



**DETERMINANTS INFLUENCING STRATEGIC PERFORMANCE OF INDIGENOUS THIRD PARTY
LOGISTIC BUSINESSES IN TRANSPORT SECTOR IN KENYA.**

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DETERMINANTS INFLUENCING STRATEGIC PERFORMANCE OF INDIGENOUS THIRD PARTY LOGISTIC BUSINESSES IN TRANSPORT SECTOR IN KENYA.

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Accepted December 5, 2014

Abstract

Globalization, economic volatility and uncertainty have impacted global business markets. This has also had an effect on the logistics and supply chain sector. The third party logistics (3PL) industry is constantly changing due to global industry consolidation, technology integration, industry specialization and industry alliance networks. The most significant changes have been in areas such as 3PL industry size and makeup, services offered, geographical reach and the information technology (IT) support provided. Companies can survive in a highly competitive environment by creating competitive advantage. Literature presents two different strategies for creating competitive advantage. These are cost leadership and innovation. Furthermore, innovations and collaboration between companies can also be strategies for creating competitive advantage.

The purpose of this paper is to analyze from the retailers' perspective, how determinants of 3PL providers could meet the customers' needs better and create Strategic Performance in the 3PL market. Furthermore, the purpose of the research is to find out which are the main determinants, according to the customers' needs, the best directions that 3PL providers should follow for their strategic performance.

This research contains both inductive and deductive research approach elements. The empirical data is collected through a survey and interviews. In total 232 Logistic firms took part in the survey. The collected data have been analyzed using descriptive and inferential statistical analyses. The study established that Cost and innovation plays a significant role on strategic performance. It recommends that in order for 3PL providers to create competitive advantage, they should focus on the three elements: selection criteria, incentives and barriers. These influence their relationship with the retailers. 3PL providers should also try to enhance the service quality and satisfaction level in the fields of transportation, warehousing and reverse logistics activities. Most importantly, 3PL providers should provide logistics services and solutions that are in the same level with the retailers' objectives. Furthermore, 3PL providers can also improve their efficiency and become more competitive by having deeper co-operation with other logistics providers.

Background

Stages of 3PL evolution

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).

Definitions of 3PL

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 encompass the entire logistics process or selected activities within that process". 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. Further-more, the length of cooperation between the customer and provider should be

at least one year in order to differentiate 3PL from traditional 'arm's length' sourcing of transportation and/or warehousing. 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.

Problem Statement

Nearly three in five (58%) shippers are reducing or consolidating the number of 3PLs they use. Shippers report spending an average 12% of revenues on logistics, and an average 39% of that figure is spent on outsourced logistics services. Shippers are more satisfied than 3PLs (71% to 63%) Shippers' openness to more strategic 3PL-shipper arrangements, including gain sharing and collaboration with other companies, appears to be declining somewhat (ROK 2009). The IT Gap appears to have stabilized over the last few years, with 94% agreeing that IT is a necessary element of 3PL capability but just 53% indicating they are currently satisfied with 3PL IT capabilities. Although, the 3PL sector is a fast growing sector, the competition in the industry and the needs of the customers are increasing as well. Customers claim that the 3PL should provide a broad comprehensive set of service offerings. Therefore, providers are under constant pressure to expand and differentiate their services (Commonwealth Business Media Inc., 2006). There are several different directions and strategies for 3PL providers to follow in order to be more competitive. In order to expand their activities, some 3PL companies

create alliances with other 3PLs and transportation companies (Lieb, 2005). There is also the trend from companies to reduce their suppliers and focus on a full product service provider (Trent, 2005). This is the reason why some 3PL providers prefer to implement the strategy “everything for everyone”, and offer all kinds of services to all kinds of customers. However, this strategy is not always successful as it might lead to a situation of losing the company focus and competence (Lieb, 2005). Another strategy is to focus on a specific industry and try to offer more customized services. According to Lieb (2005), major service providers in the 3PL sector, in Kenya have become more “customer selective”. This customer selective approach has led the providers to focus on long-term relationships and on a tendency to reply to fewer requests for quotation (RFQ). The customer selective approach has benefited the large 3PL providers and their customers, but has left many indigenous 3pl businesses with fewer alternatives for 3PL services. Moreover, a large amount of 3PL providers focus on value adding services such as packaging, labeling(Laarhoven & Sharman, 1994). Even though, the return on investment is low, some 3PL providers invest a lot in IT assets and services (Lieb, 2005). Furthermore, moving to more complex and advanced services has increased the cooperation between 3PL and fourth-party logistics providers (4PLs) (Hertz & Alfredsson, 2003). There are supporters who claim that the more costs a 3PL provider takes from its clients business the more the 3PL provider will earn (Hertz & Alfredsson, 2003).

