EFFECT OF LOGISTICS OUTSOURCING ON THE OPERATIONAL PERFORMANCE OF SHIPPING INDUSTRY IN KENYA

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DECLARATION

I declare that this project proposal is my original work and has not been submitted to any other college, institution or university for an award of degree or any other certificate.

Signed……..Date……

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This project proposal is submitted for examination with my approval as the University supervisor

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DEDICATION

I wish to dedicate this work to my wife Cynthia and son Jayson for their unwavering support and tireless sacrifices of their precious family time throughout the entire degree program and especially during the research project.

I also dedicate this work to my parents Mr. & Mrs. Kyusya, my brother, Eng. Allan and my sister Lily for their tireless prayers and encouraging me to complete the study.

May Almighty God bless them.

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ABSTRACT

Logistics services outsourcing has become a popular practice among the shipping companies all in the need to take advantage of the various advantages associated with outsourcing. The objective of the study was to determine logistics outsourcing effect on operational performance of shipping industries in Kenya. Contracting out provision of logistics services to a firm with competitive advantages in terms of reliability, quality and cost was found out to be the main driver of outsourcing. However the various studies covered have not extensively delved into logistics outsourcing in relation to the performance of shipping companies in Kenya. The population of the study in this research was 42 shipping companies' operating in Kenya as per the KSAA, 2015 and the study was a census survey since the population was pretty small. The study used primary data which was collected through a structured questionnaire from Logistics and operations managers or their equivalents which was administered by 'drop and pick' method. The response rate was 76.2%. The data was analyzed using descriptive statistics with the main analysis tools being frequencies, mean and standard deviation and multivariate linear regression by utilizing the Statistical Package for Social Sciences (SPSS). The results established that the firms opted to outsource their services due to its advantages and its possible influence on operational performance, as it enables the firms to focus on its core competencies. The logistics outsourcing practices adopted by the shipping firms will in the long run determine their survival as they would seek to reduce operating costs, improved customer satisfaction and timely delivery of services to clients which in turn increase productivity and reduce lead time and improved profits. The study confined itself to shipping firms in Kenya and the findings may not be applicable in other sectors as a result of uniqueness of the shipping firms. It is therefore recommended that the study is replicated in other service sectors to establish their logistics outsourcing services and performance.

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LIST OF ABBREVIATIONS AND ACCRONYMS

EDI	**:**	Electronic Data Interchange
FTL	**:**	Full truckload
GDP	**:**	Gross Domestic Product
ICT	**:**	Information Communication and Technology
JIT	**:**	Just in Time
KSAA	**:**	Kenya Ship Agents Association
LSP	**:**	Logistics Service Providers
LTL	**:**	Less-than-truckload
RBV	**:**	Resource-Based View
SACCO	**:**	Savings cooperative and credit Society
SME	**:**	Small and Micro Enterprise
SPSS	**:**	Statistical Package for Social Sciences
TCA	**:**	Transaction cost analysis
UNCTAD	**:**	United Nations Conference on Trade and Development
US	**:**	United States

CHAPTER ONE: INTRODUCTION

1.1 Background of the Study

Outsourcing of logistics services is one of the strategies which are becoming very common with many organizations today. Outsourcing is a popular practice in business whereby organizations move some of a firm's internal activities and decision responsibilities to outside providers thus enhance their productivity in their operations and service delivery, (Chase, 2004). Logistics outsourcing practices include information management, transportation management, warehouse management, material handling management and inventory management (Forslund, 2012). The highly competitive environments along with customers' demands for tailored products and services has forced companies to continuously evaluate, improve and reengineer their operations. Today organizations most significant demands would be, maximizing logistics value by reducing business costs and lead time, improving service flexibility, responsiveness and reliability (Lee & Song, 2015).

Operational performance improvement has been achieved by organizations which are using logistics service providers in their operations as it's become one of the major strategies that companies are adapting to remain competitive in the current dynamic environment. House & Stank, (2001), third-party logistics provider can help a firm achieve substantial results in its operational performance. As per (Muller, 1991) an improvement in the delivery process, resulting from the outsourcing process, can also contribute towards competitive advantages, as contributed by the product. Logistics outsourcing resulted in operational performance improvement through; decreased operating costs, improved customer satisfaction, increased productivity, timely delivery of services to clients, reduced lead time and improved profits, faster response to customer's demands and use of modern technology in offering services (Mulama, 2012).

Outsourcing all or part of logistics function in a logistical supply chain to logistics service providers has now become the norm across the industry. The study will be anchored on the following theories. The Resource-Based View (RBV), Theory of the Firm (Penrose 1959); Views the firm as a bundle of resources and competences that represent the basis for their competitive advantage, sees resources as key to superior firm performance. Transaction cost analysis (TCA) theory proposes that firms exist in order to maximize profits by reducing transaction costs and Transaction Costs

Economics propose that, a firm's ownership decisions focus on minimizing the sum of its transaction and production costs (Williamson, 1975). In the network theory perspective, (Ellram, 1990) logistics outsourcing enables the firm to manage its supply chain as a single entity through the application of relational contracting and network. The theories provide a justification for the establishment of alliances between organizations and their service providers.

1.1.1 Logistics Outsourcing

Logistics is responsible for the movement of all materials into and out of the organization. An organization has to make good decision in several related areas to get an efficient flow of cargo for example, choose reliable suppliers negotiate terms for delivery use appropriate transport, storage etc (Qureshi, Dinesh, & Pradeep 2007). The institute of logistics and transport views this concept as the time related positioning of resources or the strategic management of the total supply chain. Today a company most often will contract with companies that specialize in logistics to handle all or most of its logistics functions, for the transportation companies often are called third party logistics companies. In the face of increasingly intensified competition in the emerging global economy, many firms are progressively turning to outsourcing of their logistics function.

An examination of industry practices, (Rabinovich, Windle, Dresner and Corsi 1999) in a study on outsourcing of integrated logistics functions adopted the variables used by (Bowersox, 1974) which included; facility location, transportation, inventory management, logistics ICT systems and material movement. Halldo´rsson and Tage-Larsen, (2004), viewed outsourcing as a viable business strategy because turning non-core functions over to external suppliers enables companies to leverage their resources, spread risks and concentrate on issues critical to survival and future growth. Solakivi, Töyli, Engblom & Ojala, (2011) in a study on Logistics outsourcing and company performance of SME's, identified transport; order processing, invoicing, logistics IT systems, materials management and value-added service as the main variables in the study.

A study on logistics outsourcing practices and performance of large manufacturing firms in Nairobi (Mulama, 2012) found out that majority of this firms were outsourcing the transportation management, warehouse management and material handling management while half of the firms outsourced information management

and inventory handling management. Githinji, (2012) sought to establish the impact of logistics outsourcing on the universities "supply chains" performance, logistics functions that are commonly outsourced by universities in Nairobi County are only the non-controversial functions with benefits accruing in reduction in overhead costs, improved university operations and customer service, improved focus on universities core competency and mandate, time saving, and security within campus. This study will adapt some of the variables including the transportation management, warehouse management, material handling, logistics ICT systems, facility location and inventory handling management, as they are the aspects that comprise logistics outsourcing.

1.1.2 Operational Performance

Operational performance is a process of assessing progress toward achieving predetermined goals, including information on the efficiency with which resources are transformed into outputs both goods and services. The quality of those outputs is how well they are delivered to clients and the extent to which clients are satisfied and outcomes is the results of a program activity compared to its intended purpose. Logistics outsourcing improved operations performance by cutting down logistics cost, thereby enabling them to offer their products and services at more competitive rates to beat the stiff competition (Qureshi, Dinesh & Pradeep, 2007). LSPs are strategically selected to enable create product differentiation by providing flexibility, speed with minimal holding off in a logistical supply chain. A study by (Green, Whitten, & Inman, 2008) found a positive relationship between logistics performance and organizational performance within the manufacturing sector.

