INFLUENCE OF LOGISTICS RISK MANAGEMENT PRACTICES ON FIRM PERFORMANCE

A CASE STUDY OF THE NEW KCC KENYA

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ABSTRACT

Logistics plays an important role in today´s business as it can provide competitive advantage to the companies especially in cost and time which belong to the most important factors for competitiveness. Due to turbulences in global markets each company faces uncertainties and unexpected changes that bring about risks that can strongly influence the success of their business. It is especially valid for the industrial enterprises that cover wide spectrum of activities beginning from material procurement to the servicing of supplied products. Successful risk management helps to gain decisive advantages over the competitors. Therefore it is important to understand the principles of risk and risk management and to implement it also into standard procedures in logistic. This study investigated the influence of logistics risk management practices on the performance the New KCC. It was suitable to examine and describe the logistics risk management practices and their effect on operational performance of the New KCC. The research design involved a case study. Data was collected using questionnaire through drop and pick later method. Tables were used to analyze all the four objectives and finally the findings was presented in tables, charts and graphs. The open ended questions in the questionnaire were analyzed qualitatively. The logistics risk management practices studied included; vehicle tracking, use of multiple carriers, Information sharing and route planning. Conclusion and recommendations were made in based on data finding.

Keywords: *Firm Performance, Vehicle Tracking, Multiple Carriers, Information Sharing, Route Planning.*

1.0 INTRODUCTION

Logistics is the part of a supply chain involved with the forward and reverse flow of goods, services, cash, and information (Stevenson, 2009). Logistics encompasses all of the information and material flows throughout an organization. It includes everything from the movement of a product or from a service that needs to be rendered, through to the management of incoming raw materials, production, the storing of finished goods, its delivery to the customer and after-sales service (Ittmenn & King, 2010). The commonality of the recent definitions in logistics is that, it is a process of moving and handling goods and materials, from the beginning to the end of the production, sale process and waste disposal, to satisfy customers and add business competitiveness (Tseng, Yue, & Taylor, 2005). It is the process of anticipating customer needs and wants; acquiring the capital, materials, people,

technologies, and information necessary to meet those needs and wants; optimizing the goods or service-providing network to fulfill customer requests; and utilizing the network to fulfill customer requests in a timely way (Tseng, at el., 2005). Simply, logistics is customer-oriented operation management and it involves the delivery of products or services for the client with assured quality and quantity. For logistics to achieve its objective as per the above definitions the art of management comes in hand and that is why this study will concentrated more on how logistics management influence firm performance.

Starting from the early 1960s, many factors, such as deregulation, competitive pressures, information technology, globalization, profit leverage, contributed to the increase of logistics science in the form we know it today (Ittmenn & King, 2010).The goal of logistics management was to optimize the number, size, and geographical arrangement of plant and warehouse facilities, select transportation methods, and control distribution costs (Mentzer, Soonhong & Bobbitt, 2004). Consequently, logistics management had done an excellent job of managing and moving inventory and the operational aspects of logistics (Mentzer, Flint & Kent, 2004). The importance of logistics and supply chain management to a country's economy had been highlighted time and again in the recent past (Ittmenn & King, 2010). Tseng, Yue and Taylor (2005) stated that due to the trend of nationalization and globalization in recent decades, the importance of logistics management had been growing in various areas.

In recent years, many companies have faced supply chain disruptions which can strongly impact the performance of these organizations. The case of Ericsson is well known on this scenario. After a fire at a Phillips Chips fabric in New Mexico, Ericsson's only supplier, the production was disrupted. This disruption led to a loss of $400 million to Ericsson (Bloomberg News, 2011). Risk occurs because it is not possible to forecast exactly what is going to be the outcome of future events. Even if a company uses the best analyses approaches and software to predict what is going to happen, there is always uncertainty in the future and this brings the risks. The complexity of logistic systems combined with the pressure on the managers brings many risks to the firm. These risks are unexpected events that might disrupt the flow of materials or the planned operations. They can be late deliveries, poor forecast or they can involve rarer scenarios as hurricane or earthquake. Although most of the managers are aware of the existence of risk on the supply chain and its importance, a very low number of companies have outside expertise in assessing the risks on their supply chain, and most of the managers have problems with handling risk effectively (Dittmann, 2014). These discrepancies between knowing its importance and not using the correct approaches to face the risks have many reasons. For some managers, risk management is easy to understand but very difficult to use and handle in real situations. In other cases, companies recommend the usage of these practices to their managers but they fail in providing the necessary training or tools. There are also many companies that do not provide incentives or reward for risk management, which might not stimulate the employee's responsibility for these activities (Dittmann, 2014).