According to Berglund, et al. (1999), in the end of the 1990's the 3PL industry had not yet reached its mature stage and would continue growing. According to Lieb (2005), even

though a lot of 3PL providers have gone out of business, the revenues of the remaining companies have increased. On the other hand, competition has forced 3PL companies to try to find more advanced services in order to differentiate themselves and be more competitive. This study therefore has led to the study of determinants influencing on strategic performance of third party logistic businesses owned by indigenous firms in the transport industry in Kenya. In a global competitive environment 3PL providers should differentiate themselves and offer better services to their customers, compared with their competitors, in order to stay in business.

General Objective

Determinants Influencing Strategic Performance of Indigenous Third Party Logistic Businesses In Transport Sector In Kenya.

Specific objectives

- i. To find out whether Cost influences Strategic Performance of Indigenous Third Party Logistic Businesses In Transport Sector In Kenya.
- ii. To determine whether Innovation influences Strategic Performance of Indigenous Third Party Logistic Businesses In Transport Sector In Kenya.

Research Hypothesis

- i. Ho: Cost of Indigenous Third Party Logistic Businesses do not influence Strategic Performance In Transport Sector In Kenya.
- ii. Ho: Innovation of Indigenous Third Party Logistic Businesses do not

influence Strategic Performance In Transport Sector In Kenya.

2.0 Literature Review

Competitive advantage / Strategic Performance

Competitive advantage/ strategic performance exists when a company is able to deliver the same benefits as competitors at a lower price, or deliver benefits that exceed those of competitors' products or services (Porter, 1985). According to Porter (1985, p.15) "competitive advantage is at the heart of any strategy, and achieving competitive advantage requires a firm to make a choice". The choice that every company should take is based on two aspects. The first aspect is related to the type of competitive advantage that the company seeks and the second to the scope within which the company will attain it.

Porter (1985) suggests three general strategies for creating competitive advantage. The first one is called "Cost Leadership". In this strategy companies try to become the low-cost producer in their industry. However, companies with cost leadership strategy should not ignore the bases of differentiation. The second strategy is called "Differentiation". In a differentiation strategy, companies try to be unique in each sector by providing products and services that their competitors are not able to provide. However, companies which follow this strategy should not ignore the cost factor either. The third strategy is called "Focus". In this strategy companies elect to serve a segment of the market or a group of customers and adjust their services for this specific sector. However, the other two factors of cost and differentiation should not be ignored.

As companies seek to create competitive advantage in the global marketplace the consequences of poor strategic decisions increase dramatically. If companies want to create competitive advantage based on low cost, they should take into consideration that low cost strategies may reduce the quality of the products and services (Whipple & Roh, 2010).

Furthermore, one critical factor which determines company's success and their competitive advantage is innovation. As the global marketplace is changing, companies are forced to look for new ways of innovation (Flint, Larsson, Gammelgaard & Mentzer, 2005). Moreover, collaboration is another factor that leads to an effective supply chain and can create ultimate core capabilities. Good collaboration, includes activities such as information sharing, joint problem solving, joint planning, and leads to efficiency, effectiveness, profitability, and at the end helps companies to gain competitive advantage (Min, Roath, Daugherty, Genchev, Haozhe Chen, Arndt & Richey, 2005). Yazdanparast, Manuj and Swartz (2010) also state that developing a competitive advantage is becoming difficult in the existing hyper-competitive, complex, global environment. Yazdanparast et al. (2010) suggest that logistics companies can achieve competitive advantage through co-creation of logistics services with their customers.

Moreover, information communication technology (ICT) has become an important element of 3PL competitive advantage (Evangelista & Sweeney, 2006). Furthermore, companies' activities and their social consequences have attracted the attention of governments, activists and media. There are organizations that rank companies based on their "social responsibility" and usually these

rankings attract considerable publicity. If companies are able to use their “social responsibility” in an effective way, they can create opportunities, innovation and competitive advantage (Porter & Kramer, 2006).

2.1 Selection criteria for outsourcing logistics to 3PL providers on Costs

A key decision in logistics management from the customer’s point of view is 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.

2.2 Risks and barriers in 3PL outsourcing and how to reduce them.

According to Langley et al. (2012), one of the main reasons for companies not to outsource their logistics activities is that they consider logistics as their core competence, and therefore choose not to outsource. Moreover, some companies believe that cost reduction would not be experienced through outsourcing this particular function. Barriers related to information technology integration and company’s belief that they can operate logistics activities more efficiently by themselves, are also reasons not to outsource logistics activities.

Kaya and Özer (2009) state, that one of the main risks in outsourcing is related to the quality of the offered products or services. For

example, the contract company may not be able to satisfy the quality level that the customer desires. Moreover, the price strategy and the selection of a contract partner based on price, may also affect the quality of the products or the services. Wang and Regan (2003) list eight potential risks and barriers related to 3PL outsourcing. These are the possibility of inefficient management, latent information asymmetry, loss of logistics innovative capacity, hidden costs, dependence on the third party logistics provider, loss of control over the third party logistics provider, problems of evaluating and monitoring third party logistics provider performance, conflicts of firms' culture