An interesting observation by (Solakivi, Töyli, Engblom & Ojala, 2011); Logistics was being handled equally efficiently in the surveyed companies regardless of whether it had remained in-house or been outsourced. This finding suggests that the fit between the company context and its outsourcing decision might be more important an operational performance driver than outsourcing per se. Mulama, (2012) in a study of logistics outsourcing and performance of large manufacturing firms, found out that various benefits accrue to a firm as a result of outsourcing all or part of its logistics services to a third party company through reduced operation costs which results in operational and organizational efficiency.

1.1.3 Shipping Industry in Kenya

The shipping industry is in the services sector comprised of different shipping companies globally whose main specializations include: Cargo shipping services, Chemical tankers, Oil tankers services for transportation of Petroleum and its products, Liner Freight Shipping Services for containerized cargo and Cargo Shipping Services for liquid gas. The Shipping industry comprise of firms that offer transport services by sea thus they facilitate movement of cargo from one place to another using ships therefore they fall under the transport sector (International chamber of shipping). In this study, will concentrate on the liner shipping which is containerized cargo as they are the major category in the industry with various logistics requirements.

Although this company's core activity is shipping, they are forced to outsource the support activities in the value chain so as to be competitive and offer a full package logistics solution to its customers. Porter describes the value chain as the internal processes or activities a company performs to design, produce, and market, deliver and support its product. He further states that "a firm's value chain and the way it performs individual activities are a reflection of its history, its strategy, its approach to implementing its strategy, and the underlying economics of the activities themselves" (Porter, 1985). Porter describes two major categories of business activities: primary activities and support activities.

Liner shipping is the service of transporting goods by means of high-capacity, ocean-going ships that transit regular routes on fixed schedules. According to statistics from world shipping council, there are approximately 400 liner services in operation today, most sailing weekly. Liner vessels, primarily in the form of containerships and roll-on/roll-off ships, carry about 60 percent of the goods by value moved internationally by sea each year. Container shipping could lay claim to being the world's first truly global industry and likewise claim to be the industry which, more than any other makes it possible for a truly global economy to work. As per United Nations Conference on Trade and Development (UNCTAD), the exchange of capital, goods and services across international borders is known as international trade and in many countries it represents a significant share of the nation's gross domestic product (GDP). Liner ships transport approximately 60 percent of the value of seaborne trade or more than US $4 trillion worth of goods annually.

Over recent decades as the economy of the world has become increasingly globalised with the re-location of production and the emergence of new markets, the opportunities for international freight movement have grown. Today more than 80 per cent of world trade by volume moves by sea (UNCTAD, 2013) as the raw materials for and the outputs of manufacturing are carried inter-regionally around the globe. There are several categories of seaborne cargoes, but an increasing proportion of this sector is borne by container shipping, which now accounts for around one third of world trade by value (World Shipping Council, 2010). The Kenya maritime sector is touted to be the key economy driver, while the shipping industry contributes the bigger share of Kenya's international trade and its potential is yet to be exploited.

1.2 The Research Problem

Logistics outsourcing functions are noncore and can be outsourced so as to fulfill the customer demand for a full package service however management should not expect automatic gains from logistics outsourcing, and should rather analyze the company specific characteristics that support or in some cases suffer from the outsourcing decision (Solakivi, Töyli, Engblom & Ojala, 2011). For this reason companies need method tools and trading partner relationships that allow them to be more flexible and adapt quickly to these changes. Wambui, (2010) findings indicated very minimal logistics outsourcing activities in the Kenya Armed force which was due to the working setup thus outsourcing was applied on the non-essential services such as stationary supplies.

The extent to which the shipping companies own shipping knowledge has a positive impact on the improvement of organizational innovation and logistics value to improve operational performance in terms of reducing business costs and time and enhancing service flexibility, responsiveness and reliability (Lee & Song, 2015). In a study on application of outsourcing strategy among shipping firms in Kenya (Kaveke, 2014) looked at strategies employed and factors influencing adaption of outsourcing strategy. The findings were that outsourcing strategy was important and had numerous advantages which aim at increasing their service delivery and competitiveness.

Kamuri, (2010) researched on challenges facing the implementation of logistics outsourcing at the Kenyatta National Hospital. Bosire, (2011) researched on the impact of logistics outsourcing on lead time and customer service among supermarkets in Nairobi Kenya. Kimulu, (2014) found out Logistics outsourcing

being a non-core activity by the banks is however well established and endowed thus adds value to its operations performance. Kaveke, (2014) did a study on application of outsourcing and factors influencing adaption of outsourcing strategy among shipping firms in Kenya. Although some related studies have been done on the subject, gaps still exist and more information is needed to understand how logistics outsourcing affect the operational performance in the shipping industry in Kenya. The research therefore sought to answer the question; what is the effect of logistics outsourcing on the operational performance in the shipping industry of Kenya?

1.3 Research Objectives

The objectives for this study were:

i. To establish the logistics outsourcing practices adopted by the shipping industry in Kenya.
ii. To determine the effect of logistics outsourcing on the operational performance in the shipping industry of Kenya.
iii. To find out the challenges of logistics outsourcing on the operational performance of the shipping Industry in Kenya.

1.4 Value of the Study

The study was beneficial to the academicians in contribution to the existing literature as a useful source of reference in the field of logistics outsourcing within the shipping industry and also acts as an insight for further research to refine and extend the present study.

The government and other organizations are expected to use the findings in policy formulation and implementation with respect to logistics outsourcing in the shipping industry in Kenya.

The study was a source of information to the shipping companies to evaluate the logistics practice outsourced with regards to their operational performance and company management to formulate appropriate strategies to be applied to enhance performance in the shipping industry.

CHAPTER TWO: LITERATURE REVIEW

2.1 Introduction

The chapter presents a review of the literature related to the study, its role of Logistics outsourcing practices and their effect on operations. This is presented in form of theoretical review, logistics outsourcing, logistics outsourcing and operational performance, empirical review and summary of literature review.

2.2 Theoretical Review

Many scholars report an increasing use of logistics service providers with different theories being anchored in these studies. Many of these theories have been utilized to give a better understanding of logistics outsourcing to the academicians and to help practitioners successfully manage the process. These theories are; the resource based view, transaction cost analysis, agency theory and network theory perspective.

2.2.1 The Resource Based View

RBV theory views the firm as a bundle of resources (Penrose, 1959), according to its principles, an organization must secure an efficient bundle and flow of the right type of resources from its environment in order to survive and improve its operational performance. Both the outsourcing user and outsourcing provider must guard against wandering from their core competencies in directions that detract from their ability to create value (Prahalad & Hamel 1990). This theory rests on two key points. First, that resources are the determinants of firm performance and second, that resources must be rare, valuable, difficult to imitate and non-substitutable by other rare resources to create a competitive advantage. (Priem & Butler, 2001). Accordingly, RBV is particularly appropriate for examining logistics outsourcing because firms essentially use outsourcing as a strategy for gaining access to other firms' valuable resources.

Firms develop dynamic capabilities to adapt to changing environments; they develop firm-specific resources and then renew them to respond to shifts in the business environment. According to RBV, outsourcing is a strategic decision, which can be used to fill gaps in the firm’s resources and capabilities (Malhotra & Grover, 1998). Outsourcing can also be viewed as a resource-providing contract in which the client provides a market outlet for the service offering, and may even supervise and supply key inputs to the relationship with the logistics service provider. Conflicts may occur as a result of user and providers of outsourcing each strive to maximize their profits

and attain service goals. The customer sees as contributing to its competitive advantage may reduce the provider's advantages and what the provider sees as their core competency may not fulfill the service requirements of the user (Hobbs, 1996).

