CRITICAL SUCCESS FACTORS AND ORGANIZATIONAL PERFORMANCE OF INDIGENOUS THIRD PARTY LOGISTIC BUSINESSES IN TRANSPORT SECTOR IN KENYA

Mwanzia, Mary

Jomo Kenyatta University of Agriculture and Technology (JKUAT), Nairobi Kenya

Dr. Oloko

Jomo Kenyatta University of Agriculture and Technology (JKUAT), Nairobi Kenya

Dr. Eng. Senaji

Jomo Kenyatta University of Agriculture and Technology (JKUAT), Nairobi Kenya

Dr. Orwa

Jomo Kenyatta University of Agriculture and Technology (JKUAT), Nairobi Kenya

ABSTRACT

The main objective of this study was to investigate critical success factors and organization performance of indigenous third party logistic businesses in the transport sector in Kenya. The third party logistics industry has been constantly changing due to global industry consolidation, technology integration, industry specialization, and industry alliance networks. Literature presents five different critical success factors for creating organizational performance. These are operation cost, innovation, resilience, quality service and relationship management. This paper was to analyze from the retailers' perspective, how factors of third party logistics providers could meet the customers' needs better and create organization Performance in the third party logistics market. The empirical data was collected through Questionnaires and interview schedules. In total 181 Logistic firms were to take part in the survey, Census enquiry was used to get the sample where operations managers in the indigenous third party logistic companies were respondents who were interviewed. The collected data was analyzed using descriptive research design an exploratory factor analysis, multi- collinerity test, inferential statistical analyses and linear regression tests was carried out for each variable in the study. Data analysis was done using SPSS to generate quantitative reports through tabulations, percentages, and measures of central tendency. Validity and reliability was tested using a pilot study.

1.1 Background of the study

Evangelista and Sweeney (2006, p. 56) give the following definition: "Third party logistics are activities carried out by a logistic service provider on behalf of a shipper and consisting of at least transportation." In addition, the service offering can include other activities such as transportation, warehousing, freight forwarding and value adding services like packaging and labeling. Depending on the changes in regulatory and political environment, nature of the firm and type of industry, such decisions are made on occasional or routine basis.". Berglund et al. (1999, p.59) define 3PL as "activities carried out by a logistics service provider on behalf of a shipper and consisting of at least the management and execution of transportation and warehousing activities." Berglund et al. (1999) mention that 3PL contract should also contain some management, analytical or design activities.

For this paper we define 3pl as a provider of outsourced logistics service like transportation or warehousing or could include integration of supply chain. 3pl have the potential to offer more than a single service .For the last two decades, outsourcing of logistics services has been one of the most popular logistic decisions (Knemeyer & Murphy, 2005). Firms embark on this relatively new strategy by using Third Party Logistics (3PLs) and/or Fourth Party Logistics (4PLs) as their source of logistics services instead of sourcing them internally. Abdullah, Mohamed, Othman, & Uli, (2009) argue that at the moment firms tend to outsource their manufacturing activities than how they did a decade ago. The decisions involved in assessing whether to outsource or not are in line with the popular make-or-buy decisions. Globalization forces coupled with institutional and structural reforms that are embryonic in Africa pledge for a fast-tracked economic upsurge and opportunities in the continent. With its aggressive pursuing of economic and political integration, East Africa is one of the regions with such enormous development potential. Like other regions in Africa, it is rich in minerals and other natural resources. This makes it not only a critical source of raw materials for different industries but also a common market for local and global companies. As business networks grow and complexities in operations increases it is absolutely important to understand challenges of doing business in the region. For firms aspiring to enter this market, it is imperative to get hold of this understanding and up to date knowledge on how to achieve relevant and finest logistic capabilities in the region.

Even though 3PLs organizational performance is a relatively new practice, significant literatures on the topic are available, Europe (Wilding &Juriado 2004), North America (Lieb & Lieb 2009, Lieb 2008, Lieb & Butner, 2007) and Asia Pacific region (Abdullah et al. 2009, Power et

al. 2007 & Chen et al. 2010). This was suggestive of the extent this topic will be explored both, quantitatively and qualitatively. The purpose of this paper was to analyze from the retailers' perspective, how critical success factors of 3PL providers could meet the customers' needs better and create organizational Performance in the 3PL market. Furthermore, the purpose of the research is to find out which are the main critical success factors, according to the customers' needs, the best directions that 3PL providers should follow for their organization performance.

1.1.1   Stages of 3PL evolution, Global and Kenyan Transport and SCM Development

The development of the 3PL industry can be divided into three main stages. The first one was in the early 1980's when only traditional logistics service providers existed such as transportation companies, warehouses, forwarders, shippers and agents. The second stage was in the early 1990's when network players, mainly parcel and express companies got involved in the industry. These were companies such as DHL, UPS and TNT. The third and the last stage of evolution started in the late 1990's, when companies from different sectors such as consulting, finance and IT companies entered the 3PL industry (Berglund, Laarhoven, Sharman & Wandel, 1999).

As international business broadens its scope and horizons, logistics and SCM become increasingly more complex and challenging. The shift towards worldwide manufacturing and assembling operations has led to a greater role for logistics and SCM to provide dedicated services for customers and supply chain partners. Bowersox and Calantone found in 1998 that worldwide logistics firms had expended more than US$3.4 trillion to achieve product and material positioning.

 In 2001, 3PL business had an annual worldwide value of around US$320billion. The industry has grown at an annual rate of 3-10% (KTA, 2002). The global SCM market was estimated to grow to US$173.7 billion during 2005, which represents a compound growth rate of 10%. SCM integrates the individual activities within the supply chain to offer customers a complete "end-to-end" service. Worldwide trends indicate an increasing preference by companies to opt for integrative SCM outsourcing models, which encompass the co-ordination of three flows – physical, information, and cash. The demand for SCM services is likely to grow against the backdrop of greater outsourcing, globalization, the advent of new products, and shorter product life cycles (Ellram and Cooper, 1990). There would be further global expansion of 3pl and SCM activities in the future. Regionally, the African SCM market is poised for robust growth. Annual SCM growth rates are 7% in Europe, 10% in North America, and 15% in Africa. The high growth rate in Africa is confirmed by a JP Morgan research survey that shows that African shippers have outsourced only about 2.5% of their logistics functions compared to the figures of 20% and 25% of their US and European counterparts (Singapore Service Sub-committee, 2002). It also shows that African companies have indicated a strong interest in the revamping and integration of their 3pl with worldwide operations.