If a company has an efficient and well-managed distribution system, outsourcing this function to a 3PL provider may not reduce operational costs. If this is not the case, a company might have an incentive to outsource it to a 3PL provider. However, even in the case of outsourcing, the executives of the company must also have the know-how and skills to manage contracts and relationships with the 3PL provider. Wang and Regan (2003) state that if the logistics activities have been managed poorly in the first place, logistics manager of the company may not be able to manage the external provider any better. There is also always an existence of an information asymmetry in logistics outsourcing. The 3PL provider rarely has complete information about their contracting company and vice versa. For example, if the 3PL provider does not have the sufficient information about their contracting company's cost structure, the price they offer, may not match to that cost structure. Wang and Regan (2003) also discuss the risk of losing the logistics innovative capacity, when outsourcing the logistics operations. The authors claim in

order for the company to maintain competitive competencies, it has to find new ways of provide logistics services for the business. Outsourcing logistics activities does not guarantee innovation; the 3PL provider may have a primary focus on costs and does not necessarily recognize the opportunity to innovate. Many companies tend to underestimate the costs related to selecting an appropriate 3PL provider, and negotiating and drawing up the contract. Thus, benefits can be weakened by the costs that managers cannot identify. According to Garaventa and Tellefsen (2001) the costs that managers may not be able to identify from the beginning can be categorized as: administrative costs, human costs such as lower employee performance and ethics costs. Giving more time and allowing additional expenses early help to avoid problems later. For example, estimating transition costs, when switching in-house logistics operations to a 3PL provider, can be very difficult. Managing the transition process of outsourcing the operations from in-house to 3PL provider, covers three areas, monitoring to see that logistics providers fulfill their contractual obligations; bargaining with logistics providers; and negotiating any needed contract changes. (Wang & Regan, 2003)

Another risk related to 3PL outsourcing is the dependence on the 3PL provider. If a company outsources their logistics activities to the same 3PL provider over a long period of time, it may become vulnerable and even lose the control of its logistics activities. As a result of a collaborative project, it is common to lose some control of the project. Especially in outsourcing agreements, part of the control inevitably passes from the user to the provider. Wang and Regan (2003) claim that the level of how effectively a company can

control its outsourced logistics will be greatly determined by the type of information received and how early the problems are detected.. Lack of effective communication could lead to problems of quality and delays, and misunderstandings and even mistrust.

In order to evaluate properly the performance of a 3PL provider, companies should have clear guidelines to measure a 3PL provider's outcomes. However, this is usually over-looked and left without proper attention when having a partnership with a 3PL provider. Thus, in order to ensure that a 3PL provider meets the required standards, resources, such as time, money and expertise must be allocated in establishing an effective monitoring system (Wang & Regan, 2003). According to Vaidyanathan (2005) a set of criteria must be defined, in order to evaluate the performance of 3PL provider. These criteria typically include cost, quality, delivery capability, capacity and financial stability.

Finally, conflicts in firms' culture can also a potential risk in 3PL outsourcing. These conflicts arise through different goals of each party in 3PL arrangements. According to Power, Bonifazi & Desouza (2004) the impact of cultural differences between the client and the vendor is one of the most difficult issue in outsourcing. Both client and vendor have the opinion that their partner has the same culture and way of thinking; however, this is not always true. Moreover, the management style and the level of bureaucracy within companies may also vary. Thus, taking these factors into consideration is vital in order to maintain the viability of the collaboration and future success of the partnership (Wang & Regan, 2003).

2.4 The logistics needs of retailers on Innovation

In today's highly competitive retail marketplace, characterized by changing consumer preferences as well as the large geographical spread of stores, retail logistics play an important role in ensuring efficiency and managing cost margins. Retailing and logistics are usually related with product availability. Thus, many have described this as "getting the right products to the right place at the right time". The beliefs and needs of consumers change over time. Traditional methods of developing logistics strategy are no longer valid for ensuring companies' survival (Bolumole, 2001). Customers, nowadays, are less willing to wait to be satisfied or served and more often expect instant product availability. Thus, the supply or logistics system which enables the product to go from production through retailing and final consumption has also needed to be transformed. As a result, physical distribution and materials management have been replaced by logistics management and are part of the whole supply chain. This transformation arises from increased cost and service requirements and changes in consumer and retailer preferences (Fernie & Sparks, 2004).

The logistics operations in retailing can be considerably expensive, if not managed effectively. For example, keeping too much inventory is a highly costly activity. Moreover, building, operating and maintaining warehouses and distribution centers are generally expensive. Also, owning trucks and transporting goods between different locations are costly activities, which require capital and create running costs. Thus, it is important to make sure that these operations are carried out effectively and efficiently (Fernie & Sparks, 2004). Outsourcing these activities to 3PL service providers can help retailers to increase operating flexibility, reduce fixed assets and

increase efficiency (Anderson, Coltman, Devinney & Keating, 2011). Outsourcing distribution operations to 3PL service provider is not a new trend in retailing, as plenty of retailers have outsourced some of the logistics operations going back to the 1970's (Wulfraat, 2012).