2.2.2 Transaction Cost Analysis

This theory states that organizations are economic actors using the most efficient mechanism for transactions (Williamson, 1981) and can be used to analyze outsourcing decisions concerning operational performance. This theory posits that there are costs in using a market which include operational costs such as search costs and inventory holding costs as well as the costs of writing and enforcing a contract. When a transaction is carried out, a number of costs arise in the economic system, (Williamson 1985) defines these costs as transaction costs and divides them into three main categories: Information costs, related to seeking information on the potential partner, Bargaining costs, related to negotiating and drawing up of contracts where all possible situations in future transactions are considered and Enforcement costs, to enforce performance, resolve conflicts and renegotiate contracts. Excessive costs may cause transactions to be transferred to other institutions through outsourcing, these institutions in turn internalize market transactions by governing them through long-term contracts that create mutual dependence, improve reciprocal control, curb opportunism, and allow for better cooperation between the parties involved (Williamson, 1985).

If a firm opts to outsource, it will increase its transaction costs and most likely lose its economies of scale (Grover, 1996) because the increased size of the firm will require increased internal co-ordination. It would however take advantage of the economies of scale and scope of the vendor while at the same time reducing internal coordination costs. By outsourcing the firm will increase its external co-ordination costs of which will depend on the level of asset specificity. High asset specificity arises where the firm's products and services are customized and not easily transferable to alternative vendors (Williamson, 1985). In contrast more standardized products and services could reflect lower external co-ordination costs and the vendor may achieve economies of scale and would be a more viable option for outsourcing.

2.2.3 Network Theory Perspective

The network perspective emphasizes net value over least cost as the driver for its implementation (Skjoett-Larsen, 2000). The significance of these drivers in contractual relations is dependent on firms' abilities to manage their contractual relationships. Further experience at managing these relationships results in the development and refinement of competitive routines for managing inter-firm transactions and information transfer across firm boundaries. The network perspective adds considerably to the understanding of the dynamics of third party relations between individuals within the parties. The common understanding and knowledge of each other's visions, attitudes and past relations experiences play a major part in the development of third party cooperation.

Applied to logistics outsourcing, network theory focuses on the formation of relationships, organizational structures, and alliances (Ellram & Cooper, 1990). According to the network perspective firms lacking adequate in-house logistics capabilities enter into close cooperation with third-party providers that possess complementary skills that these firms can use to deliver benefits. As a whole, transportation is the most commonly outsourced activity; including related support services such as freight bill audit/payment and shipment consolidation, warehousing and customs clearance, and freight forwarding. The benefits primarily fall into two categories: cost savings like on fuel, wages, sales administration overhead, asset reductions in fleets and warehouses and service improvements for example, reduction of order cycle time, inventory, and the cash-to-cash cycle (Coyle, Bardi & Novack, 2006). Network theory represents an attempt to develop an opportunism-independent theory of the firm while broadening the focus from cost minimization to incorporate the management of multiple firms' resource base (Madhok, 1997).

2.3 Logistics Outsourcing

Outsourcing of logistics services is becoming more popular and relevant today especially in the wake of globalization. Third party service providers are highly specialized and can offer the same service at a significantly lower cost thus firms can better manage the forces in the macro environment, be competitive and help the firm improve its overall performance.

2.3.1 Transportation Management

Transport management is a service rather than a combination of transport options, in that it attempts to internalize some aspects of both transport and logistics, and also to overcome the operational and organizational issues associated with using multiple modes and several links in the transport chain. From a study on logistics outsourcing and performance of commercial Banks in Kenya, (Kimulu, 2014) found that route optimization had been achieved and fleet tracking tools increased vehicle visibility to large extent while vehicle scheduling improved to a moderate extent.

Logistics platforms connect different modal segments of the transport system, freight markets, and freight forwarders. Considering this alternative and managing it adequately may create critical competitive advantages in the supply chain, from the suppliers of raw materials to the final consumer. Adequate structures are required for distribution activities where coordination between modes and transportation systems is essential. Integration and coordination also implies new forms of relationships between suppliers, distributors, freight forwarder firms, and possibly even consumers that impudence the management of the supply chain, (Fierro & Benitez, 2009).

Transport managements practices optimize freight and in turn, achieve cost savings without reducing service levels to customers. There are three primary segments of motor freight, or modes; less-than-truckload (LTL), full truckload (FTL) and parcel modes. Using a pooling strategy, shipments can be combined to create a full truckload shipment out to a pool distribution facility that serves the geographic area. Shipment Aggregation on the other hand creates a single shipment of multiple orders, originating from the same shipper to the same destination on the same day that would have otherwise have been released as separate shipments. Shipment Consolidation is an option when multiple LTL orders can be combined with a truckload sized order that is not at full capacity, if they can be part of a stop-off in route to the final truckload destination (Bardi & Tracey, 1991). To deploy this strategy, transportation is outsourced to specialized firms whereby individual shipments are combined into legs of continuous moves solutions for minimizing empty miles.

2.3.2 Warehouse Management

When considering the level of effort involved in warehouse operations, the greatest expenditure of effort is in the picking process. To gain efficiencies in picking the labor time to pick orders needs to be reduced and this can achieved in a number of

ways. Companies with the most efficient warehouses have the most frequently picked items closest to the shipping areas to minimize picking time. These companies achieve their competitive advantage by constantly reviewing their sales data to ensure that the items are stored close to the shipping area are still the most frequently picked, (Simchi & Kaminsky, 2005).

Warehouse layout is also important in achieving greater efficiencies thus in an effort to minimizing travel time between picking locations can greatly improve productivity. However, to achieve this increase in efficiency, companies must develop processes through the use of new technology so as to regularly monitor picking travel times and storage locations. Warehouse operations that still use hard copy pick tickets find that it is not very efficient and it's prone to human errors. To combat this and to maximize efficiency, world class warehouse operations have adopted hand-held electronic readers and printers. Companies are also introducing pick-to-light and voice recognition technology (Petroni, 2000).

2.3.3 Logistics ICT Systems

Information has always been central to the efficient management of logistics but now, enabled by technology, it is providing the driving force for competitive logistics strategy (Karia & Wong, 2013). The successful integration of information within an organization is a powerful enabler for: reduced costs, increased productivity, and improved customer service this therefore implies that it's the making, modification technique and craft system in order to solve a problem or perform a function.

Information is crucial in service outsourcing so that the same can be relayed to the customer without contradiction. This is essential to ensure productivity progress is not affected and incase of any problem it's addressed as soon as possible. Best practices that logistics firms would employ include the analysis of the information demanded, intelligent information storage, the optimization of the flow of information and securing technical and organizational flexibility. Hammant, (1995) grouped four key themes of technological trends and innovations which have an impact on the use of information technology in logistics and important to the current and future use of information technology to support logistics operations across all industry sectors. The four key themes are concerned with: integration and flexibility, EDI, hardware and communications technology.

2.3.4 Facility Location

Facility location decisions are a critical element in strategic logistics planning meant to adapt to dynamic changes in business environments surrounding the firm's supply - chain operations. The ramifications of facilities site are broadly based and long - lasting, impacting numerous operational and logistical decisions (Petroni, 2000). High costs associated with property acquisition and facility construction make facility location or relocation projects long - term investments. But although important, cost optimization is progressively being sided by logistic service considerations in the site location decision - making process.