Risk on the logistics consists in every risk that might affect the planned flow of material (Waters, 2011). Supply chain risk management involves four basic steps: risk identification, risk assessment, risk mitigation and risk control (Waters, 2011). Risk management is about identifying operations which involve risk, trying to prevent the failure before it happens, stopping them when they do happen, reducing the negative consequences in these events and trying to recover the operations as planned (Slack, Brandon-Jones and Johnston, 2016). Managers daily face challenges where they need to bring together many data and complex information for taking the best decision. Often this data can be incomplete or fast-changing, which combined with the pressure to always reduce the cost and improve the efficiency makes this process very complex and difficult. Although there are some methods or approaches which summarize the protocol for taking the decision, unfortunately they are often not comprehensive enough, and many times managers must rely on their own feeling or instinct (Waters, 2011).

Logistics is playing an important role to sustain business competency through customer satisfaction as well as reduce cost by process efficiency improvement. Moreover, logistics is linking internal functions and collaborate with external upstream and downstream partners for achieving a synergistic result under its operational constrains. Nevertheless, globalization movement drives enterprise to compromise between customer satisfaction and the complexity of logistics network operations. But, at the same time, the constantly progress of information technology enhanced the capability to handle the complexity driven by market demand.

1.1 Statement of the Problem

Performance measures the effectiveness and efficiency of actions to which customers' requirements are met and how economically a firm's resources are utilized when providing a pre-specified level of customer satisfaction (Neely et al., 2000). In logistic management, there have been relatively few attempts to collate systematically

measures for evaluating the performance of which need be to evaluate the cost and non-cost measure, evaluation of quality, delivery and flexibility, resource and outputs (Gunasekaran, 2001; Toni & Tonchia, 2001). The apparent ability of some logistic systems to recover from inevitable risk events more effectively than others has more recently triggered a debate about supply chain resilience (SCRES). Whereas supply chain resilience management (SCRM) focuses on the identification and management of risks for the logistic system in order to reduce its vulnerability (Juttner, 2005), Logistics risk management strategies aims at developing the adaptive capability to prepare for unexpected events and to respond to disruptions and recover from them (Ponomarov & Holcomb, 2009).

The continuing disintegration and the specialization of operations have made the logistic system vulnerable to disturbances from both inside and outside the system. Many recent events have signaled how vulnerable long and complex chains are. Thus, it is no wonder that the notion of logistic system risk management has been increasingly attracting and receiving attention from academic researchers. The concepts are under development, and many are still without a commonly accepted definition. More research is thus needed and several academics have pointed out clear gaps in current studies. In a more recent article Lavastre, Gunasekaran and Spalanzani (2012) suggest the need for more case studies on how different companies perceive and assess risks in their logistic systems. Sodhi, Son and Tang (2012), in turn, found three gaps in the current literature on supply chain risk management first, there is no clear consensus on the definition second, there is a lack of commensurate research on responses to risk incidents and finally there is a shortage of empirical research in the area. Furthermore, they gave suggestions for narrowing the gaps: more industry-based case studies, event-study-based research, and the development of conceptual knowledge on which to base empirical investigation (Sodhi, Son and Tang, 2012).

Although there are several studies on logistics risk management, only a few of them concern food product logistics in Kenya. Given that logistics risks and, further, the likelihood of supply disruptions are emerging as a key management challenge, the ability to identify the parts of the chain with greater disruption potential is a critical first step in managing the frequency and impact of the disruptions that endanger the security of supply (Trkman and McCormack, 2009). This study therefore aims at examining the influence of logistics risk management strategies on the performance the New KCC Kenya.

1.2 Objectives of the Study

1.2.1 General Objective of the Study
The general objective of the study was to examine the influence of logistics risk management practices on the performance the New KCC Kenya.

1.2.2 Specific Objectives of the Study
1. To examine the influence of vehicle tracking on the performance of the New KCC Kenya.
2. To investigate the influence of using multiple carriers on the performance of the New KCC Kenya
3. To determine the influence of Information sharing on the performance of the New KCC Kenya.
4. To establish the influence of route planning on the performance of the New KCC Kenya.

