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a. Dependent Variable: service levels

b. Predictors: (Constant), material handling, distribution management ,inventory management, standardization procedures ,information management, packaging management, transport management, inventory management, order processing management and systems management.

The findings of the regression analysis indicated that a unit increase in the material handling results in increase in the service delivery by 0.104, and it is not statistically significant since the p-value =of 0.081is more than 0.05.A unit increase in distribution management results in an increase in the levels of service delivery by 0.341.Distribution management had a p-value of 0.000 which indicates that it is statistically significant since the p-value is less than 0.05 at 95% confidence level. Inventory management results in an increase in the levels of service delivery by 0.150 holding other factors constant. It indicated a p-value of 0.49 which shows it is statistically significant since the p-value is less than 0.05.A unit increase in standardization procedures results in an increase in the levels of service levels by 0.291.It indicated a p-value of 0.001 which shows it is statistically significant at 95% confidence level because it is less than 0.05.Packaging management increase by one unit causes an increase in the service delivery levels by 0.145.It indicated a p-value of 0.000 which shows that it is statistically significant since it is below 0.005. A unit increase in Transport management results in an increase in the levels of service delivery by 0.100.Transportation management is statistically significant since its p-value of 0.041 which isles than 0.05.A unit increase in inventory management results in an increase in the service levels by 0.394.A p-value of 0.000 for inventory management indicated that it is statistically significant at since it is

less than 0.05. A unit increase in order processing results in an increase in the service delivery by 0.343. It had a p-value of 0.061 an indication that it is not statistically significant at 95% confidence level.

4.4 Discussion

The first objective of the study was to establish the extent to which outsourcing of third party logistics have been implemented at telecommunications firms in Nairobi. From the results it was ascertained that outsourcing of third party logistics had been implemented to a large extent by the various telecommunication firms in Nairobi. From the findings, distribution management had a mean value of 4.2667, warehouse management had a mean of 4.2333, packaging had a mean of 4.3667, transportation management had a mean of 4.4, inventory handling management had a mean of 4.4667, order processing had a mean of 4.4333, system management had a mean of 4.3, information management had a mean of 4.3333, material handling management had a mean of 4.3, standardization of procedures indicated a mean of 4.3 and distribution management indicated a mean of 4.4667. From these findings it was an indication that the various outsourced logistics services had been implemented in the telecommunication firms due to the positive values of the mean results that was attained from the descriptive statistics. To ascertain the extent to which the various extent to which outsourcing of third party logistics have been implemented at telecommunications firms in Nairobi, a further test using descriptive statistics was carried out using frequencies where the results were evaluated.

The study used a likert scale of 1 to 5 where 1 indicated that implementation was done to a small extent while 5 indicated that it had been implemented to a great extent. From the results it was indicated that most of the respondents indicated that all the tested logistics services had been implemented to a moderate to a great extent i.e. distribution management indicated a 46.7% of the respondents agreed that it had been implemented to a great extent, warehouse management had been implemented to a very great extent indicated by 50% of the respondents, 53.3% of the respondents agreed to the fact that packaging had been implemented to a very great extent, 50% indicated that transportation had been implemented to a great extent and none indicated that it had been implemented to a small extent.

Order processing indicated that it had been implemented by a 56.7 of the respondents had agreed that it had been implemented to a very great extent. System management, according to the respondents, indicated by a 46.7% of the respondents ascertaining to the fact that it had been implemented to a very great extent. Information management had been implemented in the telecommunication firms as indicated by 50% response rates. Material handling was implemented to a great extent indicated by a response rate of 46.75 and standardization of procedures was implemented to very great extent indicated by a response rate of 56.7% .From these results, it was proved that outsourcing of third party logistics have been implemented at telecommunications firms in Nairobi to a very great extent.

The second objective was to ascertain the impact of outsourcing of third party logistics on service delivery of telecommunication firms in Nairobi. From the results of correlation analysis carried out on the services against service delivery, the results indicated a positive relationship between the outsourced services and service delivery. Service delivery was indicated by efficiency in service delivery, customer satisfaction, cost reduction and productivity .From the findings it was ascertained that outsourcing of third party logistics had positive impact on service delivery indicated by positive correlation values from the correlation values found an indication that outsourced logistics services have a positive impact on performance. Besides the regression analysis was carried out where the various outsourced logistics activities were regressed against service delivery indicators. From the findings it was ascertained that the various independent variables were able to explain the dependent variable which was service delivery by 71.2% .This indicated that the outsourced logistics services had great impact on the service delivery. The anova analysis indicated a 0.000 value as the significance level an indication that the model used was significant since the value is less than 0.005.