2.3.5 Inventory Handling Management

Inventory management practices lead to firms maintaining lean inventory that is inventory should not be too much or too little enabled by periodical reviews and revising stocking patterns and norms. Selection of the vendor must be properly done with subsequent checks and balance in the process. Inventory is dependent upon the demand as well as the supply chain delivery time. Often companies follow one stocking policy for all items. Vaidyanathan, (1998) cycle counting practice is an inventory accuracy audit technique where inventory is counted on a cyclic schedule rather than once a year. A cycle inventory count is usually taken on a regular, defined basis often more frequently for high-value or fast moving items and less frequently for low-value or slow moving items. While some items may have a longer lead-time thus affecting the inventory holding, the demand pattern and the hit frequency in terms of past data may show up differently for each of the inventory items. Therefore one standard norm does not suit all and can lead to over stocking of inventory as well as inefficiencies in the system.

By outsourcing inventory management organization can improve on its operations performance. Mulinge, (2014) results depicted 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. Key purpose in inventory handling management is Inventory categorization; understanding the inventory types and their specific characteristics then building inventory stocking parameters taking into account the unique characteristics of the particular inventory. Segregate inventory on basis of whether it’s obsolete hazardous or expired Catalogue management; studying inventory demand patterns, movement patterns and cycles to

build suitable inventory norms for different categories of inventory. Carry out quality checks before receiving commodities into inventory. Employing machinery and portable electronic reader devices, which can be carried by employees, will boost productivity while reducing data entry error (Simchi & Kaminsky, 2005).

2.4 Logistics Outsourcing and Operational Performance

Outsourcing entails shifting of traditional corporate activities to parties outside the firm with an aim of gaining access to world class capabilities. Global competition pressurize organizations to increase the quality of all their service delivery and at the same time reduce their costs. The solution to both of these objectives is Professional logistics management through outsourcing of logistics services. Cho, Ozment & Sink, (2008) did a study to examine the impact of logistics capability and logistics outsourcing on firm performance in an e-commerce market environment. The study results advance knowledge concerning a firm's logistics capability, logistics outsourcing, and, ultimately, superior firm performance in e-commerce, thus all main effects were significant and positive. Wallenburg, Cahill, Goldsby & Knemeyer, (2010), in a study on Logistics outsourcing performance and loyalty, found that performance is an important lever to generate loyalty which was achieved through logistics outsourcing. They found out that logistics outsourcing improved performance through exceeding goals and expectations of the customer and improved loyalty.

Buyers of logistics services have a dilemma: there is a trade-off between service quality and the price of services, and generally also between long-term partnership and competitive markets. Moreover, the buyers need to consider outsourcing also from a broader network perspective, and how to utilize the competences and resources of specialized service providers in the logistics service markets (Joskow, 2005). The link between outsourcing and performance is less developed empirically, Quinn, (1999) and Porter, (1997) in their normative literature suggest that outsourcing is one of the key sources of increasing firm's performance arguing that such a positive relationship is because outsourcing makes a firm more nimble and allows it to increasingly focus on its core activities. It also increases the firm's strategic flexibility to deal with technological or volume fluctuations (Kotabe, 1998).

Mulama, (2012) in a study of logistics outsourcing and performance of large manufacturing firms, found out that various benefits accrue to a firm as a result of outsourcing all or part of its logistics services to a third party company through reduced operation costs which results in operational and organizational efficiency. Contracting out logistics services to a firm with competitive advantages in terms of reliability, quality and cost was found out to be the main driver of outsourcing. In a study on logistics outsourcing and performance of commercial Banks in Kenya, (Mulinge, 2014); the study 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.

On the relationship between outsourcing and operational performance, (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. The researcher therefore concluded that, though outsourcing is highly practiced in by SACCOs in Nairobi County, it has not significantly added much value to performance.

2.5 Empirical Review

Outsourcing has grown rapidly to impact many activities of organizations and can cover many areas, including the outsourcing in both manufacturing and services industry. Jiang, Frazier and Prater, (2006) in a study aimed at empirically investigate the effect of outsourcing on the firm level performance metrics providing evidence about outsourcing influences on a firm's cost-efficiency, productivity and profitability. The findings were that no significant improvements in a short time because of competitive pressure on prices but had obvious significant improvement and cost efficiency as a result of more available resources from outsourcing to invest in other productive capacities. Cho, Ozment, & Sink, (2008) on a study to examine the impact of logistics capability and logistics outsourcing on firm performance in an

e-commerce market environment. Multiple-item constructs were used to measure the strength of logistics capability and firm performance. Data obtained via a survey were analyzed to investigate relationships among constructs and various hypotheses were tested. Study results revealed logistics capability to be positively related to firm performance in the e-commerce market.

Solakivi, Töyli, Engblom, & Ojala, (2011) study purpose was to explore the current state of and future expectations concerning the usage of the outsourcing of logistics operations in SMEs, and to analyze and quantify the relationships between logistics outsourcing, costs and performance. The data were 223 manufacturing and trading SMEs from the Finnish logistics survey combined with detailed financial report-based data, both referring to the year 2008. In general, the findings were that management should not expect automatic gains from logistics outsourcing, and should rather analyze the company-specific characteristics that support or in some cases suffer from the outsourcing decision. House & Stank, (2001) in a case study research on the partnership formed between Melville Corporation, a leading specialty retailer in the USA, and Mercantile Logistics, a third-party provider of international logistical services. The partnership achieved its four major operational objectives: reduce total logistics cost, reduce transit time, improve information, and improve pipeline reliability.

A study by (Qureshi, Dinesh, & Pradeep, 2007) purpose was to model the key variables of logistics outsourcing relationship between shippers and logistics service providers (LSPs) and to study their influence on productivity and competitiveness of the shipper company. An interpretive structural modeling based approach was used to model the variables of logistics outsourcing relationship, These variables were classified as enablers; those which boost the "relationship bond" between shippers and LSP and outcome variables arising out of outsourcing relationship between shippers and LSPs. Findings were that a numbers of enablers influence the shipper's relationship with LSP, that results in to productivity enhancement and competitiveness.

Kimulu, (2014) did a study on logistics outsourcing and performance of banks in Kenya. A descriptive research design was used based on the population of 43 banks in Kenya and data collected through a standard questionnaire. The data was analyzed by the use of descriptive statistics and regression analysis. The findings were that

logistics outsourcing was well established and endowed in these institutions, add value to the banks overall competitive margins in the industry they operate in. are less faced with the various challenges.

Muriithi, (2014) in a study on outsourcing and performance of SACCO's in Kenya adopted an explanatory research design, did a census on the 34 SACCO's in Nairobi County where both primary and secondary data was collected by use of a questionnaire and analyzed using descriptive measures. The findings were that, though outsourcing is highly practiced by SACCOs Nairobi County, it has not significantly added much value to operation performance. A study by Mulama, (2012) looked at the effect of logistics outsourcing practices on the performance of large manufacturing firms in Nairobi, Kenya. Stratified random sampling method was applied to come up with the sample size and primary data was collected through a self-administered questionnaire. Descriptive statistics was used to analyze data using frequencies and percentages and findings were that outsourcing practices had effect on firms' performance as it resulted in increased productivity, organizational effectiveness, increased profits, continuous improvement, improved quality and improved quality of work life. Githinji, (2012) sought to establish the impact of logistics outsourcing on the universities "supply chains" performance. Logistics outsourcing was found to have benefits accruing in reduction in overhead costs, improved university operations and customer service, improved focus on universities core competency and mandate, time saving, and security within campus

2.6 Summary of Literature Review

Logistics is the process of planning, implementing, and controlling the effective and efficient flow of goods and services from the point of origin to the point of consumption. Green and Whitten, (2008, found that logistics is clearly a supply chain function in that it links manufacturers and customers although those customers may not be the ultimate customers in the supply chain. As the focal construct, logistics performance is positively impacted by supply chain management strategy and directly impacts marketing performance which, in turn, impacts the financial performance thus in overall have effect in operational performance.