It is common knowledge that Kenya has become the busiest container port in the world. The Kenyan Shipper's Council reported in 2003 that 75% of its home-made cargo was re-exported through Kenya. This has transformed Kenya into a transshipment logistics hub. According to the Trade and Development Council, (2002), the transport industry in Kenya comprises air transportation, sea transportation, traditional freight forwarding, and 3PL. The transport industry is the backbone of the Kenyan economy, due largely to Kenya's excellent harbor, its strategic

location, and its export trade. Kenya is also a major aviation and maritime hub, and has been ranked the busiest in Africa for many years. Kenya has a leading international airport with an annual cargo handling capacity of up to 9 million tons. In 2003, Kenya handled 20.4 million twenty-foot equivalent units in marine cargo terminals and another 2.64 million tons of air cargo in air cargo terminals. In 2003 the International Airports' Council ranked Kenya number two in the handling of international cargo. In the past decade, logistics and transport have become two of the most important sectors of Kenya's economy. This study concentrated on international third party logistics though it is known that indigenous third party logistics also contributes to the economy growth. In 2000, the air and sea transport logistics sectors together constituted about 18% of Kenya's GDP (TDC, 2002).

The relaxation of freight forwarding and transportation policies in Africa following accession to the WTO has created fierce competition within the East African Region To maintain Kenya as a regional logistics centre and transport hub, the effective management of supply chain dynamics is paramount. Kenya's minister of Transport announced in 2001 the Logistics Council's plan to implement a series of policies and recommendations from academics, industry experts, and professionals to maintain organizational performance and strengthen Kenya's transshipment and logistics hub status in the African-Pacific region.

In the policy address for 2003 and 2004, Kenya's minister of Transport further spelled out the goal of establishing Kenya as a trading and multi-model trade management and operations center. The government aims to strengthen Kenya's position as Africa's premier transportation and logistics hub by facilitating the development of the logistics center and express cargo

terminal of Kenya International Airport, and by building a logistics park on Mombasa Island. The government will also upgrade the existing infrastructure to ensure a smooth flow of cargo between Kenya and mainland Africa.

Kenya is in a unique position to serve as a logistics hub for the distribution of parts and materials between manufacturers in Mombasa and overseas suppliers. The purpose of this paper is to analyze from the retailers' perspective, how factors of 3PL providers could meet the customers' needs, the best directions that they should follow and create organizational Performance in the 3PL market.

In recent years, the academic interest and publications in the area of 3PL have increased. This can be explained by the growing interest of companies to outsource more and more of their non-core activities (Selviaridis& Spring, 2007). Various facets of a 3PL topic have been covered in the previous studies; these include 3PL outsourcing process (Mello et al. 2008 and Jharkhariaa & Shankarb, 2007), drivers of outsourcing decision (Rao & Young, 1994), satisfaction and perception of customers on performance of their 3PL service providers (Power et al. 2007), customer-provider collaborative relationships (Hofer et al. 2009), types of outsourced logistic activities, evolution of 3PL and 4PL industry, and impact of using 3PL on firm performances. However, only few or no literature is available on organizational performance in indigenous third party logistic businesses in the transport industry.

Although the 3PL industry is a growing industry, many companies have been going out of business. According to Lieb (2005), this can be explained by the normal industrial evolution. However, there are several criteria regarding the selection of a 3PL provider. While various

logistics designs present opportunities to reduce operation cost and increase customer services to all players in the industry, firm specific strategies that is operation cost, innovation, resilience, are the ones that uniquely contribute to distinctive performance. In 3PL organizational performance, the strategies are in terms of scope translated as depth and width of performance activities, number of service providers, and length of outsourcing relationships.

1.2 Statement of the Problem

For the last two decades, outsourcing of logistics services has been one of the most popular logistic decisions (Knemeyer & Murphy, 2005). Firms embark on this relatively new strategy by using Third Party Logistics (3PLs) and/or Fourth Party Logistics (4PLs) as their source of logistics services instead of sourcing them internally. Abdullah, Mohamed, Othman, & Uli,(2009) argue that at the moment firms tend to outsource their manufacturing activities than how they did a decade ago.

Armstrong & Associates (2012) estimate that the global Third Party Logistics gross revenue at $133.8 billion in 2011 was up 5.2 percent over 2010, Annual growth for the third-party logistics (3PL) market in 2013 is expected to be high of 6 percent, with much of current market activity centered around mergers and acquisitions, with many of the same underlying market fundamentals of 2012 still embraced.

A Resource Dependence Perspective (Pfeffer and Salancik, 1978) (RDP) theory has implications regarding the optimal divisional structure of organizations, recruitment of board members and employees, production strategies, contract structure, external organizational links among many others organization should move through the principle of criticality and principle of scarcity.

Transaction cost economics Theory developed by Oliver Williamson (1975, 1985. 1993b) (TCE). This theory was dangerous for corporate managers because of the assumptions and logic on which it was grounded. Organizations are not mere substitutes for structuring efficient transactions when markets fail; they possess unique advantages for governing certain kinds of economic activities through a logic that is very different from that of a market. Behavioral theories will be introduced in an attempt to overcome some of the limitations associated with the economic theories. Failure of indigenous third party logistics in Kenya will mean loss of employment to locals and sustainability of the industry could also be threatened as well as attainment of Kenya's Vision 2030. Various facets of a 3PL topic have been covered in the previous studies; these include 3PL outsourcing process (Mello et al. 2008 and Jharkhariaa & Shankarb, 2007), drivers of outsourcing decision (Rao & Young, 1994), satisfaction and perception of customers on performance of their 3PL service providers (Power et al. 2007), customer-provider collaborative relationships (Hofer et al. 2009), types of outsourced logistic activities, evolution of 3PL and 4PL industry, and impact of using 3PL on firm performances.