This study is in line with a study carried out by Githinji (2012) whereby he ascertained that implementation of outsourcing third party logistics has positive impact on performance.

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

Summary of the study, conclusions established from the study, recommendations are what made up this chapter. This chapter goes further to discuss the various limitations of the study.

5.2 Summary

The main purpose of this study was to establish the extent to which outsourcing of third party logistics have been implemented at telecommunications firms in Nairobi .Besides the other objective was to ascertain the impact of outsourcing of third party logistics on service delivery of telecommunication firms in Nairobi. The findings of the study found out that telecommunication firms in Nairobi had adopted outsourcing of third party logistics to a great extent which were distribution management, transportation management, and information management among others. This was indicated by a positive mean value for all the outsourced third party logistics services. Besides, the results of descriptive results indicated that more than 50% of the respondents agreed to the fact that outsourcing third party logistics services had been implemented to a very great extent in all the telecommunication firms in Nairobi.

The second objective was to establish the impact of outsourced third party logistics on service delivery in telecommunication firms in Nairobi. The results ascertained that outsourced third party logistics had [positive impact on performance. This was indicated by a positive correlation between the outsourced third party logistics services and service delivery measures. Besides the regression analysis findings indicated that a substantial; 71.2% of the independent variable which was service delivery measured by productivity, customer satisfaction, productivity and cost reduction, was well explained by the outsourced third party logistics services.

5.3 Conclusion

Over the past decades there has been a trend in the adoption of modern means of communication based on the changes in the environment over the years. Telecommunication firms play a vital role in ensuring that communication services are well provided to their customers. Outsourcing has been a very common trend adopted by many firms in the market to ensure that they remain competitive in the market by outsourcing their non-core activities

to service providers who are able to provide services better than them. By outsourcing, a firm is able to focus on its core activities, cut on costs, and ensure that they offer quality services to their customers. A firm may outsource a number of noncore activities including cleaning services, security services among others. Logistics management is made up of various activities including transportation, inventory management, material handling, and order processing among others.

The researcher took a detailed preview of the previous studies that had been carried out related on the topic of study in order to identify the various gaps in knowledge that this research intended to fill. In order to attain this, the researcher carried out library research .The researcher used descriptive research methodology in ascertaining the set objectives. Quantitative approach was used as the approach in this study. The target population was telecommunication firms in Nairobi Kenya. The study used questionnaires in data collection from the respondents in these firms. Data analysis was carried out using descriptive analysis and regression analysis.

This study was aimed at ascertaining the extent to which the outsourced third party logistics had been implemented in telecommunication firms in Nairobi and their impact on service delivery.

From the results it was concluded that outsourcing third party logistics services had been implemented in the telecommunication firms in Nairobi to a great extent .The findings indicated that most of the respondents were aged between 34-35 years. Most of the respondents were male indicated by 53.35 of the respondents. In addition most of the respondents had a degree indicated by 70% of the respondents.86.7% of the respondents were from the logistics department and 46.7% of the respondents had 5-20 years' experience.

The findings indicated that a great number of the respondents indicated that logistics outsourcing third party logistics had been implemented in the telecommunication firms in Nairobi. This was indicated by the positive mean values of the various outsourcing third party logistics services. Besides the results also indicated high response rates of more than 60% of the respondents ascertaining to the fact that the respondents outsourcing third party logistics services had been implemented to the various telecommunication firms to a very great extent. The findings also indicated that there exists a positive relationship between the outsourced third party logistics services and service delivery in telecommunication firms in Nairobi in that an adoption of these services leads to improved performance. The regression analysis

indicated that an increase in any of the outsourcing third party logistics services leads to increased levels of service delivery.

5.4 Recommendation

Based on the conclusions indicated above, this study recommends the following. That there is need to explore on the various challenges faced by the telecommunication firms in the implementation of the various outsourcing third party logistics services. In doing this the various, conclusions indicated above, the following recommendations were made for telecommunication firms. In so doing they will be able to improve their outsourcing services and hence resulting to long term performance improvement and customer service delivery. Besides studies can be carried out on other telecommunication firms outside Nairobi to ascertain comparison between them and the firms located in Nairobi in terms of levels at which they outsource their third party logistics.