Capgemini's 2005 "10th Annual Third-Party Logistics Study", conducted jointly with the Georgia Institute of Technology, DHL, and SAP, reveals that retailers see the out-sourcing partnerships with their 3PL providers as an essential factor in improving company's performance and critical in achieving better replenishment in retailing establishments (Goolsby, 2006). Roughly seventy percent of the survey participants report, that they have a co-operative relationship with 3PL providers and that they are under pressure to maintain this relationship in the future as well (Langley, 2005).

According to Fernie and Sparks (2004) with appropriate logistics, retailers' products can achieve better presentational quality, possibly be cheaper, and have a longer shelf life. Moreover, there should be significantly less instances of stock outs. 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 competitive advantage.

RESEARCH METHODOLOGY

3.1 Introduction

Kothari (2004) defined research methodology as a science of studying how research is done scientifically. This involves hierarchical steps

on how the research is carried out. It details the research design, target population, sampling technique, instruments of data collection and data analysis.. This chapter discusses various steps adopted by this study in determinants influencing strategic performance of indigenous third party logistics businesses in transport sector industry in Kenya.

3.2 Research Design

In this study, descriptive survey design was used. The research design is 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, 45 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 it is drawn. In this study, descriptive survey design was also applied because it was found to be flexible enough to provide opportunity for considering different aspects of a problem under study (Creswell, 2003). Why chose industry study is because it enabled the researcher to get more detailed information about the experiences of the employees of third party logistics companies and customers concerning in third party logistics in Kenya.

3.3 Target Population

Target population in statistics was the specific population about which information was desired. According to Kothari (2004), a

population was 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 was composed of all registered local firms in the Third Party Logistics Companies in Kenya. The respondents were drawn from the employees of different hauliers in the industry which are registered in Kenya Transport Association with total 232 registered. Mugenda and Mugenda (1999), explain that the target population had some observable characteristics, to which the researcher intends to generalize the results of the study. This definition assumes that the population was not homogeneous. The population characteristics were summarized in table 3.1. The accessible population in this study was the 232 local tour third party logistics companies who are registered by the Kenya Transport Association (KTA, 2012). These are the ones who could realistically be included in the study because their physical, telephone and email addresses were known from the KTA list.

Table 3.1: Target Population

Sections	Population (Frequency)	Percentage %
Top management	11	4.7
Middle level management	15	6.5
Low level management	206	88.8
Total	232	100.0

Source: 3PL HR Manual, 2014

3.4 Sample Size and Sampling Technique /Sampling Frame

In this study the sampling frame was the list of 232 registered active KTA local third party logistic company (KTA, 2012). A sampling frame is a list of population from which a sample will be drawn from (Leary, 2001; and Särndal, Swensson & Wretman, 2003). Bailey (2008) argues that the sampling frame facilitates formation of a sampling unit that refers to one member of a set of entities being studied which is the material source of the random variable. From the 232 members a sample was randomly sought.

3.4.1 Sampling Technique

This study used probabilistic techniques, specifically stratified random sampling. Sampling technique can either be probabilistic or non-probabilistic (Castillo, 2009; Gall et al. 2007; Kothari, 2004; and Mugenda & Mugenda, 2003). In probabilistic sampling every unit in the population has a chance of being selected in the sample, and this probability can be accurately determined. The method can be: simple random, systematic, stratified, and multi stage sampling. Non probabilistic sampling is where some elements of the population have no chance of selection or their probability of selection can't be accurately determined. The methods available here are convenience, quota sampling and snowballing. Creswell (2008); and Gall et al. (2007) highlights that stratified sampling is used when the population has different characteristics thus to ensure that all get equal chances, the population is sub-divided into strata before using simple random sampling to get a sample from each stratum. In this study, the population was divided into six categories

based on their gross annual turnover following KTA's classification. From KTA's list of registered members the strata are classified according to their logistic service they provide: Category "1" - All members on carrier selection; Category "11" - All members on warehousing; Category "111" - All members on freight forwarding; Category "IV" - All members on Distribution; Category "V" - All members on packaging/ labeling; Category "VI" on inventory management and Associate - All new members who are yet to complete one full year in membership. From the six strata, simple random sampling was carried out to get the sample. This ensured equal chances of selection to all. It was thus a true representative of the population.

3.4.2 Sample Size and Sample

For this study, from the population of 232 Third Party logistics to get the sample was necessary. A sample is a true representative of the entire population to be studied (King'oriah, 2004 and Leary, 2001). Kothari (2004) advocates that good sample should be truly representative of the population, result in a small sampling error, viable, economical, and systematic. A sample was obtained from the sample frame which is the registered active KTA members who are locally owned. Kothari (2004) described sample size as the number of items to be selected from the universe to constitute a sample. There are several options to determine the sample size including census, imitating sample size of similar studies, using published tables, and applying existing formula. Different authorities give different parameters on the sample size for example Schewarz and Sudman (1995) recommends a minimum of 100 participants in survey research, Gall et al. (2007) recommends

minimum of 15 in experimental research and 30 in correlation research while Greener (2008) 49 recommends at least 30 but census if population is less than 30. The following formula of Cochran (1963) was used to calculate sample size: According to Kothari (2004) a representative sample was one which was at least 10% of the population thus the choice of 20% equal to 46 was considered as representative.