The limited number of available literature reveals that there is a meager research to probe organizational performance of indigenous 3PL firms in Kenya (ElTayeb, Zailani and Jayaraman, 2010). At present, bulk of the 3PL services in Kenya are offered by Multinational firms as opposed to indigenous firms in the transport sector. 3PL is still a new concept in Kenya which has not been fully embraced by the indigenous 3PL firms and this lead to purpose of this study which will be to investigate the critical success factors on organizational performance of indigenous third party logistic businesses in the transport sector in Kenya.

1.3 Study objectives

1.3.1 General Objective

To Determine Critical success factors and organizational performance of indigenous third party logistic businesses in the transport sector in Kenya.

1.3.2 Specific objectives

  i.   To establish operation Cost and organizational Performance of Indigenous Third Party Logistic Businesses in the Transport Sector in Kenya.

1.4 Research Hypothesis

H_{01}: Operation Cost of Indigenous Third Party Logistic Businesses does not influence organizational Performance in the Transport Sector in Kenya.

DEFINITION OF TERMS

Operation Cost

This is reducing cost and ultimately the price.

4PL (Fouth party logistics)

Walton (2010) described a 4PL as a company that manages logistics operations with the use of subcontractors and without running its own trucks on the contract.

 Innovation

In logistics management literature, innovation is defined as any logistics-related service that is seen as new and helpful to a particular focal audience (Flint et al., 2005). It is to provide critical customers with products and services that not only are new but also fulfill needs that competitors have neglected or not served well. Furthermore, objective include providing new ways of producing, delivering and distributing products)

Logistics management

This is seen as that part of Supply Chain Management that plans, implements, and controls the efficient, effective forward and reverse flow and storage of goods, services and related information between the point of origin and the point of consumption in order to meet customers' requirements."

Organizational Performance

Töyli*et al.* (2008) concluded that a high logistics performance is associated with efficient operations, involving overall cost efficiency and high productivity of fixed assets.

In this study performance is defined as the accomplishment of a given task measured against preset known standards of accuracy, completeness, cost, and speed. In a contract, performance is deemed to be fulfillment of an obligation, in a manner that releases the performer from all liabilities under the contract. Bouckaert&Halligan(2008) argue that performance is neither a unitary concept nor is it unambiguous. They say that performance comprises of the relations between input, activity, effort and trust.

Performance refers to the nature and quality of an action that an organization carries out to accomplish its principal missions and functions for the generation of profit (Sink, 1991).

3PL (Third Party Logistics)

During these periods there have been several definitions regarding the term "3PL", and some of them are mentioned below. According to Lieb (1992, p.34), "3PL involves the use of external companies to perform logistics functions that have traditionally been performed within the organization. The functions performed by the third party can en-compass the entire logistics process or selected activities within that process". Evangelista and Sweeney (2006, p. 56) give

the following definition: "Third party logistics are activities carried out by a logistic service provider on behalf of a shipper and consisting of at least transportation." In addition, the service offering can include other activities such warehousing and inventory management, value added supply chain activities and information-related activities.

Relationship Management

Relationship management is an external factor that affects the organizational performance of logistics outsourcing.

Resilience This is to recover quickly and cost-effectively from disruptions caused by natural disasters, social factors (employee strikes), medical emergencies, economic setbacks or technological failures (a software crisis)

Supply chain management (SCM)

Quinn(1998) defines SCM as the activities that are associated with moving goods from rawmaterials and parts, manufacturing and assembly, warehousing and inventory tracking, order entry and order management, distribution across all channels, and delivery to customers.

Christopher (1992) defines a supply chain as a network of organizations that are involved through upstream (supply) and downstream (distribution) links in the different processes and activities that produce value in the form of ultimate consumer products and services. Supply chain consists of multiple firms or partners.

 Service quality

This follows the definition of Zeithaml (1988) that 'service quality is a consumers appraisal of a services overall excellence or superiority.

2.2.1 Transaction Cost Theory

Transactions can be Internal or External to an Organization. Transaction Cost Economics focuses on the organization of transactions that occur whenever a good or service is transferred from a provider to a user across a technologically separable interface. When transactions occur within an organization, the transaction costs can include managing and monitoring personnel and procuring inputs and capital equipment. The transaction costs of buying the same good or service from an external provider can include the costs of source selection, contract management, performance measurement, and dispute resolution.

Thus, the organization of operation cost, innovation and service quality or "governance structure," affects transaction costs. Transaction Cost Economics asserts that the transaction is the basic unit of economic activity, where a transaction "may be said to occur when a good or service is traded across a technologically separable interface" (Williamson 1993). A transaction cost is a cost incurred in making an economic exchange. Transaction costs are those over and beyond the price of the product or service procured. They broadly break down into motivation and coordination costs (Milgrom and Roberts 1992). Opportunism (Williamson 1985) and agency costs (Jensen and Meckling 1976) are components of motivation costs. Coordination costs include search (Stigler 1961), input coordination (Armen and Demsetz 1972), and measurement costs (Barzel 1982). In reality, these costs can be extended across multiple economic exchanges.

Williamson defined a governance structure as an "institutional framework in which the integrity of a transaction or related set of transactions is decided" (Williamson, 1996, p. 11). Governance thus consists of formal and informal structures and rules that enable carrying out economic transactions in an economic manner (Wieland, 2005). TCE maintains that hierarchies and markets are alternative governance structures to organizing economic activity (Arrow 1974) and that firms need to align governance structure and transaction characteristics (Williamson, 1985 Silverman, Nickerson, and Freeman, 1997). The basic argument of TCE is that decision makers chose whichever governance structure minimizes the total cost associated with a transaction (Coase, 1937) (see Figure 2.1).

Figure 2.1 Transaction cost economics model

Transaction characteristics ⟶ Governance structure ⟶ Transaction costs.