5.5. Limitations of the study

The study findings were applicable to telecommunication firms only in Nairobi. This is a limitation since the findings cannot be used for generalization in other areas other than Nairobi County only. In addition to that, the study was solely focused on telecommunication firms and the results cannot be applied to other sectors and firms like manufacturing, banking among others. The study was on logistics outsourcing and service delivery, this is a limitation since the study was focused on specifically logistics outsourcing only and not outsourcing as a whole.

5.6 Suggestions for further research

The aim of this study was to establish the extent to which outsourcing of third party logistics had been implemented in telecommunication firms in Nairobi. Despite the fact the objectives of the study were attained, the study recommends that this was a cross sectional study of telecommunication firms in Nairobi only .A further research needs to be done on other firms other than telecommunication firms, a study to be done on telecommunication firms in Kenya in general rather than in Nairobi alone.

REFERENCES

- Alden, A., Fenech, T., Golder, M., Refalo, I., & Sammut, C. (2013). *Outsourcing for Success*. MIT.
- Baily, P. (2005). *Purchasing, Principles and Management*. *International Journal of Purchasing & Materials Management*.
- Berglund, M., van Laarhoven, P., Sharman, G., & Wandel, S. (1999). *Third-Party Logistics: Is There a Future?* *International Journal of Logistics Management*, 59-70.
- Chain Performance Management: A comprehensive Literature Review. *International Journal of Academic Research in Business and Social Sciences*
- Communications Authority of Kenya. (2017). *Communications Authority of Kenya Third Quarter Sector Statistics Report for the Financial Year 2016/2017 (January-March 2017)*. Nairobi: Communications Authority of Kenya.
- Fishman, C. (2012, December). *The Insourcing Boom*. Retrieved from *The Atlantic*: <http://www.theatlantic.com/magazine/archive/2012/12/the-insourcing-boom/309166>.
- Gay, C., & Essinger, J. (2000). *Inside Outsourcing*. London: Nicholas Brealey Publishing.
- Karia, D. W. (2014). *The Impact of Outsourcing Strategy on Service Delivery in Nairobi City County*. Nairobi: University Of Nairobi.
- Maltz, A.B. (1994), "Outsourcing the warehousing function: economic and strategic Considerations", *Logistics and Transportation Review*.
- Masaba, R., & Pule, S. (2015). *The Practice of Outsourcing and Service Delivery: A Case Study of Colline Hotel Mukono – Uganda*. *International Journal of Science and Research (IJSR)*, Vol. 5, No. 6 .
- Matu 2010 *Outsourcing management tool for enhanced efficiency and effectiveness; Unpublished MBA Project, University of Nairobi*
- Mcivor, R. (2013). *What Do We Know About Services Outsourcing?* Edinburgh: The Institute Of Chartered Accountants Of Scotland.
- Mugenda, A., & Mugenda, O. (1999). *Research Methods*. Nairobi: Longhorn Publishers.
- Ong, G. (2014, July 2). *Think Piece: Strategic Considerations for Outsourcing Service Delivery in the Public Sector*. Retrieved from Civil Service College, Singapore.
- Rao, K., Young, R.R. and Novick, J.A., (1993), "Third party services in the logistics of global Firms", *Logistics and Transportation Review*
- Robinson, C. (2011). *Product Engineering Outsourcing: Looking Beyond Cost Savings*. Edson, New Jersey, U.S.A: Xoriant Corporation.

- Sang.K (2010), 'Outsourcing in Kenyan Universities: An Examination of Challenges and Opportunities'; International Journal of Business and Social Science:
- Sealock, A., & Stacy, C. (2013, January 16). Why Some U.S. Companies are Giving Up on Outsourcing. Retrieved from Forbes: CIO Network: <http://www.forbes.com/sites/ciocentral/2013/01/16/why-some-u-s-companies-are-giving-up-on-outsourcing/>
- Srabotic, A., &Ruzzier, M. (2012). Logistics Outsourcing: Lessons From Case Studies.
- Stewart, G. (1995). Supply chain performance benchmarking study reveals keys to supply chain excellence. Logistics Information Management
- The firm Limited. (2017). about us - The firm. Retrieved from The firm: <https://www.the-firm.co.ke/about>
- Tian, Y., Ellinger, A. E., & Chen, H. (2010). 'Third party logistics provider customer orientation and customer firm logistics improvement in China. InternationalJournal of Physical Distribution & Logistics Management,
- Wilding, R., &Juriado, R. (2004).Customer perceptions on logistics outsourcing in the European consumer goods industry.International Journal of Physical Distribution & Logistics Management
- Zaryab, S., &Shafaq, R. (2014). The Role of Logistics Service Providers in Supply
- Zikmund, W. (2000).Business Research Methods. New York: Harcourt Publishers.