Most third party logistics service providers may not meet the standards of service provision of the mother company which affects the company competitiveness. Despite these challenges, Logistics partnership in international logistics has shown that a

third-party logistics provider can help a firm achieve substantial results in business. The path to achieving these results is not without its difficulties, but many of these problems can be anticipated and appropriate actions taken to minimize their disruption. House & Stank, (2001) indicated that, establishing a measurement system that allows easy and integrated reporting of the status of the enterprise is essential if real progress is to be made in a logistics partnership.

CHAPTER THREE: RESEARCH METHODOLOGY

3.1 Introduction

This chapter presents the research methodology that was used to carry out this research. It embodies; the research design, population, the research instruments, data collection procedures and data analysis techniques.

3.2 Research Design

The study adopted a census survey design in determining the effect of logistics outsourcing on operational performance in the shipping industry in Kenya. This research design was used because the population of shipping firms in Kenya is not big. According to Tanur, (1982) a survey has three characteristics: data collection by asking people structured and predefined questions, it produces quantitative descriptions of some aspects of the study population with relationships between variables, or with projections of findings descriptively to a predefined population.

3.3 Population of the Study

The population for this study was 42 shipping firms in Kenya. According to (KSAA, 2015) there are 42 registered shipping firms actively operating in Kenya (see appendix I). The study was a census based on this population being relatively small and available within Mombasa County, where the entire population has offices therefore, accessible and timely data collection.

3.4 Research Instruments

The research instrument for this study was a questionnaire. Research instruments are very helpful tools to a research study in obtaining information relevant to the research (Wilkinson & Birmingham, 2003). The questionnaire was divided into 4 sections: Firsts Section consisted of questions that led to bio data of the shipping firms. Second Section consisted of questions in relation to logistics outsourcing in the shipping industry Kenya. Third Section covered questions on challenges of logistics outsourcing in the shipping industry. Fourth Section covered questions relating to operational performance. A maximum period of two weeks was allocated to drop and pick the questionnaires.

3.5 Data Collection Procedures

Primary data was collected by the use of a standard questionnaire that was administered by drop and pick method. Some were sent via email and a follow up by email and telephone was considered so as to increase the response rate. The respondents of this study were logistics or operations managers or their equivalents in all the 42 shipping firms in Kenya. The respondents were purposively selected since they were deemed to have wide knowledge of logistics outsourcing and shipping operations due to their positions and roles in managing the day to day affairs of the firms. Each organization received a questionnaire to be filled by either the logistics manager or operations manager depending on the organization set up, therefore a total of 42 questionnaires wire sent.

3.6 Data Analysis

The data analysis entails calculating the mean, standard deviation and performing regression analysis. The descriptive technique was used to analyze the data generated from section B of the questionnaire to meet objective one. Also descriptive technique was used to analyze data generated from section C of the questionnaire to meet objective three. Regression and correlation analysis used regression model to link the independent variables to the dependent variable on data generated from section B of the questionnaire for objective two.

The mean was calculated from scores obtained from the likert scale data. Standard deviation was calculated to show how logistics outsourcing by shipping firms deviate from the calculated mean. Operational performance was measured by calculating actual percentage mean of the data. The results were interpreted and presented using tables that facilitated description and explanation of the study findings. Statistical Package for Social Sciences (SPSS) software was utilized.

The regression equation took the form:

$$\mathbf{Y=\beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + \varepsilon}$$

Where:

Y= Operational Performance

X_1= Transport Management

X_2= Warehouse Management

X_3= Logistics ICT System

X_4= Facility Location

X_5= Inventory Management

β_0 = constant.

B_1 = Coefficient of transport management variable

β_2 = Coefficient of warehouse management variable

β_3 = Coefficient of logistics ICT system variable

β_4 = Coefficient of facility location variable

β_5 = Coefficient of inventory management variable

ε = Error term

CHAPTER FOUR: RESULTS, DATA ANALYSIS AND DISCUSSION

4.1 Introduction

This chapter presents an analysis of data collected and discusses the findings on the effect of logistics outsourcing on the operational performance of shipping industry in Kenya. Conclusion recommendation and challenges are also presented at the end of this chapter.

4.2 Demographic Information

4.2.1 Respondents Response Rate

From Table 4.1 below of response rate, the results show that out of the 42 targeted respondents, 32 successfully filled the questionnaires. This represents a response rate of 76.2%. This response rate was good and representative and conforms to Mugenda and Mugenda (2003) stipulation that a response rate of 50% is adequate for analysis and reporting; a rate of 60% is good and a response rate of 70% and over is excellent.

Table 4.1 Response Rate

Response	**Frequency**	**Percentage**
Response	32	76.2
Non responses	10	23.8
Total	**42**	**100**

Source: Research Data (2015)

4.2.2 The Period Company has been in Operation

From Table 4.2 which contains information on the respondents on the period the company has been in logistics/operation within the respective shipping companies in the industry, the results show that 10 (31.25%) respondent reported that their shipping company has been in operation for a period ranging between 5 to 10 years. Only seven respondents out of the 32 who successfully filled the questionnaire said that their shipping company has been in operation for less than five years. The general implication to this is that most shipping companies have been in operation for more than five year.

Table 4.2: Company Operation

Statement	Frequency	Percentage
Less than 5 year	7	21.88
5 to 10years	10	31.25
10 to 20years	7	21.88
Over 20 years	5	15.63
Total	**32**	**100**

Source: Research Data (2015)

4.2.3 Period Worked in Logistics/Operations within the Shipping Industry

From Table 4.3 which contains information on the respondents' period worked in public health facility, the results show that 8 (19.5%) respondent had worked for their respective logistics operations within the shipping company for a period of less than five year while the remaining 24 (58.5%) had worked for either five year or more for the respective logistics/ operations within the shipping company. This means that a majority of the respondents could be presumed to have the requisite professional experience that could enable them provide relevant and invaluable information on the concept of logistics/operations practices as is practiced by their respective shipping Companies.

Table 4.3: Period Worked in Logistics

Statement	Frequency	Percentage
Less than 5 year	8	25
5 to 10years	9	28.13
10 to 20years	8	25
Over 20 years	6	31.6
Total	**32**	**100**

Source: Research Data (2015)

4.2.4 Ownership of the Organization

From Table 4.4 contains information on the ownership of the organisation in the shipping industry, the results show that 24 (75%) respondent had reported that the ownership of the organisation was international were-as 8 which constitutes to 25% of the respondents said that their organization was locally owned.

Table 4.4: Ownership of the Organization

Statement	Frequency	Percentage
International	24	75
Local	8	25
Total	**32**	**100**

Source: Research Data (2015)

4.3 Logistic Outsourcing in the Shipping Industry in Kenya

The study sought to establish the effect of logistics outsourcing on the operational performance of shipping industry in Kenya. The respondents were requested to indicate the extent of adoption of various elements of lean operations practice within their facilities. The practices included; Warehouse Management, Inventory management, Facility location, Transport management, and Logistic ICT system. A 5-point Likert scale was used to rate the extent of adoption of the indicators whereby 1 point was accorded to 'no extent', 2 points to 'little extent', 3 points to 'moderate extent', 4 points to 'great extent' and 5 points to 'very great extent'.

Table 4.5 presents an analysis of the ranking of the logistics outsourcing operation practices as indicated by the respondents.