Although TCE mainly focuses on transaction costs, the basic criterion for organizing transactions is to economize on the sum of both production expenses and transaction costs (Williamson, 1981). If the total operation cost of using a market is too high, other governance structures, such as hierarchical production in a firm, are more appropriate. TCE argues that transactions have distinct characteristics that, in combination with the attributes of alternate governance structures, produce different production and transaction costs. Characteristics of Transactions can affect Transaction Costs Some goods and services can be produced more efficiently if one of the parties invests in "transaction-specific". The three key transaction characteristics are (1) asset specificity, (2) uncertainty, and (3) frequency of transactions (Williamson 1981). Asset

specificity refers to the degree to which the investments necessary for a transaction are specific to that particular transaction (Williamson, 1981).

Assets that cannot easily be put to other uses if the buyer/seller relationship breaks down including cost, nnovation and service quality. Asset specificity can take a variety of forms, including: Site or location specificity—a buyer or seller locates its facilities next to the other to economize on inventories or transportation costs; Physical asset specificity—investments are made in specialized equipment or tooling designed for a particular customer; Human capital specificity—one or both of the parties develop skills or knowledge specific to the buyer-seller relationship; Dedicated capacity—capacity is created to serve a customer who is large relative to market size, so that it would be difficult to find alternative customers; and Brand name capital— the parties must maintain the reputation of a shared brand name; for example, in franchise relationships the reputation of the franchise depends on the behavior of the individual franchisees. If the transaction fails, the investments would be less valuable in some second best use (Williamson, 1986).

Such a situation can lead to dependencies between buyers and suppliers, since, for example, buyers cannot easily turn to an alternative supplier, and are thus "locked into" the transaction for a considerable time after (Williamson, 1981). The transaction partner who invests in specialized assets is vulnerable to opportunism and will consequently make special efforts to protect investments by implementing, monitoring, and enforcing contractual safeguards (Rindfleisch et al. 1997). One solution to the safeguarding problem is to integrate vertically, i.e., to produce the good or service in a hierarchy rather than buying it on a market (Klein, Crawford et al. 1978).

Hence, with higher levels of asset specificity, a firm will prefer to internally organize production instead of market governance.

Uncertainty can come from different sources, most notably environmental variability and behavioral uncertainty (Rindfleisch and Heide, 1997). Environmental uncertainty, such as technological uncertainty, deals with the difficulty to foresee and anticipate changes in the relevant environment (Rindfleisch and Heide, 1997). When faced with high environmental uncertainty, writing complete contracts is difficult, and as unforeseen events emerge, contractual gaps might appear and require renegotiating and adaptation (Williamson, 1979).

Contract adaptation and re-negotiation are a costly process and will increase transaction costs. As to behavioral uncertainty, it is based on the threat of opportunism and refers to the difficulty of monitoring and evaluating the behavior and performance of the transaction partner. Whereas environmental uncertainty makes it impossible to specify contracts exante, behavioral uncertainty refers to the difficulty to verify the performance of the transaction partner expost (Geyskens, Steenkamp et al. 2006). Governance structures have a varying ability to cope with certain kinds of uncertainty. It is assumed that with higher levels of uncertainty, firms tend to produce products and services internally.

Transaction Cost Economics asserts that the frequency of transactions influences both transaction and production costs. So far, this transaction characteristic has received little attention in academic research (Rindfleisch and Heide, 1997; Geyskens, Steenkamp et al. 2006), and it should be of interest to information systems researchers because of the emergence of high transaction volume electronic partnerships (Chatterjee, Segars, and Watson, 2006). In general,

firms have an incentive to internalize production with increasing transaction frequency (Williamson, 1987).

Though other viewpoints implicitly argue that in the age of the Internet there are competitive advantages in externalizing many high volume transactions that can be executed electronically (Watson, Zinkhan, and Pitt 2004; Chatterjee, Segars, and Watson 2006; Glassberg and Merhout, 2007) Transaction cost economics Theory (TCE), and more specifically the version of TCE that has been developed by Oliver Williamson, (1975, 1985. 1993b). has become an increasingly important anchor for the analysis of a wide range of strategic and organizational issues of considerable importance to firms. This theory is likely to be not only wrong but also dangerous for corporate managers because of the assumptions and logic on which it is grounded. Organizations are not mere substitutes for structuring efficient transactions when markets fail; they possess unique advantages for governing certain kinds of economic activities through a logic that is very different from that of a market. TCE is "bad for practice" because it fails to recognize this difference. Survival of the fittest, and, hence, the need to be the fittest, is seen as the moral of the tale.

Each Governance Structure Has Strengths and Weaknesses For many types of transactions, markets are the preferred governance structure because they provide "high-powered incentives." That is, the supplier reaps the full benefits or bears the full costs of its own activities, and thus has a strong incentive to maximize value net of production costs, and to respond quickly to changes in the market prices of inputs or outputs. However, Transaction Cost Economics argues that markets have difficulty dealing with some transactions because of asset specificity, bounded

rationality, and opportunistic behavior by the parties to the transaction. Since buyers and sellers can easily walk away from pure, spot-market transactions, they offer no protection against opportunism when transaction-specific assets are involved.

Contracts offer some protection for transaction-specific assets by tying the buyer and seller together for a specified period. However, bounded rationality precludes comprehensive ex ante contracting that specifies how the parties will behave in all possible circumstances. If contracts are inherently incomplete, parties may perceive potential gains from opportunistic behavior. As a result, attention must be focused on more complex (or internalized) governance mechanisms to fill gaps in the contract, settle disputes, and adapt to new conditions for high performance.

Contracting parties may also make ex ante efforts to screen counterparties in terms of reliability or reputation, and/or design ex post safeguards to protect transaction-specific investments. When asset specificity, bounded rationality, and opportunism make contracting problems severe, vertical integration may be needed to ensure that the value of transaction-specific assets is internalized. It can also allow for flexible redeployment of assets and personnel when the conditions surrounding the transaction change. However, bounded rationality limits the span of effective managerial control. Lower-level managers and employees may engage in sub optimizing behavior, or they may have insufficient incentives to minimize production costs. If it is feasible to have more than one source of supply, organizations can mitigate some of the negative effects of markets and vertical integration by maintaining both internal and external providers.