1.3 Significance of the Study

The findings of this study will enable milk processing companies to understand the important role logistic risk management strategies plays in ensuring profitability and customer satisfaction. They will also be able to understand the factors that lead to logistic failures in the daily sector. The findings of the study will also be beneficial to potential entrants into the business of milk processing. It will give them prior knowledge of what they expect in terms of logistic management failures and how to counter this. The study will also assist those interested in conducting research in these areas. They will be able to find sources of reference as they conduct their research. Institutions of learning will also benefit from the study since it will add to the body of knowledge in these areas. The study will also be important to managers as it will help in making sound decision for their various companies so as to be able to satisfy their customers, make available quality products, timely delivery, and at cost affordable to customers. It will also help managers to understand the factors that lead to logistic system failures and how to tackle them. The findings of this study will be used as a benchmark for dairy firms in Kenya. The findings of this study will also enable firms to prevent logistic system disruptions by better risk management. They will be able to understand the factors of logistic system failures and customer satisfaction and how to address them. The

government of Kenya will benefit from this study through transfer of knowledge on dairy issues and logistic system issues in this study which can be used to make policy decisions on dairy firms.

This study will also help the government of Kenya to pay more attention to logistic system issues by enacting laws that will make dairy firms more supportive and because heightened logistic system unity of corporate governance will make them more directly responsible for earnings forecasts, build more flexibility into the supply chain, increase the accuracy of demand forecasts, improve their risk-management strategies, and invest in available technologies that can provide early-warning of supply problems.

1.4 Scope of the Study

The study will seek to establish the influence of logistics risk management strategies on firm's performance. The study will specifically seek to establish the impact that distribution and reverse logistics have on performance at the new KCC. The study will be limited to the new KCC and targeting to collect information from employees in involved in the logistic department.

1.5 Conceptual Framework
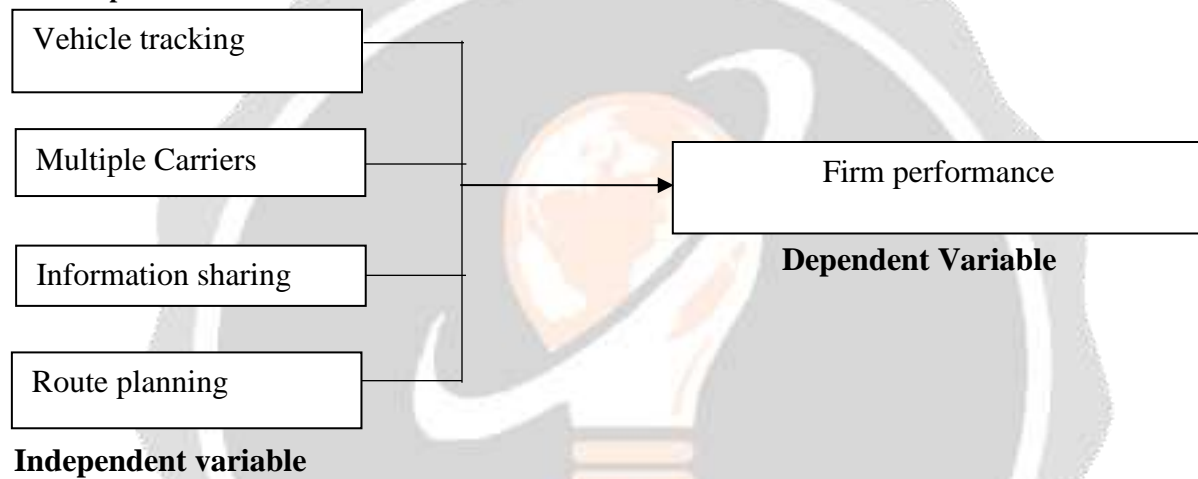
Figure 1.1. Conceptual Framework

2.0 RESEARCH METHODOLOGY
2.1 Research design

A research design is a presentation of the plan, the structure and strategy of investigation, which seeks to obtain or answer various questions. It is a detailed plan for how research study was conducted according to the data required in order to investigate the research questions in an economical manner. It is the framework that guided the collection and analysis of the data.

The researcher will carry out a descriptive research using quantitative data. Use of descriptive research method is to enable the researcher become more familiar with the situation, acquire a new understanding about the situation, and formulate specific research problem or hypothesis.

Descriptive design method was used in this study. Descriptive research design is aimed at obtaining data that defines the physiognomies of the topic of interest during a research (Hair et al., 2007). The descriptive method will help in establishing priorities specific to areas under research. The research design is appropriate because it enables the researcher to examine the effects of logistic risk management practices (dependent variables) affecting organizational performance (independent variables) in institutions with a focus on the New KCC.

In this study, a descriptive research design was adopted. Saunders, Lewis and Thornhill (2012) state that descriptive studies give a clear picture of the phenomenon a researcher wishes to collect data. However data collected in descriptive studies requires researchers to draw conclusions from the data collected through data evaluation and

synthesis skills. Descriptive study is appropriate for this study as it seeks to identify and explain variables that exist in a given scenario. It allows the collection of data and formation of a distribution of the occurrence of a specific phenomenon or involves interaction of two or more variables, and is a versatile method across various disciplines (Cooper and Schindler, 2011). This method is therefore considered appropriate as it provides information that responds to the research questions.