APPENDICES

Appendix I: Research Questionnaire

This questionnaire has been designed to collect information on logistics outsourcing and service delivery at Telecommunication firms. Please read carefully and answer the questions as honestly as possible. The information gathered will be used purely for the purpose of academic research and will be treated with utmost confidence.

Instructions

1. Tick appropriately in the box or fill in the space provided.
2. Feel free to give further relevant information to the research.

PART A: BIOGRAPHIC INFORMATION

1. Your Gender?

a) Male b) Female

2. Your age bracket in years?

Less than 30 31-35 36-40 41-45 46-50 More than 51

3. Your highest level of education?

Diploma Degree Master's degree PhD

Any other Specify.....

4. Your management level at the firm

Senior Level Management

Middle Level Management

Lower Level Management

5. How long have you worked at the firm?

Below 5 years

5 to 10 years

Above 10 years

6 Which department do you work at the firm?

PART B: LOGISTICS OUTSOURCING SERVICES ADOPTED AT THE FIRM.

7. To what extent has the following logistics services have been implemented at the firm?

Use **1-** Very low extent, **2-**Low extent, **3-**Moderate extent, **4-** Great extent, **5-** Very great extent

Logistics outsourcing services	1	2	3	4	5
Distribution management					
Warehousing management					
Packaging					
Transportation management					
Inventory handling and management					
Order processing and management					
System management and improvement					
Information management					
Material handling management					
Standardization of procedures					
Others (please specify)					

7b.) In the space provided below, please suggest additional areas where you feel logistics outsourcing can be implemented at the firm

.....

PART C: LOGISTICS OUTSOURCING AND SERVICE DELIVERY

9.) Please indicate the extent to which your Service delivery has been improved by outsourcing the following practices? Use the scale of: **1-** Not at all, **2-** Small extent, **3-** Moderate extent, **4-** Great extent, **5-** Very great extent

LOGISTICS OUTSOURCING SERVICES	5	4	3	2	1
Transportation					
Subcontracting vehicles for transportation					
Outsourcing fleet drivers					
Subcontracting loading and offloading manpower					
Outsourcing fleet tracking and management systems					
Outsourcing vehicle repairs and maintenance					
Information sharing management					
Visibility between various departments in the organization					
Paperless operation in the organization.					
Availability and proper flow of information in the organization					
The firm utilizes information technology in coordinating its activities with suppliers.					
Customers data and information is well secured					
Warehousing management services					
Outsourcing warehouse staff					
Stock taking and management					
Data entry					
Storage space and equipment					
Repairs and maintenance of warehouse facilities and machines					

Material handling services					
Quality checks on raw materials (quality raw materials)					
Adoption of modern storage infrastructure i.e. cold rooms and racking system					
Use of modern material handling equipment					
Use of modern technologies to track materials					
Distribution Management					
Managing entire distribution process					
Reconfiguring the process in an efficient manner					
Outsourcing the overseeing the movement of goods from supplier or manufacturer					

I sincerely appreciate the time you spared to complete this questionnaire

Appendix II: List of Telecommunication Firms

Access Group Kenya
African Mobile Money
Africa Online
Airtel Kenya Limited
Airtel money
Bandwidth & Cloud services Limited
Equitel Kenya
Inter-Connect Ltd
Jambonet
Jambo Pay
Jamii Telecommunications Limited
Kenya Data Networks
Kenya Internet Exchange
Kenya Posts and Telecommunications Corporation
Mobitelea Ventures Limited
Money Gram
Mobicash
Mpesa
MTN Business Kenya
Pesa Pal
Safaricom
Seacom Limited
The Firm Limited
Telkom Kenya Limited
Tespok Kenya Internet exchange
Western Union
Yu Cash
Xtranet Telecommunication

Zuku limited (CAK 2017)