Outsourcing part of the workload to an external provider or allowing internal customers the option to buy externally can create incentives for the internal provider to control costs and improve performance by exposing it to market pressures. Conversely, retaining some capability to produce in-house can allow organizations to maintain management competencies needed to make more effective sourcing decisions; retain some leverage over the external provider, particularly when there are only a few potential suppliers; and maintain surge capacity.

2.3 Theoretical Models

2.3.1 Organizational Performance Measurement System Model

2.3.2 Porter's Diamond Model

The Porter's diamond elaborates his thinking into clustering of industry with four main internal variables. These include:- factor conditions, demand condition, strategy of the company structure and the related and supporting industries. Two other external variables -government and chance are also included in the model (Porter, 1990). The factor conditions include among others the human resource, knowledge resources, capital, physical resources and infrastructure. The demand conditions include the structure of domestic demand, size of demand and pattern of growth and the internalization. The strategy of the company structure and rivalry includes the strategy and structure, goals, personal goals and rivalry among the local companies. The related and supporting industries include suppliers, customers and related structure.

This model was informed by different variables investigated on this study as outlined indifferent sections on theoretical review. Operation Cost variable was particularly informed by the factor conditions which include among others the financial, labor or technological costs like an adequate information system depending on the nature of the organization. Labor cost drives the industry as the systems and processes cannot drive themselves. This study therefore was to investigate their Criteria for 3PL evaluation and selection in the transport industry.

2.5.1 Operation Cost

Selection criteria for outsourcing logistics to 3PL providers on operation costs was a key decision in logistics management from the customer's point of view this was the selection of the transportation mode and carrier to move company's inbound and outbound freight. When making this decision, managers must typically consider different attributes related to cost and transit time as the primary criteria. However, the importance of individual factors often depends on the industry and company size. Moreover, even these factors may differ within a company from one facility to the next (Meixel & Norbis, 2008). 3PL selection criteria, especially the mode choice and carrier selection are part of the logistics decision making process of the 3PL customers. These include identifying relevant logistics performance variables, selecting the most suitable mode of transport and carrier, negotiating rates and level of service, and evaluating the carrier performance (Monczka, Trent & Handfield, 2005). According to Russell and Taylor (2003), transportation costs within manufacturing firms in 2003 were average 20 percent of the total production costs. Thus, no doubt these decisions are important to logistics managers.

Research by Selviaridis and Spring (2007), highlights that decision to outsource other activities differs substantively from the 3PL selection, but the factors used to evaluate different providers are similar. These are cost, service quality, reliability, flexibility and responsiveness. According to McGinnis (1990), when it comes to the carrier selection attributes both before and after the deregulation in logistics industry, transportation choice was largely influenced by six factors: freight rates; transit time; reliability, loss/damage/claims processing/tracing; shipper market consideration; and carrier considerations.

When evaluating the 3PL provider, a set of criteria must be defined. They can typically include cost, quality, capacity, delivery capability, and financial stability. Furthermore, cultural compatibility, customer references, operating and pricing flexibility and IT capabilities can play an essential role in selecting 3PL provider (Vaidyanathan, 2005). According to Vaidyanathan (2005), different 3PL evaluation criteria can help the 3PL customers to evaluate their current and prospective 3PL providers and choose the most suitable one. Thus, the following is hypothesized.

Hypothesis H$_1$: Operation *Cost significantly influence Organizational Performance in Indigenous Third Party Logistics Businesses in Kenya*

Research Methodology

3.1 Introduction

This chapter describes the methodology that was used in undertaking the study. It started by explaining the research design adopted. Based on the conceptual framework and variables developed in Chapter two, this chapter covered the research design and research methodology

used to test the variables. The chapter addressed issues related to research design, the population, the type of data collected, data collection instrument, data collection procedure, pilot test, validity and reliability tests of the instrument used and the how the data analysis was carried out.

3.2 Research Design

In this study, descriptive survey design will be used. The research design was the plan, structure of investigation conceived so as to obtain answers to research hypothesis and to control variance (Kerlinger& Lee, 2000; Kothari, 2004; and Wiersma & Jurs, 2009). Sekaran (2003) highlighted that a research design can either be exploratory, descriptive, experimental or hypothesis testing. According to Neuman (2000), descriptive survey design involves large numbers of persons, and describes population characteristics by the selection of unbiased sample.

It involves using questionnaires and sometimes interview tests, and generalizing the results of the sample to the population from which was drawn. This study was concerned about associations or relationships between variables therefore, descriptive survey design was applied because it was found to be flexible enough to provide opportunity for considering different aspects of a problem under study (Creswell, 2003).

The study took a positivism philosophy as used in scientific methods to collect data using quantitative approach through questionnaires to gather reliable data. Saunders, Lewis and Thornhill (2006) defined research philosophy as development of knowledge and nature of that knowledge based on assumptions about ones views of the world which influences the way research was conducted.

Two main research philosophies were positivism and phenomenology (Benz and Newman, 1998). According to positivism philosophy, reality was stable, observable and can be measured. Knowledge is obtained using the scientific method which is objective and measurable. To prove that a phenomenon exists, one has to collect data scientifically and what that cannot be tested empirically cannot be regarded as proven. Positivism has no value judgments, only statements which can be tested scientifically. To prove the validity of a statement, data must be collected (for example using experiments, surveys) using methods that are agreed on by the scientific community. Also, the research when repeated should yield the similar results.

On the other hand, phenomenology philosophy focuses on the processes and experiences one goes through. Literally, phenomenology was the study of "phenomena" or the things we experience and the ways we experience such things. Experience is a complex concept and not directly observable by an external observer. However, 'intersubjectivity' is often used as a mechanism for understanding how people give meaning or interpret their experiences (Benz & Newman, 1998). Generally, the underlying philosophy of qualitative research was phenomenology while the underlying philosophy of quantitative research is positivism. Positivism philosophy was justified by the stability and measurable nature of their information gathered via questionnaire. Contrary to the phenomenology approach, the study's sample was scientifically selected to ensure reliability, non-biasness and objectiveness of the collected data. It allowed use of statistical analysis like factor analysis and cluster analysis which was not possible for phenomenology approach where only descriptive analysis can be carried out.