Table 3.2: Sample Size

Sections	Population (Frequency)	Proportional Allocation ($n_i = n \cdot P_i$)	Sample
Top management	11	$n_1 = 46 * (11/232)$	2
Middle level management	15	$n_2 = 46 * (15/232)$	3
low level management	206	$n_3 = 46 * (206/232)$	41
Total	232		46

Source: Author, 2014

3.5 Data Collection Procedure and Instruments

3.5.1 Type of Data

The study was to utilize both primary and secondary data. Primary data was collected through questionnaires.

3.5.2 Research Instrument

With respect to Strategic Performance, this study was to utilize a questionnaire to collect primary data as used in various previous research projects (Mugenda and Mugenda, 2003). A questionnaire was a research

instrument consisting of a series of questions and other prompts for the purpose of gathering information from respondents. The study was to consider questionnaires for they had advantages over other types of research instruments in that they were cheap, do not require as much effort from the questioner as verbal or telephone surveys, and often have standardized answers that make it simple to compile data.

The questionnaire designed in this study was comprised of two sections. The first part included the demographic and operational characteristics designed to determine fundamental issues including the demographic characteristics of the respondent. The second part was devoted to the identification of the determinants on Strategic Performance in third party logistics relationships in Kenya where the variables of the study were put into focus.

The questionnaire was designed to include both structured and unstructured questions. The structured questions were used in an effort to conserve time and money as well as to facilitate an easier analysis as they were in immediate usable form; while the unstructured questions were used so as to encourage the respondent to give an in-depth and felt response without feeling held back in revealing of any information. The scales to be used to measure the constructs describing the variables were ordinal scales where appropriate. These scales were in the agreement likert format (Binder and Roberts, 2003). The questionnaire was self-administered.

3.5.3 Data Collection Method

This study collected quantitative data using a self-administered questionnaire. Nevertheless, where it proves difficult for the respondents to complete the questionnaires immediately, the questionnaire was left with the respondents and picked later.

A cover letter from JKUAT was taken along to enable the administering of the questionnaire. The respondents were assured of confidentiality of their names and responses and that the responses was handled by any other person but rather was used purely for academic purposes. Each questionnaire was coded and only the researcher knew which person responded. The coding technique was only used for the purpose of matching returned, completed questionnaires with those delivered to the respondents.

3.6 Data Analysis and Presentation

Before processing the responses, the completed questionnaires were edited for completeness and consistency. The data was then coded to enable the responses to be grouped into various categories. Data collected was purely quantitative and it was analyzed by descriptive analysis. The descriptive statistical tools will help in describing the data and determining the extent used. Data analysis is a practice in which raw data is ordered and organized so that useful information can be extracted from it (Saunders et al. 2009). The primary data obtained from the questionnaires was checked for omissions, legibility and consistency before being coded for analysis. Majority of the data collected qualified for coding for further analysis. Qualitative measures took into account the feelings, attitudes and opinions of managers on their

success. Quantitative measurements involved statistical inference through application of inductive reasoning (Creswell, 2003). This is usually applied when one dependent variable is presumed to be a function of more than one independent variables (Neuman, 2000). The responses by managers were coded to enable them to be processed by computer. Statistical packages like SPSS were used to analyze the data to show the relationships between the variables. 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 (strategic performance) and the residuals. This tested the normality of the sample to ensure there is 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 and innovation – to the dependent variable – strategic performance. The analysis of variance (ANOVA) also referred to as F-test was used to test the significance of the overall model below. The confidence level to be used is 95%. Regression analysis was carried out to find out the rate of change of variables in relation to changes in one another. Kvasova (2012) in the study on Socio54 Demographic Determinants of Eco-Friendly retailers Attitudes and Behaviour conducted in Cyprus used ANOVA successfully to test significance of the model. The main statistical model that was used for this study is the multiple linear regression model:

Where: Y = strategic performance;
 χ = the Y intercept;
 χ^1 = cost
 χ^2 = innovation; and

e = error term which is assumed to be normal in distribution with mean zero and variance (α).

4. Research findings and Discussions

The response rate was 69.56%, 32 questionnaires were filled and 14 were returned. While the factor threshold of 0.33. According to Kothari (2005), it has become customary for loadings of 0.33 to be as values to be interpreted. The objectives of this study was to establish the determinants influencing strategic performance in local third party logistics company's in Kenya.

4.1 Correlation between Strategic Performance with Cost and Innovation

Correlation was used to analyze the degree of relationship between Strategic Performance with Cost and Innovation. For this study the Pearson moment correlation (r) was used to determine if there is a significant, positive association and to show the degree of relationship between two variables. Table 1 below shows that there is a negative significant linear relationship between Strategic Performance with Cost, a Pearson correlation coefficient of -0.317 and p-value of 0.043 and a positive significant linear relationship between Strategic Performance with innovation and a Pearson correlation coefficient of 0.471 and a p-value of 0.007.