2.2 Target population

Population in statistics is the specific population about which information is desired. A population is the aggregate of all cases that conform to some designated set of specification (Chein, 1981). It is the unit of study and is a total collection of elements (Emory, 2005). The population for this study were the logistic managers at the new KCC. The New KCC has 18 branches according to their portal. The logistic managers were targeted as they are conversant with all the logistic practices that their branches engage into. There are therefore a total of 18 logistic managers in all branches.

2.3 Sampling Frame

A sampling frame describes a list of all population from which a sample is selected (Render, Stair and Hanna, 2012). It is a list of all those people or items within a population that can be Co-operative KCC of Kenya has several departments; therefore, it was impossible to issue questionnaires to all the staff in those departments. The study targeted the logistic managers of the New-KCC. According to their portal the New-KCC has targeted 18 logistics managers in the 18 branches in Kenya.

2.4 Sample and Sampling Technique

2.4.1 Sample Size

Sampling is a statistical procedure that is concerned with the selection of the individual observation; it helps us to make statistical inferences about the population. A sample is a smaller, manageable version of a larger group. Samples are used in statistical testing when population sizes are too large for the test to include all possible members or observations. A sample should represent the whole population and not reflect bias toward a specific attribute (Saunders *et al.*, 2019). The researcher therefore will use a sample size of 11 respondents forming 60 per-cent of the entire population. A sample size of 10% and above of the target population is considered adequate for analysis and reporting as stated by (Mugenda and Mugenda, 2003).

2.4.2 Sampling Technique

This research used purposive sampling technique. The sample was selected involving a subgroup in the population are that is well conversant with the study subject.

2.5 Data collection instrument

Research instruments are the data collection tools that help the researcher realize the purpose of the study. The most commonly used tools in primary data collection instruments comprise of interview guides, questionnaires, voice recording gadgets, video recorder. In order to answer a combination of 'what' and 'why' questions, case studies generally involve a mix of quantitative (i.e., surveys, usage statistics, etc.) and qualitative (i.e., interviews, focus groups, extant document analysis, etc.) data collection techniques. Most often, the researchers analyze quantitative data first and then use qualitative strategies to look deeper into the meaning of the trends identified in the numerical data. For this reason the researcher used a questionnaire containing open ended and close ended items. The questionnaire contains 3 sections. Section A will address respondents' basic information. Section B will address the study objectives while section C represents the relationship between the logistic risk management practices and organization performance. The questionnaire was the best instrument because it is cheap and easy to administer and results in data is suitable for analysis as designed for the study. They also offer the respondent time and privacy to fill in at their convenience.

2.6 Data collection procedure

Data collection procedures refer to all the steps, materials, personnel, period and so on incorporated together in order to realize the information required to fulfil the purpose of the study (Donald, 2006). The primary data was collected using a structured questionnaire to guide the respondents. The researcher started by introduction using the

introductory letter. They were administered to the individual heads of departments in head branches. The researcher personally delivered the questionnaires to the respondents. The researcher then combined the 'drop and pick on the spot' and 'drop and pick later' techniques depending on the respondent. A period of one week was given for data collection after which those who would not have completed were given one more week for completion. These was collected and sorted ready for analysis.

2.7 Pilot test

The Reliability and Validity of each instrument was ascertained through a discussion with the logistics professional after which necessary adjustments were made to the research instrument before conducting a pilot study which was undertaken to identify elements of study population and unit of analysis. During the study, draft questions were pre-tested to remove ambiguity and achieve high degree precision. On the other hand, questions which will not yield the required data was discarded.

2.8 Data Processing and Analysis

Data processing is the process of developing answers to questions through the examination and interpretation of data. The basic steps in the analytic process consist of identifying issues, determining the availability of suitable data, deciding on which methods are appropriate for answering the questions of interest, applying the methods and evaluating, summarizing and communicating the results (Mugenda and Mugenda, 2003).

The researcher edited the completed questionnaires for completeness and consistency. Data clean-up followed; this process involved editing, coding, and tabulation in order to detect any anomalies in the responses and assign specific numerical values to the responses for further analysis. Data analysis was coded and entered to Statistical Package for Social Sciences (SPSS Version 22.0) program. The study adopted regression analysis. Regression analysis was used to come up with the model expressing the relationship between the independent variables (Benchmarking, collaboration, organization leadership and flexibility) and the dependent variable (product reputation and retention or relationship continuation).