Table 4.5: Ranking of Logistics Outsourcing Practices

Statement	Mean	Std. Deviation	Rank
Transport Management	2.95	1.111	**4**
Warehouse Management	3.14	1.307	**1**
Logistics ICT Systems	2.81	1.25	**5**
Facility Location	2.98	1.000	**3**
Inventory Management	3.032	1.067	**2**
Grand total	**14.912**	**5.735**	

Source: Research Data (2015)

The results show that the respondents rated as highest the adoption of Warehouse Management (3.14) as a logistic operation practice practiced most by the shipping companies in Kenya. This was followed by Inventory management (3.032), Facility location (2.98), Transport management (2.95) and lastly Logistic ICT system (2.81).

4.4 Operational Performance

The study sought to establish the extent to which a number of components of operational performance had been experienced as a result of adopting the logistics outsourcing practices in the shipping industry in Kenya. The respondents were requested to indicate whether the performance presented to them in form of a questionnaire has been experienced in their respective shipping industry. The indicators included; Agility- faster response to changes, Efficiency in providing services, Elimination of inefficiencies, Information moves faster thus reduces lead time in the organization, Adaptability to accommodate changes that shippers need, Orders and deliveries are easily processed to avoid delays, Revenue has increased, Reduction in logistics costs, High level of inventory accuracy, Flexibility in handling contingency plans, Organization applies optimal transport system, Reduced cycle time, Increase in inventory turnover rate, Improved financial performance, Improved access to timely and accurate information, Accuracy of order processing, Monitoring of stock movement made easier, On time shipping has been achieved, Timely delivery of services to clients, Maximum security is accorded against information proliferation, Effectiveness in providing services and Logistics outsourcing has led to reduction in lead time. The response was analysed and presented in an ascending order from the lowest ranked operational performance to the highest ranked operational performance.

Table 4.6 presents an analysis of the ranking of the indicators of operational performance as hypothesized by the respondents.

Table 4.6: Operational Performance

Statement	Mean	S. Deviation
Agility- faster response to changes	4.03	0.695
Efficiency in providing services	4.13	0.751
Elimination of inefficiencies	4.13	0.66
Information moves faster thus reduces lead time in the organization	4.16	0.723
Adaptability to accommodate changes that shippers need	4.19	0.78
Orders and deliveries are easily processed to avoid delays	4.19	0.693
Revenue has increased	4.19	0.693
Reduction in logistics costs	4.22	0.792

High level of inventory accuracy	4.24	0.672
Flexibility in handling contingency plans	4.28	0.813
Organization applies optimal transport system	4.31	0.78
Reduced cycle time	4.31	0.896
Increase in inventory turnover rate	4.38	0.554
Improved financial performance	4.41	0.756
Improved access to timely and accurate information	4.41	0.615
Accuracy of order processing	4.44	0.716
Monitoring of stock movement made easier	4.47	0.507
On time shipping has been achieved	4.47	0.671
Timely delivery of services to clients	4.52	0.508
Maximum security is accorded against information proliferation	4.56	0.619
Effectiveness in providing services	4.59	0.615
Logistics outsourcing has led to reduction in lead time	5.48	7.375

Source: Research Data (2015)

4.5 Logistics Outsourcing and Operational Performance of Shipping Industry Kenya

To facilitate an inferential analysis of the relationship between logistics outsourcing and operational performance of shipping companies in Kenya, the respondents were requested to indicate the extent to which Logistics outsourcing practices had contributed to operational performance. The mean responses for logistics outsourcing practices and operational performance are summarized in table 4.6.

4.5.1 Logistics outsourcing Practices and Operational Performance

A regression analysis of the relationship between logistics outsourcing practices and operational performance done yielded the results as is shown in Table 4.6.

From Table 4.7, R (0.774) shows a strong positive relationship between logistic outsourcing practices and operational performance. R^2 shows that 59.9% of the variation in the operational performance is explained by the variation of the logistics outsourcing on: Transport Management, Warehouse Management, Logistics ICT systems, Facility Location and Inventory management.

Table 4.7: Regression Analysis of Variables

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig p-value				
		B	Std. Error	Beta			F	R	R^2	Psig from ANOVA
	B_0	1.486	.566		2.625	.019	4.475	.774	.599	0.011
	X_1	.977	.273	1.058	3.583	.003				
	X_2	-.009	.230	-.013	-.041	.968				
	X_3	-.058	.352	-.078	-.165	.871				
	X_4	-.027	.301	-.031	-.088	.931				
	X_5	-.280	.273	-.359	-1.027	.321				

Source: Research Data (2015)

The P values in the table represent ANOVA statistics used to present the regression model significance. Overall, the model is significant since the P value of 0.011 is less than the level of significance of 0.05.

From Table 4.7, the following regression model was established:

$$\textbf{Operational performance} = 1.486 + 0.977X_1 - 0.009X_2 - 0.058X_3 - 0.027X_4 - 0.280X_5$$

P-Value is 0.011

Where; X_1 Transport Management, X_2 Warehouse Management, X_3 logistics ICT systems, X_4 Facility Location and X_5 represents Inventory management. The model shows that Transport management (X_1) is positively related to operational performance. Warehouse Management X_2, logistics ICT systems X_3, Facility Location X_4, and Inventory management X_5 are negatively related to Operational performance as shown by their coefficient values.

From this model, it can also be inferred that the only component of logistic outsourcing practices that is significant is Transport management (X_1) with a p- value of 0.003 since this is less than the level of significance of 0.05. It would therefore not be appropriate to use this model to predict operational performance because all the individual parameters are not significant in explaining the performance. The overall regression model further indicate that transport management had the overall greatest positive effect on operational performance while level of where housing management had the most negative effect on performance of the shipping industries in Kenya.

4.6 Challenges faced in Outsourcing logistics in Shipping Industry

The study also sought to establish the challenges faced in outsourcing logistics in shipping industry in Kenya. The respondents were requested to indicate the extent of to which the various challenges were being experienced within their shipping company as a results of logistics outsourcing.

The challenge included Lack of appropriate technology, Failure to integrate logistics outsourcing in Shipping Firms, Lack of information about outsourcing logistics, Lack of appropriate business process needs in achieving logistics outsourcing practices, Lack of tools to optimize the use of LSP, Employees resistant to change, Government policies, Lack of top management commitment, Risk associated with Logistic outsourcing has increased, Loss of information privacy, Communication barrier between organization and LSP's, Quality of service by LSP not matched to the firms standards, Loss of control to LSP, Lack of a comprehensive strategy, Delays in service provision by LSP. The respondents were requested to either AGREE whether any indicated challenge affects logistic outsourcing or NOT TO AGREE. The results were analyzed and presented in table 4.9 the indicator showed that majority of the respondents reported that they have been experience the challenge in their organization as shown in the mean response that the AGREE from all the outlined challenges is greater than the mean of NOT AGREE.

Table 4.8 presents an analysis of the ranking of the challenges as hypothesized by the respondents.

Table 4.8: Challenges of Outsourcing Logistics

No.	Challenge	Agree	Not Agree
a.	Lack of appropriate technology	1.56	0.504
b.	Failure to integrate logistics outsourcing in Shipping Firms.	1.47	0.507
c.	Lack of information about outsourcing logistics	1.47	0.507
d.	Lack of appropriate business process needs in achieving logistics outsourcing practices	1.5	0.508
e.	Lack of tools to optimize the use of LSP	1.45	0.506
f.	Employees resistant to change	1.41	0.499
g.	Government policies	1.44	0.504
h.	Lack of top management commitment	1.53	0.507
i.	Risk associated with Logistic outsourcing has increased	1.72	0.457
j.	Loss of information privacy	1.44	0.504
k.	Communication barrier between organization and LSP's	1.53	0.507
l.	Quality of service by LSP not matched to the firms standards	1.44	0.504
m.	Loss of control to LSP	1.38	0.492
n.	Lack of a comprehensive strategy	1.53	0.507
o.	Delays in service provision by LSP	1.47	0.507

Source: Research Data (2015)

CHAPTER FIVE: SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter presents a summary discussion on the on the effect of logistics outsourcing on the operational performance of shipping industry in Kenya. A conclusion discussing the general findings of the research is highlighted followed by recommendation based on the findings of the study. The limitations of the study and suggestions on areas of further research are discussed at the end of the chapter.