The findings show that cost and innovation significantly affects strategic performance in local third party logistics in Kenya. These findings agree with a research by Langley et al. (2004) mention that cost reduction, supply

4.2 Regression Analysis Between Strategic Performance And Innovation And Cost

Regression analysis was used to find out if the independent variable (Innovation and Cost) predicts the given dependent variable (Strategic Performance). Linear regression yields a statistic called coefficient of determination (R^2), which was used to evaluate the contribution of each independent variable in explaining the dependent variable.

Table 2 shows that Innovation and Cost has an R square value of 0.350 or it contributes 35% to strategic performance while 65% can be explained by other factors. This implies that Innovation and Cost influences strategic performance and when used appropriately to ensure match between the logistic provider and the retailer it can contribute to strategic performance

Correlations

		Strategic Performance	Innovation	Cost
Strategic Performance	Pearson Correlation	1	.471**	-.317*
	Sig. (2-tailed)		.007	.043
	N	32	32	32
Innovation	Pearson Correlation	.471**	1	.084
	Sig. (2-tailed)	.007		.647
	N	32	32	32
Cost	Pearson Correlation	-.317*	.084	1
	Sig. (2-tailed)	.043	.647	
	N	32	32	32

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

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

a. Dependent Variable: Strategic Performance

Table. 1 Innovation and Cost

chain improvements, significant pressures to enhance strategic performance and globalization are some other additional reasons.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.591 ^a	.350	.305	.95742

a. Predictors: (Constant), Cost, Innovation

Table 2 Regression analysis with Innovation and Cost

As shown on table 3 on the test of significance, the p- value was 0.002 which is less than the level of significant of 0.05 and it shows a significant linear relationship between Strategic performance and innovation and selection. These findings agree with a research by Langley et al. (2004) which established a positive significant relationship between

innovation and strategic performance in local third party logistics in Kenya

From the hypothesis

Ho: Innovation and Cost is not significantly related to Strategic Performance

H1: Innovation and cost is significantly related to Strategic Performance

Since the p-value which is 0.002 is less than 0.05 (0.002 < 0.05) then we reject H0 and accept H1 that there is a significant relationship between Innovation and cost, and Strategic performance.

ANOVA^a

Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	14.292	2	7.146	7.796	.002 ^b
Residual	26.583	29	.917		
Total	40.875	31			

a. Dependent Variable: Strategic Performance

b. Predictors: (Constant), Cost, Innovation

Table. 3 ANOVA

When the following model was fitted to find out whether the independent variable of Innovation and cost predicts the dependent variable Strategic performance, it was found to have goodness of fit and therefore the model is significant as shown by table 4

From this table β_0 is 5.546 units, this can be interpreted as meaning that when there is no innovation and cost, the model predicts that Strategic performance will have 5.546 units. From these data, Innovation had a positive B-value (0.159) indicating positive relationship

and cost a negative B- value (-0.067) indicating negative relationship and therefore, as innovation increases, Strategic performance improves while when cost increases Strategic performance decreases.

Furthermore, the B-value also tells to what degree each predictor affects the outcome. The value $B_1 = 0.159 - 0.067$ indicates that as innovation increases by one unit, Strategic performance improves by 0.159 units while when cost increases by one unit, Strategic performance decreases by 0.067 units. If the B-values are substituted in the equation below, the model can be defined as follows :-

$$Y_{sp} = 5.546 + 0.159(\text{Innovation}) - 0.067(\text{Cost}) + \epsilon$$

$$Y_{sp} = \beta_0 + B_1x_1 + \epsilon$$

$$Y_{sp} = \text{Strategic performance}$$

$$\epsilon = \text{error}$$

Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Correlations		
	B	Std. Error				Beta	Zero-order	Partial
1 (Constant)	5.546	1.403		3.952	.000			
Innovation	.159	.048	.501	3.333	.002	.471	.526	.499
Cost	-.067	.028	-.359	-2.390	.024	-.317	-.406	-.358

a. Dependent Variable: Strategic Performance

Table 4. Coefficients

5. Conclusions and Recommendations:

5.1 Conclusion:

The findings agree with other researchers who have a positive and statistically significant association between use of innovation and cost procedure and profits lead to strategic performance, this is because it has a Pearson correlation coefficient of innovation 0.501, cost -0.359 and p-value of 0.002, which shows a significant correlation between innovation and cost and Strategic performance and R square value of 0.35 shows it contributes 35% to Strategic performance while 65% can be explained by other factors. This shows that when effective innovation and cost even with selection criteria on price, quality, flexibility and financial stability, it ensures that those selected, are selected on the basis of merit. This goes a long way in enhancing Strategic performance, by ensuring there is correct allocation of resources in the company.