Data reporting ought to be presented in both textual and visual formats (such as diagrams, maps, graphs, tables). Organizing and displaying the data in visual formats is useful in identifying trends and forecasts (Mugenda and Mugenda, 2003). The findings were presented using tables, pie charts, and graphs for further analysis and to facilitate comparison, while explanation to the table and graphs were given in prose. This generated quantitative reports through tabulations, and measure of central tendency (means and standard deviations).

3.0 RESULTS AND DISCUSSION

3.1 Response Rate

This research study targeted 11 respondents. The researcher managed to collect 9 questionnaires from the respondents.
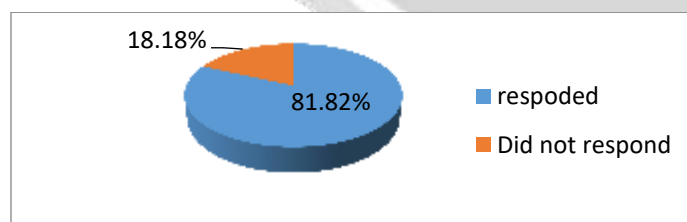

Figure 3.1: Response Rate

The Figure 3.1 represents the percentage of the responses in ratio of the entire questionnaires issued. A response rate of 81% and above of the targeted response is considered adequate for analysis and reporting (Mugenda and Mugenda, 2003).

3.2. Demographic Information

3.2.2 Education Level
Regarding the level of education of the respondent, the research findings indicated that 76% were degree holders, 24% had masters degrees while none was a PhD holder.
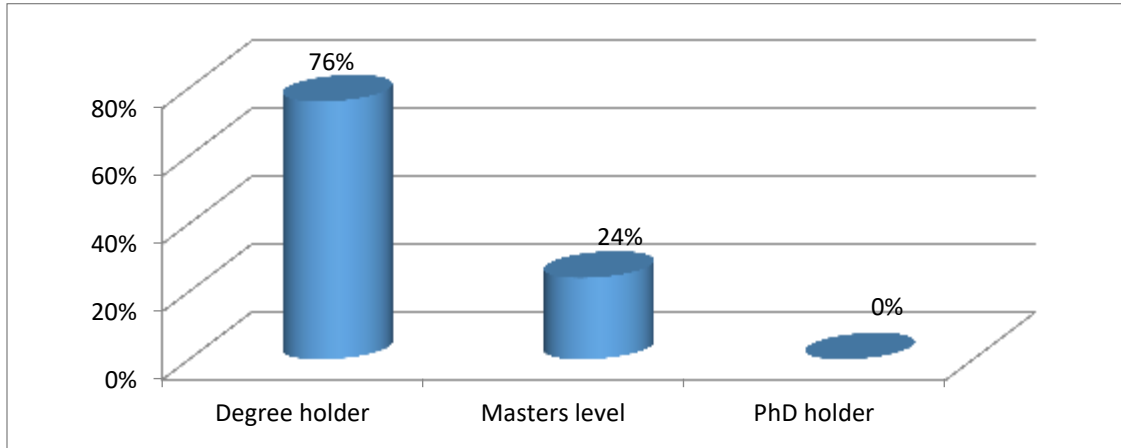
Figure 3.2: Level of Education

3.2.3 Years of Working
Regarding the duration the respondent have worked at the New KCC Kenya, The study found that majority 67 percent of the firm managers had worked at the firm for between 6-10 year while the rest 33 percent had worked at the firm for between 10-15 years.
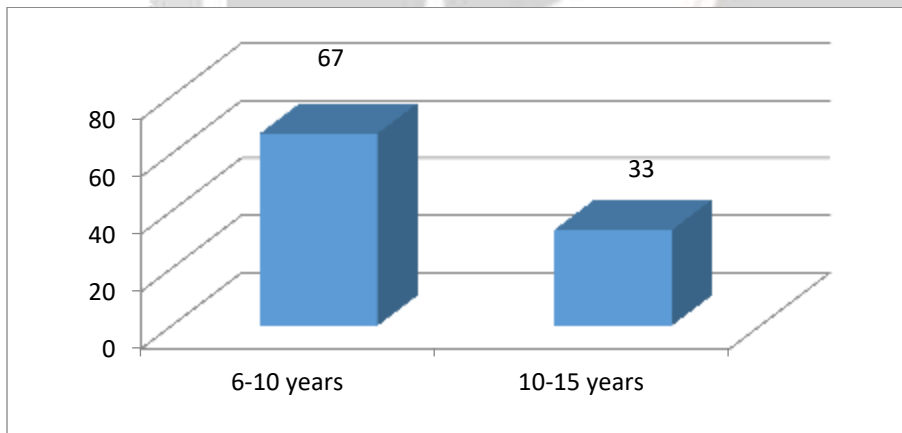
Figure 3.3: No of years worked at the New-KCC Kenya.