3.3 Target Population

Target population in statistics is the specific population about which information was desired. According to Kothari (2004), a population is a well-defined or set of people, services, elements, events, group of things or households that are being investigated (Mugenda and Mugenda, 1999). The target population of the study is composed of all the 181 registered indigenous firms in the Third Party Logistics Businesses in Kenya. The respondents were drawn from operations managers employees in the 181 indigenous Third Party Logistics registered in Kenya Transport Association. Mugenda and Mugenda (1999), explain that the target population has some observable characteristics, to which the researcher intend to generalize the results of the study.

3.4 Census enquiry

Owing to the small nature of the population i.e. the 181 indigenous third party logistics businesses, the study adopted the census enquiry approach to get the samples following Kothari and Garg (2014) who suggested that if the target population was not so large, census survey may provide better results than sampling surveys. The unit of observation in this study was the 181 indigenous third party logistics companies who are registered by the Kenya Transport Association (KTA, 2012) and unit of analysis was the operation managers. These are the ones who could realistically be included in the study because they are known from the KTA list.

 Furthermore, it was assumed that in such inquiry, no element of chance was left and highest level of accuracy was obtained. The use of census approach thus eliminates the fears of not achieving external validity that was normally associated with sampling since the entire population was used.

3.5 Instruments of Data Collection

In this study, the instruments which were used for data collection were: literature review for secondary data and questionnaires for primary data. Literature review from existing sources was the major instrument for secondary data. For primary data it was used as the major instrument (Anderson & Shaw, 1999).Questionnaire is a method of data collection in which respondents provide written answers to written questions (Gillham, 2008; and Leary, 2001).

Use of questionnaires in this study enabled coordination of data collection and guidance on the required information. The questions therein were open ended question on the questionnaire as suggested by Kothari and Garg(2014) this was because it provides a complete picture of respondent's feelings and attitude which was critical for this particular study which also looks at the perception of different levels of management, closed questions will also be used using 5 likert scale this will assure collection of all the available data not ignoring any important information from the respondents while at the same time making it possible to analyze through restricted likert scale. The open ended questions were designed to capture opinions of the respondents with regards to the variables under investigation. The questionnaires were mailed through post or hand delivered where appropriate to the respondents who were expected to read, understand and fill appropriately. Once administered, the questionnaires was collected, coded, checked for completeness and consistency. Many scholars have used the questionnaire on collection of data on studies in transport industry like (Mello et al. 2008 and Jharkhariaa & Shankarb, 2007), drivers of outsourcing decision (Rao & Young, 1994) and in other industries like tourism industry (Ragui 2013) success of indigenous tourism industry in Kenya.

3.6 Data Collection Procedure

The study took pilot study which was a small-scale research project that collects data from respondents similar to those which were used in the full study (Zikmund et al., 2010). It will serve as a guide for a larger study by examining specific aspects of the research to ensure increased response rates, reduced missing data and obtaining more valid responses (Hair et al. 1998; and Schwab, 2005).The pilot study involved a randomly selected sample of 18 indigenous third party logistics respondents. This was 10% of the sample size based on the rule of thumb that 1 to 10 percent of the sample should constitute the pilot test (Cooper & Schilder, 2008; Kothari & Garg, 2014).

The same was not included in the final study following ASA (1997) to avoid survey fatigue. The reliability of an instrument refers to its ability to produce consistent and stable measurements whereas validity indicates the instrument measures what it purports to measure (Mugenda & Mugenda, 2003). The most common reliability coefficient was the Cronbach's alpha which estimates internal consistency by determining how all items on a test relates to all other items and to the total test i.e. the internal coherence of data. The reliability was expressed as a coefficient between 0 and 1.00. Cronbach's alpha value was therefore widely used to verify the reliability of a construct. Cronbach's Coefficient Alpha test was applied in this study to validate the measuring instrument to determine its portability, structure and reliability. The higher the coefficient, the more reliable was the test. Factor analysis was also carried to remove any redundant item from the questionnaire. Factor analysis as defined by Gall et al. (2007) was a statistical procedure for reducing a set of measured variables to smaller number by combining those that are moderately or highly correlated with each other.

Confirmatory factor analysis as Zikmund*et al. (*2010) and Hair et al. (2010) assert was more reliable when there was a strong theoretical expectations on the factor structure before carrying out the analysis. All items scoring less than 0.5 which is the minimum requirement for inclusion of variables into the final model will be dropped from further analysis (Hair et al., 2010; Kothari, 2004).The data collecting instrument was amended after the pilot study to reflect the corrections recommended by the respondents and supervisors who have knowledge in this area. The final version of the questionnaire (appendix 1) was sent to the 18 sampled firms using their email addresses on the KTA register.

3.7 Data Processing and Analysis

Data analysis is a practice in which raw data was ordered and organized so that useful information can be extracted from it (Saunders et al. 2009). The primary data obtained from the questionnaires were checked for omissions, legibility and consistency before being coded for analysis. All qualitative responses were analyzed using content analysis where the researcher obtained detailed information about the phenomenon studied and establish relationships from the information gathered whereas descriptive of means and the standard deviations and inferential statistics as Analysis of Variance (ANOVA) also referred to as F-test was used to test the significance of the model, regression analysis was used for the quantitative variables through application of inductive reasoning (Creswell, 2003). This was usually applied when one dependent variable was presumed to be a function of more than one independent variables (Neuman, 2000).

Neuman (2009) indicates the main advantage of SPSS as including many ways to manipulate quantitative data and containing most statistical measures. Normality test was carried out on the dependent variable (organizational performance in indigenous third party logistics businesses) and the residuals. This tested the normality of the sample to ensure there was a normal distribution on the same. Pearson's Coefficient Correlation analysis was used to examine the type and extent of the relationships of the independent variables:- cost, innovation, resilience, quality service, and relationship management – to the dependent variable –organizational performance in indigenous third party logistics businesses.

Kvasova (2012) in the study on Socio54 Demographic Determinants of Eco-Friendly retailers Attitudes and Behavior conducted in Cyprus used ANOVA successfully to test significance of the model. The main statistical model that was used for this study was the multiple linear regression model:

$$Y=\alpha+\beta 1 \chi 1+\hat{e}$$

Where: Y = organizational performance;

χ= the Y intercept;

$\chi 1$= operation cost;

e = error term which is assumed to be normal in distribution with mean zero and

variance (α).