5.2 Recommendations

- i. Providers could meet the customers' needs better and create competitive advantage for 3PL providers in the market. Furthermore, the purpose of the research was to find out which are, according to the customers' needs, the best determinants that 3PL providers should follow. The research findings indicate that there are three main elements, which influence the level of cooperation and commitment between the 3PL provider and the retailer. These are the 3PL selection criteria, the incentives, and the barriers for retailers to outsource 3PL activities. Thus, in order to create services that meet the needs of retailers, 3PL providers

should carefully analyze these three elements and create services accordingly.

- ii. The research findings revealed that trust and fairness followed by the price of the services, reliability and the communication between providers, were the most important criteria for retailers to select the 3PL provider. According to the findings, the most important drivers for retailers to outsource logistics activities were to decrease costs in transportation and warehousing, and to improve company focus, delivery times and the competitiveness of the company. The main barriers for retailers not to outsource logistics activities was the thought that the 3PL provider would not be able to increase the efficiency of the retailer or that the characteristics of retailers' products would not need 3PL outsourcing.

5.3 Suggestions For Further Research

In general, the retailers are satisfied with the variety of services offered by 3PL providers and most of them do not currently need any value-added services. Thus, the research suggests that 3PL providers should rather develop the most commonly outsourced 3PL activities for retailers, such as domestic transportation and reverse logistics and in that way increase the level of satisfaction among these activities and increase their strategic performance. Most importantly, 3PL providers should provide logistics services and solutions that are in line with the retailers' objectives, such as improving the company's focus which was the most important reason for outsourcing.

Taking everything into consideration, in order for 3PL providers to create competitive advantage, they should focus on the three elements: selection criteria, incentives and

barriers, which influence their relationship with the retailers and try to enhance the service quality and satisfaction level in the fields of transportation, warehousing and reverse logistics activities. Furthermore, since retailers do not seem to need more advanced,

customized, value-added and consultancy services, 3PL providers can also improve their efficiency and become more competitive by having deeper co-operation with other providers.

References

- Anderson, E. J., Coltman, T., Devinney, T. M., & Keating, B. (2011). What drives the choice of a third party logistics provider?. *Journal of Supply Chain Management*, 47(2), 97-115.
- Berglund, M., Laarhoven, P., Sharman, G., & Wandel, S. (1999). Third-party logistics: Is there a future?. *International Journal of Logistics Management*, 10(1), 59.
- Bailey, R.A. (2008). *Design of Two-Phase Experiments*. DEMA, Isaac Newton Institute
- Bolumole, Y. (2001). The supply chain role of third-party logistics providers. *International Journal of Logistics Management*, 12(2), 87-102.
- Castillo, J.J.(2009). *Convenience Sampling*. Available online at <http://www.experiment-resources.com/convenience-sampling.html> retrieved on 13 September 2011.
- Commonwealth Business Media Inc. (2006). The 3PL Origin and Evolution. *Traffic World*, 270(22), 33.
- Cochran, W. G. 1963. *Sampling Techniques*, 2nd Ed., New York: John Wiley and Sons, Inc
- Creswell, J. W.(2008). *Educational Research*. 3rd Edition. Upper Saddle River, New Jersey. Pearson Education, Inc.
- Creswell, J.W. (2003). *Research Design: Qualitative, Quantitative, Mixed methods Approaches*. (2nd edn.). London: Sage Publications.

- Evangelista, P., & Sweeney, E. (2006). Technology usage in the supply chain: The case of small 3PLs. *International Journal of Logistics Management*, 17(1), 55-74.
- Fernie, J., & Sparks, L. 2004. *Logistics and Retail Management. Insights into Current Practice and Trends from Leading Experts* (2nd ed.). London: Kogan Page Limited.
- Flint, D. J., Larsson, E., Gammelgaard, B., & Mentzer, J. T. (2005). Logistics Innovation: A Customer Value-Oriented Social Process. *Journal of Business Logistics*, 26(1), 113-147.
- Gall, M. D., Gall, J. P., & Borg, W. R. (2007). *Educational Research, 8th Edition*. Boston: Pearson Education, Inc.
- Garaventa, E., & Tellefsen, T. (2001). Outsourcing: The Hidden Costs. *Review of Business*, 22(1), 28-31.
- Goolsby, K. 2006. *Recent Trends in Retail Outsourcing*. Retrieved March 14, 2012, from <http://www.outsourcing-center.com/2006-01-recent-trends-in-retail-outsourcing-article-37696.html>
- Greener, S. (2008). *Business Research Methods*. ISBN 978-87-7681-421-2. Ventus Publishing ApS.
- Hertz, S., & Alfredsson, M. (2003). Strategic development of third party logistics providers. *Industrial Marketing Management*, 32, 139 – 149.
- Kaya, M., & Özer, Ö. (2009). Quality Risk in Outsourcing: Noncontractible Product Quality and Private Quality Cost Information. *Naval Research Logistics*, 56(7), 669-685.
- Kenya Association of Transporters (KAT). (2011). Retrieved 09 13, 2011, from KAT: <http://www.katkenya.org/>
- Kerlinger, F.N. & Lee, H.B. 2000. *Foundations of behavioural research*. 4th Ed. Sydney: Harcourt College Publishers.
- King'oriah, G. K. (2004). *Fundamentals of Applied Statistics*. Nairobi: The Jomo Kenyatta Foundation.
- Kothari, C.R. (2004). *Research Methodology Methods & Techniques 2nd Edition*. New Delhi, India. New Age International (P) Limited.
- Kvasova, O. (2012). Socio-demographic determinants of eco-friendly tourist attitudes and behaviour. *Tourism Today Management*. 42(1): 55-77.
- Leary, M.R. (2001), *Introduction to Behavioral Research Methods (3rd Ed.)* Allyn & Bacon, Boston, USA.
- Laarhoven, P., & Sharman, G. (1994). Logistics alliances: The European experience. *The McKinsey Quarterly*, 1, 39-49.