3.3 Influence of Vehicle Tracking on Performance

The study aimed at determining the effect of vehicle tracking on organization performance at the new KCC Kenya.

Table 3.1 Influence of Vehicle Tracking on Performance

Statement	Mean	Std. Deviation
The firm has very small aperture terminal	4.3333	.50000
The firm has installed a tracking system	4.000	0.00000
The firm uses electronic data interchange	3.6667	.50000

The firm uses Enterprise resource planning	4.0000	0.00000
The firm conducts Distribution requirement planning	3.6667	.50000
The firm has adopted usage of radio frequency identification	3.8889	.33333
The firm has adopted web based tracking	3.8889	.33333
The firm uses voice recognition technology	3.8889	.33333
The firm has adopted geographical information system	3.8889	.33333
automated guided vehicle system	3.8889	.33333
The firm has automated inventory tracking system	3.8889	0.00000
The firm has geographical positioning system	3.8889	.33333

As seen from the table 3.1, among the respondents who participated in the study the findings established that the firm has very small aperture terminal as depicted by a mean of 4.3333. The study also confirmed that the firm had installed a tracking system, uses Enterprise resource planning and has automated inventory tracking system as represented by a mean of 4.0. The study also indicated that the firm had adopted usage of radio frequency identification, adopted web based tracking, and uses voice recognition technology, adopted geographical information system, automated vehicle tracking system and a geographical positioning system as indicated by a mean of 3.8889 of the respondents. The study further showed that the firm uses electronic data interchange and conducts Distribution requirement planning as represented by a mean of 3.6667 of the respondents. Hsieh, Yu, Chen & Hu, (2006) note that Vehicle tracking is a way to improve company efficiency and in effect, increase profitability, especially in the business of large vehicle fleets The tracking system is the enabling technology, and is the key to release the value trapped in asset management.

3.4 Influence of Multiple Carriers on Performance

The study sought to determine the effect of vehicle tracking on organization performance at the new KCC Kenya.

Table 3.2: Influence of Multiple Carriers on Performance

Statement	Mean	Std. Deviation
Our company uses Multiple carriers to reduce costs and achieve solid return on investment from investment in a multi-carrier approach and supporting technology.	4.0000	0.00000
Our company uses Multiple carriers to benefit from process standardization and leverage of a unified technology platform to drive shipping decisions, provide track and trace capabilities across the enterprise, and use shipping data to improve carrier negotiations and improve shipping strategies.	4.0000	0.00000
Our company uses Multiple carriers to avoid paying significantly higher rates for non-standard shipping units.	3.8889	.33333
Our company uses Multiple carriers to benefit from rapidly growing ecommerce business as vast majority of web-based orders were shipped parcel hence cutting cost	4.0000	0.00000

Among the respondents who participated in the study the findings in Table 3.2 established that company uses multiple carriers to reduce costs and achieve solid return on investment from investment in a multi-carrier approach and supporting technology, the firm company uses Multiple carriers to benefit from process standardization and leverage of a unified technology platform to drive shipping decisions, provide track and trace capabilities across the enterprise, and use shipping data to improve carrier negotiation and improve shipping strategies and that the company uses Multiple carriers to benefit from rapidly growing ecommerce business as vast majority of web-based orders were shipped parcel hence cutting cost as depicted by a mean of 4.0. Further the study found out that the firm uses multiple carriers to avoid paying significantly higher rates for non-standard shipping units as represented by a mean of 3.8889 of the respondents. The impact of economies of scope (also known as network effects) and economies of scale on carrier choice are factors that are often ignored in career selection. Economies of scope are readily apparent relative to the use of transportation equipment after it is emptied (Mentzer, 1986). Economies of scale, on the other hand, are a concern relative to shipment size. There is a strong incentive to ship in full truckloads to minimize the cost associated with the considerable capital expenditure for equipment.