4. Research findings and Discussions

Correlation between Organizational Performance and Operation Cost

To confirm the actual implications of the ensuing data, the researcher performed inferential analysis. For this study, the general objective was to determine critical success factors and organization performance in indigenous Third Party Logistic businesses in Kenya. On this purpose, the researcher first came out a Correlation analysis it gives the strength of the relationship between variables. In this study, Pearson product moment correlation coefficient (r) was used to establish the relationship between the Independent variable. The findings on table 4.13 reveals that there was no significant relationship between the independent variable since all the p-values were greater than 0.01. The finding also confirmed that there was no problem of Multi-collinearity among the variables since all the r values off diagonal were far much less than 0.8 as suggested by Tabachnick and Fidel (2001).

Table4.13 Correlation Analysis of Operation Cost Variable

	Operation cost	
	Pearson Correlation	1
	Sig. (2-tailed)	
Operation cost	N	146
	Sig. (2-tailed)	.174
	N	146

**. Correlation is significant at the 0.01 level (2-tailed).
*. Correlation is significant at the 0.05 level (2-tailed).

Homoscedasticity Test

To test for homoscedasticity, Levene test (1960) for equality of variance was computed using one way Anova procedure. This test was used to assess Variance homogeneity, which was a precondition for parametric tests such as the t-test and ANOVA. If the Levene test was statistically significant, the hypothesis of homogeneous variances should be rejected. The results therefore in table 4.13 indicated that the Levene statistic values and it was further established that the Levene statistic was significant (p-value>0.03). This therefore implies that the null hypothesis were accepted and thus the variances are said to be homogeneous. Given that the assumption of homogeneity of variance was not .

Table 4.14 Homoscedasticity

	Levene Statistic	3.967
Operation Cost	df1	1
	df2	145
	Sig.	0.321

Regression Analysis

Objective one: To establish operation cost and organizational Performance of Indigenous Third Party Logistic Businesses in the Transport Sector in Kenya. The objective was tested using the hypothesis which states that; *H_{01}: Operation Cost of Indigenous Third Party Logistic Businesses does not influence organizational Performance in the Transport Sector in Kenya.*

The primary objective of this study was to determine critical success factors and organization performance of indigenous Third Party Logistics businesses in the transport industry in Kenya. Operation cost as one of the identified independent variable was studied to determine its effect on success. After establishment of goodness of measure of the data using factor analysis, the hypothesis on the effect of Operation cost and organization performance of indigenous third party logistics owners was tested.

Model Summary

The test was conducted using the linear regression model. First is the model summary showing the correlation (R) and the coefficient of determination R square. The degree to which two or more predictors(X) are related to the dependent(Y) variable was expressed in the correlation coefficient R, and in multiple regressions the R square value can assume values between 0 and 1.0. The R-square is an indicator of how well the model fits the data. An R- square value which was close to 1.0 indicates that the dependant variable entirely depends on the independent variables while a value close to 0 indicates no correlation between the explanatory variables and the dependent variable (Ming'ala 2002). Table 4.11 shows the regression findings between operation cost and organization performance. Confidence level of 95% will be used and thus the significance or alpha level of 5%. The R coefficient of 0.675 indicated that the operation cost as the independent factor had a positive correlation of 67.5% with the dependent variable organization performance of indigenous third party logistic businesses in the transport industry. The R square also referred to coefficient of determination of 0.456 indicates that the model can explain only 45.6% of performance of indigenous third party logistic business in the transport

industry. This shows that operation cost as the independent variable of this study is a significant predictor of performance of indigenous third party logistic business in the transport industry.

Table 4.15: Model Summary – Goodness of fit

	Model	R	R Square	Adjusted R Square	Std. Error	Durbin - Watson
Operation cost	1	.675[a]	.456	.452	1.77225	2.043

Dependant variable: Organization   Performance

Analysis of Variance

Table 4.15 shows the analysis of variance - ANOVA.Organization performance of indigenous third party logistic businesses in the transport industry. P-value for model one was 0.00 which was less than the set level of significance of 0.05 thus the null hypothesis was rejected and concluded that a relationship between the dependent variable organization performance and the predictor variable, operation cost is significant at 0.05%. This means that operation costs are significant in performance of indigenous third party logistic businesses in the transport industry in Kenya.

Table 4.16: Analysis of Variance - ANOVA

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	379.279	1	379.279	120.756	.000[b]

Residual	452.285	144	3.141	
Total	831.564	145		

a. Dependent Variable: Organization Performance of (Y)

Predictor 1 Operation cost

From the coefficient table 4.13 t- test was also used to test the relationship between the predictor variable operation cost and organization performance and there was significance relationship between the two variables with p-value= 0.000 < 0.05 for the model. The regression equations between operation cost and organization performance model can be expressed as; Y=17.798 + 2.087X1. The model indicate that a unit change on operation cost as a combined variable causes 2.087 unit change in the organization performance of indigenous third party logistic businesses in the transport industry.

Table 4.17

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	17.798	.843		21.120	.000		
	Operation Cost	2.087	.190	.675	10.989	.000	1.000	1.000

a. Dependent Variable: Organization Performance

The level of significance, α, is 0.05. From Table 4.13, the p-value is 0.000. This means that the alpha level is greater than the p-value. This led to conclusion that **null hypothesis should be rejected** (Operation Cost of Indigenous Third Party Logistic Businesses does not influence organization Performance in the Transport Sector in Kenya.). Operation Cost are therefore

important to consider in the success of indigenous third party logistics businesses in the transport industry. This corroborates with the findings of scholars like: Gaur et al. (2011); Khan (2008); and Mafunzwaini and Hugo (2005) that operation costs are vital for performance of a business. Transaction Cost Economics focuses on the organization of transactions that occur whenever a good or service is transferred from a provider to a user across a technologically separable interface. When transactions occur within an organization, the transaction costs can include managing and monitoring personnel and procuring inputs and capital equipment. The transaction costs of buying the same good or service from an external provider can include the costs of source selection, contract management, performance measurement, and dispute resolution.