5.2 Summary of the Findings

The study targeted 42 respondents from all the shipping industry in Kenya out of which 32 of them managed to successfully fill the questionnaire which represented a response rate of 75%.Regarding the respondents rate, the findings suggests that, shipping industry Male gender in logistics/operation are more than the female gender with respective percentage of 56.25 and 43.75 percent. On the other hand the response rate implies that gender issue is highly considered in shipping industries in Kenya especially in logistics/operations departments. On the length of time the Company has been in operation, the findings showed clear that different shipping Companies have been in operation for different duration of time. Again the findings indicates that despite this variation in the existence, majority of the shipping Companies have been in the industry for a period 5-10 years

Regarding the respondents' period or length of time the respondents have worked in a shipping company, the findings shows that majority of the respondents had worked with shipping Company for a period between 5-10 years which had a frequency of 8, followed by a tie of those who said they had worked with a shipping company for a period of bellow 5 years and between 10-20 years with a frequency of 8. The shipping industry seemed to have few old people from the duration respondents have worked in the shipping industry.

The respondents reported that to very small extend concerning to Logistics ICT Systems, the shipping companies in Kenya have had visibility between various departments in the organization. This means much need to be done in terms of technology. In terms of facility location, the respondents commented, shipping Companies in Kenya maintains a moderate good Relation with transporters. This again gives an implication that something needs to be done to improve this

relationship. In terms of performance, majority of the respondents feel that logistic outsourcing improves performance. Very few felt that logistics outsourcing/operations improve performance.

The most used logistics outsourcing practices in the shipping industry are in order of warehouse management 3.14, Inventory management 3.032, facility location 2.98, transport management 2.95 and lastly logistics ICT systems 2.81 which are all related to the operational performance of the firms and in such transport management is positively related to performance while the rest negatively related to the performance. The attributed negative results is due to the challenges the firms face in the industry hence mitigating measures should be put in place to ensure that they are managed.

5.3 Conclusions of the Study

The study concluded that indeed public shipping Companies in Kenya were practicing logistics outsourcing in the processes of service delivery which had an effect on operational performance. There had been improved operational performance through improve financial performance, elimination of inefficiency; improve access to timely and accurate information among others. This had generally led to reduced waste, improved efficiency and reduced lead times between processes.

The shipping industry have been in operation for more than ten years in the country and most of them are international entities, in the view of shipping practices adopted are in rank, warehouse management which is highly adopted with a mean of 3.14 followed by Inventory management 3.032, facility location 2.98, transport management 2.95 and lastly Logistics ICT systems 2.81 this clearly shows that warehousing is a key aspect in the firms as goods have to be stored in the warehouses and management of the logistics clearly relies on how goods are handled in the warehouses.

The study also concluded that in the course of adopting logistic outsourcing in the shipping industry operations, a number of challenges had been experienced. The challenges faced included; Lack of appropriate technology, Failure to integrate logistics outsourcing in Shipping Firms, Lack of information about outsourcing logistics, Lack of appropriate business process needs in achieving logistics outsourcing practices, Lack of tools to optimize the use of LSP, Employees resistant to change, Government policies, Lack of top management commitment, Risk associated with Logistic outsourcing has increased, Loss of information privacy,

Communication barrier between organization and LSP's, Quality of service by LSP not matched to the firms standards, Loss of control to LSP, Lack of a comprehensive strategy, Delays in service provision by LSP. Where majority agreed that the increase in risk associated with Logistic outsourcing is the biggest challenge. The findings also found out that; Lack of appropriate technology, lack of appropriate business process needs in achieving logistics outsourcing practices, Lack of top management commitment, Communication barrier between organization and LSP's, Lack of a comprehensive strategy had a relatively large challenge after delays in service provision by LSP, with a mean of 5 and above.

5.4 Limitations of the Study

The concept of outsourcing and its effect is really wide. The study did not cover all the practices considered to constitute outsourcing, activities that a firm can outsource, benefits of outsourcing among others. Interesting findings would have been revealed if we could have had all the practices been considered here. Furthermore, the study was limited to the shipping industry in Kenya. The study was largely constrained by the short time available. The interviewees also had tight schedules and could only manage limited time to provide the required data.

In addition there were a lot of interferences during the data collection period due to the nature of their work. The concept of outsourcing logistic operation was also not well understood and this posed challenges in getting feedback and gathering information on its implementation. The dynamic nature of the service delivery management may change after a period of time and the views provided are limited to a given time period. These findings may not be applicable across time.

5.5 Recommendations

Based on the findings of the study it is recommended that all shipping Companies in Kenya adopt full implementation of logistics outsourcing to experience improved operational performance. The management of shipping industry in Kenya will have to set up clear policies on logistic outsourcing implementation and communicate to all shipping companies on what it entails, what is expected, the potential benefits and challenges. The aim of this will be to embrace acceptance of logistics outsourcing as best practice aimed at ensuring improved service delivery.

Implementation of logistics outsourcing in operations of the shipping industry is highly recommended. This is because of the benefits that can be realized if fully

implemented. Shipping Companies shall benefit out of implementation of logistics outsourcing and management practices by improving service delivered to customers, reducing delays, improve efficiency of services, ensure concentration on core activities of the company, and much more benefits which are accrued by implementing logistics outsourcing. All these aspects are prerequisites in ensuring a happy customer. The shipping companies in Kenya in adopting these practices ought to do it in a holistic manner rather than in an isolated way to enjoy the great benefits of full implementation. They should build a culture of logistic outsourcing within cross functional teams in among the service providers and transport companies. In view of this the firm should ensure that all logistics practices are adopted effectively as one cannot work without the other and the challenges are fully mitigated to ensure full logistics outsourcing is operational in the shipping industry.

5.6 Suggestions for Further Research

There is little research done in the area of logistics outsourcing in Kenya. It is therefore recommended that more research be done not only in the Kenya service sectors but also in manufacturing setting and compare the results from both. This could also be extended to other areas within the wider service sector in Kenya. Like hotel industry, education sector and many other to find out if the findings will be in line with this study.

There is need to conduct the same study in five years' time within the same setting to verify if the results would have change then, since the operations and ways of working in the general service industry changes every day due to consumer demand and awareness. Again the study lumped together all the lean operations performance as a measure of logistic outsourcing a separate study need to be conducted to evaluate logistic outsourcing against one element of operational performance so as to know which of operational performance becomes influenced the most and by what margin.

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APPENDICES

Appendix I: Research Questionnaires

Section A: General Information

1. Gender:

Male ( ) Female ( )

2. How long has your company been in operation?

a) Below 5 years ( )

b) 5-10 years ( )

c) 10-20 years ( )

d) Over 20 years ( )

3. How long have you worked in Logistics/operations within the shipping industry?

a) Below 5 years ( )

b) 5-10 years ( )

c) 10-20 years ( )

d) Over 20 years ( )

4. Is your Organization Locally owned or International Ownership?

Local ( ) International ( )

Section B: Logistic outsourcing in the shipping Industry in Kenya

5. Please indicate the extent to which you agree with the following statements on the extent to which your organization has been practicing the following logistics practice. Scale of: 1- Not at all, 2- Small Extent, 3- Moderate extent, 4- Large extent, 5- Very large extent.