3.5 Influence of information sharing on Performance

Table 3.3 Influence of information sharing on Performance

Statement	Mean	Std. Deviation
There Smooth information flow to all logistics functions at our firm	4.0000	0.00000
Our firm does Practice internal information sharing	3.8889	.33333
Our firm has Invested on information communication systems	4.0000	.50000
Our firm has achieved accurate demand forecasting	3.7778	.44096
Our firm has achieved timely respond to customer references	3.5556	.52705
Our firm has achieved smooth flow of materials and products	3.8889	.33333
Our firm uses electronic order processing	3.8889	.33333
Our firm uses electronic customer feedback	3.7778	.44096

Among the respondents who participated in the study the findings in Table 3.3 established that the firm has a smooth information flow to all logistics functions at the firm and it has invested on information communication systems as depicted by a mean of 4.0. The firm also practice internal information sharing, has achieved smooth flow of materials and products and uses electronic order processing as represented by a mean of 3.8889. The further revealed that the firm has achieved accurate demand forecasting, and uses electronic customer feedback as indicated by a mean of 3.7778. Further, the study revealed that the firm has achieved timely respond to customer references as represented by a mean of 3.5556. Stevenson and Spring, (2007) concurred that, the flow of accurate and real time information in logistics was considered very important to the flow of materials. This information explosion had enabled logistics to become an important weapon in the firm's arsenal to add value to the bottom line (Close et al., 2005). Information sharing was a key to success of logistics performance (Whipple et al., 2002).

3.6 Influence of Route Planning on Performance

Table 3.4 Influence of Route Planning on Performance

Statement	Mean	Std. Deviation
Our company takes maps out every single stop to ensure milk is collected in all collection centers	4.0000	0.00000
Our company calculates the amount of time it takes to visit each stop on the route to ensure efficient use of collection vehicles	4.1111	.33333
Current vehicle scheduling practices have improved transportation of materials and produce	4.0000	0.00000
Our company has a system in place for managing its fleet	3.6667	.50000
Our company uses rout planning to figure out which routes will allow us get to all our collection centers in the shortest amount of time possible	3.8889	.33333
Our companies uses Google Maps for traffic updates to helpful in rout planning and avoid any transport risk.	3.8889	.33333
Our companies make quick route adjustments if necessary	3.8889	.33333

Among the respondents who participated in the study the findings in Table 3.4 established that the company calculates the amount of time it takes to visit each stop on the route to ensure efficient use of collection vehicles as illustrated by a mean score of 4.111. The study also found out that the firm maps out every single stop to ensure milk is collected in all collection centers and has a current vehicle scheduling practices that improved transportation of materials and produce as depicted by a mean score of 4.0. The study also revealed that the firm uses rout planning to figure out which routes will allow get to all our collection centers in the shortest amount of time possible, uses Google Maps for traffic updates to helpful in rout planning and avoid any transport risk and makes quick route adjustments if necessary as indicated by a mean score of 3.8889. The study further indicated that the firm has a system in place for managing its fleet as depicted by a mean score of 3.6667.This concurs with Knolmayer et al, (2002) who conclude that Route planning systems bring many advantages to customers (improved service, increased reliability, reducing delivery times, quick response to special requests), management (increased transparency, independence on planner's intuition, simpler training of new employees, reliable data for decisions) or schedulers (reduction of routine tasks, less errors).

3.7 Firm Performance

Table 3.5 Firms Performance

Statement	Mean	Std. Deviation
Increase profits	4.0000	0.00000
Increase market share	4.0000	0.00000
Increase in price of dividends	3.8889	.33333
Lower raw material cost	3.8889	.33333
Reduce environmental expenses	3.8889	.33333
Improve the reuse, recycling and remanufacturing opportunities	3.7778	.44096
Decrease of consumption for hazardous and toxic materials	4.0000	0.00000
Decrease the frequency for environmental accidents	4.1111	.33333
Reduce environmental burdens	3.8889	.33333
Improve customer loyalty	3.8889	.33333

Among the respondents who participated in the study the findings in Table 3.5. The study established that Logistic Risk Management Practices decreases the frequency for environmental accidents as depicted by a mean score of 4.111. The study showed that Logistic Risk Management Practices increases profits, increases market share and decreases of consumption for hazardous and toxic materials as indicated by a mean of 4.0. The study also indicated that Logistic Risk Management Practices leads to increase in price of dividends, lower raw material cost, reduced environmental expenses, reduced environmental burdens and improved customer loyalty as depicted by a mean of 3.8889. The study further indicated that Logistic Risk Management Practices leads to improved reuse, recycling and remanufacturing opportunities as indicated by a mean score of 3.7778. According to Kopczak and Johnson (2003) a firms Productivity is commonly defined as a ratio between the output volume and the volume of inputs. In other words, it measures how efficiently production inputs, such as labour and capital, are being used in an economy to produce a given level of output.