Thus, the organization of operation cost, or "governance structure," affects transaction costs. Transaction Cost Economics asserts that the transaction is the basic unit of economic activity, where a transaction "may be said to occur when a good or service is traded across a technologically separable interface" (Williamson 1993). A transaction cost is a cost incurred in maki `ng an economic exchange. Transaction costs are those over and beyond the price of the product or service procured. They broadly break down into motivation and coordination costs (Milgrom and Roberts 1992). Opportunism (Williamson 1985) and agency costs (Jensen and Meckling 1976) are components of motivation costs. Coordination costs include search (Stigler 1961), input coordination (Armen and Demsetz 1972), and measurement costs (Barzel 1982). In reality, these costs can be extended across multiple economic exchanges.

Williamson defined a governance structure as an "institutional framework in which the integrity of a transaction or related set of transactions is decided" (Williamson, 1996, p. 11). Governance thus consists of formal and informal structures and rules that enable carrying out economic transactions in an economic manner (Wieland, 2005). TCE maintains that hierarchies and markets are alternative governance structures to organizing economic activity (Arrow 1974) and that firms need to align governance structure and transaction characteristics (Williamson, 1985 Silverman, Nickerson, and Freeman, 1997). The basic argument of TCE is that decision makers will choose whichever governance structure minimizes the total cost associated with a transaction (Coase, 1937) (see Figure 2.1).

It is thus important for the indigenous third party logistic businesses to consider increase of operation costs. Operation costs should be looked into keenly because a drop in their quality negatively affects success of the transport business. Enhancing transport cost is key to success and should be given high priority for core competencies building.

5.0 Conclusions , Recommendations and Future research

5.1 Introduction

This chapter presents the summary of the study which sought to investigate the critical success factors and organization performance in indigenous third party logistics businesses in Kenya. The study was guided by specific objective and hypothese. This chapter therefore presents the

summary of the research work, conclusions drawn from the study, recommendations and areas of further research in relation to the data analysis.

5.2 Summary of Findings

From the theoretical information garnered organization performance is meant to convert data external sources into information and to communicate that information, in an appropriate form, to managers at all levels in all functions to enable them to make timely and effective decisions for planning, directing and controlling the activities for which they are responsible. The study employed descriptive research design.). The target population of the study was composed of all the 181 registered indigenous firms in the Third Party Logistics Businesses in Kenya. The respondents were drawn from operations managers employees in the 181 indigenous Third Party Logistics registered in Kenya Transport Association. Mugenda and Mugenda (1999 Owing to the small nature of the population i.e. the 181 indigenous third party logistics businesses, the study adopted the census enquiry approach to get the samples following Kothari and Garg (2014) who suggested that if the target population is not so large, census survey may provide better results than sampling surveys. A questionnaire containing semi structured questions and a likert scale was used for collecting data. Out of 181 respondents given the questionnaire 146 employees which was 79.86%. responded. This was considered adequate, as espoused by Mugenda and mugenda (2003).

Pilot testing was done using a sample of 18 questionnaires where reliability, validity and factor analysis was performed. This helped improve the research instrument greatly cronbach was used whose cut- off value of 0.70 while discarding the factor loadings that were less than 0.40. Responses for the predictor variable were presented in descriptive statistics. Further multiple regression which involved analysis of variance, coefficients model summary and the findings from the analysis used to test the null hypotheses for each objective. Correlation analysis to test relationship between independent variables was done using Pearson product moment correlation coefficient (r's). In the study there was no problem of multi-collinearity among the variables since all the r values were less 0.8.

5.3 Conclusion

Operation Cost

The study sought to determine critical success factors and organization performance in indigenous third party logistic businesses in the transport industry in Kenya. This section highlights the main conclusions on the operation cost, towards organization performance in indigenous third party logistic businesses in the transport industry in Kenya.

Taking everything into consideration, it can be concluded that the main drivers for retailers to outsource logistics activities are to reduce transportation and warehousing costs, improve company focus, improve delivery times and improve the competitiveness of the company. Hire or lease of vehicles is becoming increasingly common in Kenya for industries whose inventory management of fleet is low. This is done through third party logistics where the firms

subcontract others whose core business is related to the services they are looking for and thus concentrate on their core businesses. This however could be detrimental to the Third Party logistics businesses, as they need to ensure quality service given to the customers and consequently skilled drivers in customer service is vital. Another disadvantage of this approach is that the reliability of the inventory may be questionable leading to poor quality service and unnecessary delays. It is thus important for the indigenous third party logistic businesses to consider increase of operation costs. Operation costs should be looked into keenly because a drop in their quality negatively affects success of the transport business. Enhancing transport cost is key to success and should be given high priority for core competencies building.

5.4 Recommendations.

In view of the findings as well as the conclusion deduced from the study some recommendations were made. This study sought to was to determine critical success factors and organization performance in indigenous third party logistics industry in Kenya. The study justifies that, a transport business owned by indigenous Kenyan that:

The main drivers for retailers to outsource logistics activities are to reduce transportation and warehousing costs, improve company focus, improve delivery times and improve the competitiveness of the company.

By using in-formation transmissions and dissemination technologies, retailers can radically improve their reaction time to fluctuations in demand. Thus, if the logistics system operates

properly, a company can both reduce costs and improve service quality, and therefore create organizational performance.

5.5 Areas for Further Study

The productivity of service providers in business processes is enhanced through incremental improvements in the quality of 3PL services. Using information technology (IT) and knowledge management to enhance productivity will be the wave of the future (Elmuti, 2002). The management of new business processes means the development of new products concurrently and the utilization of the organization's resources and product development processes to implement this strategy. It is important to note that the revised model of this study was only able to answer the question of organization performance by 82.8%. It would thus be necessary for further study on the topic to find out other factors causing either success or failure of the indigenous third party logistic businesses in transport industry in Kenya. Operation cost in this study seem to be positive as it increases but in most cases it is vice versa further research is to be done on the variable which can cause a company's downfall as it increases therefore it might be positive and negative in performance relationship.