	Transport Management	1	2	3	4	5
1	Vehicle scheduling has improved					
2	Route optimization has been achieved					
3	Fleet tracking tools have increased vehicle visibility					
	Warehouse Management	1	2	3	4	5
1	Good housekeeping practices have been achieved by the org					
2	Proper receipt procedures have been undertaken by staff					

3	Less damages to commodities due to proper storage					
4	Staff welfare has been achieved due to implementation of health and safety standards					
	Logistics ICT Systems	1	2	3	4	5
1	Visibility between various departments in the organization improved					
2	Paperless operation in the organization enhanced e.g. EDI					
3	Availability and proper flow of information in the organization improved					
4	My organization utilizes information technology in coordinating its activities with suppliers e.g. E-commerce					
	Facility Location	1	2	3	4	5
1	Client Accessibility to service location been enhanced					
2	Good relations with transporters is maintained by the organization					
3	Effective service delivery is maintained with the supplier of services and provider					
4	Productivity has been improved					
	Inventory Management	1	2	3	4	5
1	Proper flow of inventory enhanced					
2	Efficiency due to use of modern inventory handling equipment					
3	Good inventory turns has been achieved					
4	Proper records and accuracy in inventory has improved					
5	Quality check on the inventory has improved e.g. use of inspection, electrical testing					

6. Any other? Please indicate

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……

Section C: Operational Performance

7. Please tick if you agree or not agree if your organization achieved on operational performance in relation to the logistics outsourcing.

No.	Operational Performance	Agree	Not Agree
a.	Monitoring of stock movement made easier		
b.	Organization applies optimal transport system		
c.	Increase in inventory turnover rate		
d.	On time shipping has been achieved		
e.	High level of inventory accuracy		
f.	Accuracy of order processing		
g.	Agility- faster response to changes		
e.	Flexibility in handling contingency plans		
f.	Efficiency in providing services		
g.	Effectiveness in providing services		
h.	Reduction in logistics costs		
i.	Reduced cycle time		
j.	Adaptability to accommodate changes that shippers need		
k.	Improved financial performance		
l.	Elimination of inefficiencies		
m.	Improved access to timely and accurate information		
n.	Information moves faster thus reduces lead time in the organization		
o.	Maximum security is accorded against information proliferation		
p.	Logistics outsourcing has led to reduction in lead time		
q.	Timely delivery of services to clients		
r.	Orders and deliveries are easily processed to avoid delays		
s.	Revenue has increased		

8. Any other crucial issues? Please indicate

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Section D: Challenges faced in Outsourcing logistics in shipping industry

9. Please ticks if you agree or not agree with the following challenges are experienced in your organization in outsourcing logistics.

No.	Statement	Agree	Not Agree
a.	Lack of appropriate technology		
b.	Failure to integrate logistics outsourcing in Shipping Firms		
c.	Lack of information about outsourcing logistics		
d.	Lack of appropriate business process needs in achieving logistics outsourcing practices		
e.	Lack of tools to optimize the use of LSP		
f.	Employees resistant to change		
g.	Government policies		
h.	Lack of top management commitment		
i.	Risk associated with Logistic outsourcing has increased		
j.	Loss of information privacy		
k.	Communication barrier between organization and LSP's		
l.	Quality of service by LSP not matched to the firms standards		
m.	Loss of control to LSP		
n.	Lack of a comprehensive strategy		
o.	Delays in service provision by LSP		

10. Any other challenge? Please indicate

……

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Thank you for your time and co-operation

Appendix II: List of Shipping Firms in Kenya

Name	Physical Address
1. Access Shipping Agency Ltd	KenyaShipchandlers building
2. African Shipping Ltd	Cannon towers 11,9th flr.moi ave
3. Cargo World Aviation Ltd	Inchcape hse, 3rd floor, moi avenue
4. CMA-CGM Kenya Ltd	Moi ave-baywood building 1st flr
5. Diamond Shipping Services Ltd	Moi ave-sharaf house
6. Diverse Shipping Ltd	Canon towers 4th flr, Moi ave
7. Eagol Travel Kenya Ltd	Nkurumah rd ambalal house, ground flr
8. East African Commercial & Shipping Co.	Changamwe off, Mombasa-nairobi highway,
9. Emirates Shipping (E.A) Ltd	Inchcape hse,3rd flr, archbishop makarios
10. Express Shipping & Logistics (Ea) Ltd	Moi avenue,cannon tower ii,7th flr
11. Green Island Shipping Services Ltd	Mama Ngina drive
12. Gulf Badr Group (Kenya) Ltd	TSS building, nkuruma rd,6th flr
13. I.Messina (K) Ltd	Tarchand plaza, 3rd floor
14. Inchcape Shipping Services K Ltd	Archbishop makarios rd-inchcape hse
15. Kenya National Shipping Line Ltd	Moi ave-canon towers ii
16. Kusi Shipping Services Ltd	Tarchand plaza, 3rd floor
17. Logistics Expeditors Ltd	Nkurumah rd tss tower 5th flr
18. Maersk Kenya Ltd	Moi ave-sharaf hse,archbishop makarios close
19. Magellan Logistics Kenya Ltd	Southern house,moi ave,4th flr
20. Mediterranean Shipping Co (Msc)	Moi ave-msc plaza
21. Mitchel Cotts Kenya Ltd	Shimanzi, voi street

22. Nippon Yusen Kaisha (Nyk)	Kepevu rd-changamwe
23. Oceanfreight E.A Ltd	Moi ave-msc plaza
24. PIL (Kenya) Ltd	Archbishop makarios rd-inchcape hse,2nd flr
25. Rais Shipping Services (K) Ltd	Inchcape hse, Mikanjuni road, off Moi ave
26. Rig Logistics Ltd	Taz building, Shimanzi road Mombasa
27. Seabulk Shipping Services Ltd	Mkomani, opposite Nyali cinemax,
28. Seaforth Shipping (K) Ltd	2nd floor Cotts House Moi Avenue
29. Seatrade Agencies Ltd	1st floor Cotts House Moi Avenue
30. Seven Seas Shipping Agencies (K) Ltd	Nyerere ave, Maganjo house, office, 2nd flr
31. Sharaf Shipping Agency (K) Ltd	Moi ave- sharaf hse,archbishop
32. Shipmarc Ltd	Comarco base, Liwatoni bay, Mikanjuni road
33. Socopao (Kenya) Ltd	Kipevu road, Changamwe, Mombasa.
34. Sosco Fishing Industries Ltd	Taib Nassir road-liwatoni fisheries complex
35. Southern Engineering Co Ltd	Mbaraki wharf near likoni ferry
36. Spanfreight Shipping Ltd	Creek marina house,nyali rd
37. Spears Shipping Agency (K) Ltd	Moi avenue,msc plaza 1st flr
38. Sturrock Shipping (K) Ltd	Moi ave- harbour hse, 2nd flr
39. Tehema Shipping & Marine Services Co.	Olemonana hse,2nd flr, Moi Ave, Mombasa
40. Wec Lines (K) Ltd	Moi ave-MSC plaza
41. Wilhelmsen Ships Service Ltd	Imaara Bldg, Dedan Kimathi Ave, Kenya
42. Zamzam Shipping Agency Ltd	Bondeni mackawi road

Source: Kenya Ships Agents Association, 2015.

Appendix III: Timeline/Schedule of Research Activities

Item	Time			
	July	**Aug**	**Sep**	**Oct**
Proposal development				
Data collection				
Data analysis				
Report compilation				

Appendix IV: Project Budget

ITEM DESCRIPTION	**UNIT COST(Kshs)**	**TOTAL (Kshs)**
Instrument Pre-test	2 days @8,000	8,000
Primary data collection	10 days@ 1000/ 5 people	50,000
Data Analysis	5 days@3000	15,000
Report writing & presentation	7days@ 3000	21,000
Transport	24 days	20,000
Total		**114,000**