4.0 SUMMARY, CONCLUSIONS AND RECOMMENDATIONS
4.1. Summary and Findings
The study found that the firm has very small aperture terminal, the firm had installed a tracking system, uses Enterprise resource planning and has automated inventory tracking system. Additionally the study found that the firm had adopted usage of radio frequency identification, adopted web based tracking, and uses voice recognition technology. The results indicated that the firm uses multiple carriers to reduce costs and achieve solid return on investment from investment in a multi-carrier approach and supporting technology, the firm company uses Multiple carriers to benefit from process standardization and leverage of a unified technology platform to drive shipping decisions, provide track and trace capabilities across the enterprise and uses shipping data to improve carrier negotiation and improve shipping strategies and that the company uses Multiple carriers to benefit from rapidly growing ecommerce business as vast majority of web-based orders will be shipped parcel hence cutting cost. The New-KCC Kenya has a smooth information flow to all logistics functions at the firm, has invested on information communication systems, practice internal information sharing and has achieved smooth flow of materials and products. The study further found that the firm uses electronic order processing, has achieved accurate demand forecasting and uses electronic customer feedback. The study found out that the company calculates the amount of time it takes to visit each stop on the route to ensure efficient use of collection vehicles, the firm maps out every single stop to ensure milk is collected in all collection centers and has a current vehicle scheduling practices that improved transportation of materials and produce. The study found that the firm had reported decreased the frequency for environmental accidents, increases profits, increased market share and decreases of consumption for hazardous and toxic materials as a result of the implementation of logistic risk Management practices.

4.2 Conclusions
The study concluded that the firm has employed vehicle tracking practices like use very small aperture terminal, installation of a tracking system, use of enterprise resource planning and automated inventory tracking system. Additionally the firm also uses radio frequency identification, web based tracking, and voice recognition technology. The study concluded that the firm uses multiple carriers to reduce costs and achieve solid return on investment from investment in a multi-carrier approach and supporting technology, the firm company uses Multiple carriers to benefit from process standardization and leverage of a unified technology platform to drive shipping decisions, provide track and trace capabilities across the enterprise and uses shipping data to improve carrier negotiation and improve shipping strategies and that the company uses Multiple carriers to benefit from rapidly growing ecommerce business as vast majority of web-based orders will be shipped parcel hence cutting cost. The study

concluded that the New-KCC Kenya has a smooth information flow to all logistics functions at the firm, has invested on information communication systems, practice internal information sharing and has achieved smooth flow of materials and products. The study further concluded that the firm uses electronic order processing, has achieved accurate demand forecasting and uses electronic customer feedback. The study concluded that the company calculates the amount of time it takes to visit each stop on the route to ensure efficient use of collection vehicles, the firm maps out every single stop to ensure milk is collected in all collection centers and has a current vehicle scheduling practices that improved transportation of materials and produce. The study concluded that the firm had reported a decrease in the frequency for environmental accidents, increases profits, increased market share and a decrease of consumption for hazardous and toxic materials as a result of the implementation of logistic risk Management practices.

4.3 Recommendations

Based on the finding of this study, the research recommends for more use of electronic data interchange (EDI). In supply chain management, trading partners need to constantly communicate with each other; the communications are usually recorded within their systems for further processing. For example, when a supplier receives an order from a customer, he/she replies with the confirmation and/or modifications. This interaction needs to get into the customers' systems so that the production planning can be accurate, and promises to these customers can be made. Receiving these changes by phone or email, and then having an operator key in the data is a not a viable option. Unfortunately, this method is very time consuming and is highly prone to human error. Beyond that, any lapses in communication anywhere within this process could lead to wrong future planning. This is where EDI is important. If a company implements EDI for communication with its trading partners (such as its suppliers, logistics providers, warehouse operators, customers, etc.), the supply chain gets integrated electronically to all the users in the system. The New-KCC Kenya should therefore enhance the use of electronic data interchange. Based on the finding of this study, the research recommends that the firm improves on choosing a multiple carrier option that helps reduce cost. Choosing the right pricing model, carrier and carrier service is unique to each order, depending on variables like delivery address, cubic dimensions, weight and delivery speed required. Based on the finding of this study, the research recommends for the firm to improvement in responding to customer references. Recognizing and responding to your customers' comments, opinions, and needs has both immediate and long-term impacts on your organization. Showing customers the courtesy of an instant and sincere reply is a step forward in resolving issues immediately, and promptly mitigating any potential damage. Always respond quickly with an earnest attempt to resolve any customer issues. Based on the finding of this study, the research recommends that the firm need to intensify the use of a system to manage fleet effectively. The firm with the goal of minimizing the lead time between receipt of an order and delivery of goods, reducing the opportunity cost that accompanies fluctuations of supply and demand and maximizing the profit associated with the sale of goods. The firm should make a point to conduct logistics functions in-house in order to gain a competitive advantage. In general, however, there is a growing trend toward use of modern fleet management as a way to save time and reduce costs.

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