Langley, C. J., Allen, G. R., & Dale, T. A. (2005). *Third Party Logistics: Results and Findings of the 2005 Tenth Annual Study*. Retrieved March 13, 2012, from http://www.de.capgemini.com/m/de/tl/Third-Party_Logistics_2005.pdf

Langley, C. J., Allen, G. R., & Dale, T. A. (2012). *2012 Third-Party Logistics Study: The State of Logistics Outsourcing. Results and Findings of the 16th Annual Study*. Retrieved March 8, 2012, from <http://www.3plstudy.com/downloads/2012-3pl-study>

Levy, M., & Weitz, A.B., (1996). *Essentials of retailing*. Boston: Irwin McGraw-Hill.

Lieb, R. C. (2005). The 3PL Industry: Where It's Been, Where It's Going. *Supply Chain Management Review*, 9(6), 20.

Lieb, R. C. (1992). The Use of Third-Party Logistics Services by Large American Man-ufacturers. *Journal of Business Logistics*, 13(2), 29-42.

McGinnis, M. A. (1990). The relative importance of cost and service in freight transpor-tation choice: before and after deregulation. *Transportation Journal*, 30(1), 12-19.

Meixell, M. J., & Norbis, M. (2008). A review of the transportation mode choice and carrier selection literature. *The International Journal of Logistics Management*. 19(2), 183-211.

Min, S., Roath, A. S., Daugherty, P. J., Genchev, S. E., Haozhe, C., Arndt, A. D., & Rich-ey, R. G. (2005). Supply chain collaboration: what's happening?. *The International Journal of Logistics Management*, 16(2), 237-256.

Monczka, R., Trent, R., & Handfield, R. (2005). *Purchasing and Supply Chain Manage-ment*. Mason, OH: Thomson South-Western.

Mugenda, O. M. & Mugenda, A. G. (2003). *Research Methods: Quantitative and Qualitative Approaches*, Acts Press, Nairobi-Kenya

Neuman, W. L. (2009). *Understanding Research*. Boston. Allyn & Bacon Inc.

Neuman, W.L (2000). *Social Research Methods: Qualitative and Quantitative Approaches*. Boston: Allyn and Bacon Publishers.

Porter, E. M. (1985). *Competitive Advantage: Creating and Sustaining Superior Perfor-mance*. United States of America: The Free Press

Porter, E. M., & Kramer, R. M. (2006). Strategy and Society: The Link Between Competitive Advantage and Corporate Social Responsibility. *Harvard Business Review*, 84 (12), 78-92.

Power, M., Bonifazi, C., & Desouza, K.C. (2004). The ten outsourcing traps to avoid. *The Journal of Business Strategy*, 25 (2), 37.

Schwarz, N. & Sudman, S. (1995). *Answering questions; Methodology for determining cognitive and communicative processes in a survey research*. San Francisco: Jossey-Bay Publishers

Selviaridis, K., & Spring, M. (2007). Third party logistics: a literature review and re-search agenda. *The International Journal of Logistics Management*, 18(1), 125-150.

Trent, R. J. (2005). Why Relationships Matter. *Supply Chain Management Review*, 9(8), 5.

Vaidyanathan, G. (2005). A Framework for Evaluating Third-Party Logistics. *Communications of the ACM*, 48(1), 89-94.

Wang, C., & Regan A. C, (2003). Risks and Reduction Measures in Logistics Outsourcing. *Transportation Research Board, TRB 2003 Annual Meeting CD-ROM*.

Whipple, J. M., & Roh, J. (2010). Agency theory and quality fade in buyer-supplier relationships. *The International Journal of Logistics Management*, 21(3), 338-352.

Wulfraat, M. (2012). *Are Grocery Retailers Increasingly Outsourcing Distribution Operations to 3PLs?* MWPVL International Inc. Retrieved March 14, 2012, from [http://www.mwpvl.com /html/retail_3pl_outsourcing.html](http://www.mwpvl.com/html/retail_3pl_outsourcing.html) 56

Yazdanparast, A., Manuj, I., & Swartz, M. S. (2010). Co-creating logistics value: a service-dominant logic perspective. *The International Journal of Logistics Management*, 21(3), 375-403.