

LOGISTICS STRATEGIES AND PERFORMANCE OF FIRMS IN KENYA.

A CASE OF FIRMS IN NAIROBI CITY COUNTY

Email: bonifacekoskei23@gmail.com

Mobile number: +254706121690

Address: 62000-00200 Nairobi, Kenya

Bonface Kibet Koskei & Muricho Michael Wanjala.

Department of Procurement and Logistics, Jomo Kenyatta University of Agriculture and Technology, Kenya

ABSTRACT

Logistics firms represent the backbone of growth in developing economies. However, despite the critical role they play, the performance of Kenyan logistics firms is weak and many fail within 5-10 years from inception. Intense competition under the global economic framework requires logistics firms to reconsider their competitive strategies vis-à-vis their rivals. Logistics strategies are used by enterprises as formidable strategic variables to outstrip the competition and have become an essential means for the firms to improve their performance and to maintain its effectiveness on the market. The purpose of this study therefore was to investigate the influence of logistics strategies on firms' performance. Specifically the study seeks to: establish the influence of strategies in logistics on competitiveness of logistics firms in Kenya. The study was based on the strategic diffusion theory. Descriptive survey research design was adopted in the study. The target population was 972 employees drawn from the 2016 top one hundred logistics firms in Kenya. A sample size of 98 employees was selected by use of stratified random sampling. Primary and secondary data was collected via a self-administered questionnaires and document schedule respectively. Validity and reliability of the instrument was determined by expert judgment and internal consistency measure respectively. The collected data was processed and analyzed using SPSS software and descriptive statistics generated. The study was of value to researchers and scholars, as it formed a basis for further research as well as building on the existing body of knowledge on logistical innovations. The study has helped in determining and explaining the influence of logistics strategies on firms' performance in Kenya. The results of the study had a significant managerial and theoretical implications. The findings of the study indicated a positive relationship between the independent and the dependent variables. Cross docking reported a positive response with a mean of above 3.4. Reverse logistics was also another variable that gained a significantly positive response with a mean of above 3.7. The study found that reverse logistics influenced operational performance of a company to a great extent. Other variables such as order consolidation and block chain technology gained a positive response with mean of each above 3.7.

Keywords: Firm Performance, Logistics Strategy, Cross docking, Order consolidation, Reverse Logistics and Block chain Technology.

1.0 INTRODUCTION

Firms, regardless of size, location and type of economy, face overwhelming competitive phenomenon (Mangy et al., 2013). Logistics strategy is the set of guiding principles driving and ingrained attitudes that help to coordinate goals,

plans and policies between partners across a given supply chain (Shirley et al., 2013). Llewellyn, (2009). Logistics strategies include: Order consolidation, a push for cross docking and Block chain technology.

Logistics firms serve as a breeding ground for entrepreneurs and a provider of solutions to address the problems of unemployment and promoting market growth. As such, they represent the backbone of growth in most economies (Valery and Mazarin, 2015). In the United States of America, logistics firms with fewer than 500 employees are the backbone of U.S. economy. They make up 99 percent of all firms, 34 percent of export revenue, 40-60 percent to Gross Domestic Product (GDP), and generate 65 percent of net new private sector jobs (Seem et al., 2014).

In China, logistics firms have played an active role in economic growth. 99.6% of enterprises in China are logistics firms. These companies account for 59% of GDP, 60% of total sales, 48.2% of taxes, and about 75% of employment in urban areas. (Seem et al., 2014). In economic powerhouses such as South Africa, Egypt and Nigeria the logistics firm sector is estimated to contribute over 70 percent in employment and 30-40 percent contribution to GDP but contribute less than four percent to export earnings (Nova, 2013). Kenya as many other economies is dominated by a large proportion of logistics firms (KNBS, 2015). The survey conducted by the Kenya Central Bureau of Statistics, (2015) indicates that logistics firms constitute 60% percent of businesses, 7 percent of Kenya's Gross Domestic Product, as well as create 75% of all new jobs. Due to the large contribution of the sector to the economy, competitiveness and development of logistics firms must be sustained over time (Jutland et al., 2002).

In order to increase their chances of survival, there are increased deliberate policies, legislations and other initiatives by both the government and the private sectors, aimed at nurturing logistics firms as engines of economic growth and employment creation (Nova, 2013). This has been done through implementing business education programs, award programs and increasing logistics firm's access to loans and government incentives (Rothstein, 2015). Among such initiatives, is the hype on Awards and Award Schemes that seek to rank companies according to particular pre-set performance criteria such as growth rate, consumer satisfaction, employee satisfaction, profitability, corporate governance, amongst others (Go, 2013)? One of the latest entrants was The KPMG Top one hundred logistics firms. KPMG Kenya ranks Kenyan firms, which have a turnover in the range of KHz 70 million and KHz 1 billion and have audited accounts for the three financial years (KPMG, 2012).

The Kenya Economic Survey (2015) indicates that the performance of Kenyan logistics firms is weak as evidenced by the decline in growth rate from 5.4% in 2011 to a 4.3% in 2015. Logistics firms face many challenges such as struggle to attract capital to fund their endeavors, constraints to adopt new technologies, poor financial management, low productivity, incapacity to face competition from imports, harsh regulatory policies, inadequate business know-how and linkages with large enterprises, gender inequality, limited access to information, impact of HIV/AIDS pandemic and unsatisfactory occupational health and safety standards. These constraints have not been well addressed resulting in a weak base for industrial take-off and sustainable development (KNBS, 2015). Such decline in performance leads to unemployment in Kenya, which as a result leads to social injustices and crime (KNBS, 2015). The survival and development of logistics firms therefore was largely determined by the ability of the owners to strategize or adopt favorable strategies (Schumpeter, 1934). Kenya as an economy has been hailed as a regional financial hub because most of its sectors have made some remarkable strides towards logistics strategies. However, it should be noted that there is still enormous untapped strategies that are potential that can enhance the financial competitiveness of Kenya's logistics firms by offering an inexpensive and direct way to produce, process, and market goods and services (Mangy et al., 2013).

Despite the potential for logistics strategies to facilitate overall competitiveness for logistics firms, the extent to which this has affected firm competitiveness of logistics firms is yet to be established. Little attention has been given to the possible impact of various dimensions of firm strategies on firm competitiveness of enterprises in Kenya (Gateau, 2011). This research therefore seeks to investigate the influence of logistics strategies on firms' performance in Kenya. The findings of this study was of critical value to the government, as it was expected to facilitate an understanding of the rate of logistics strategy in the sector (Kothari, 2004). The government will also find the study a basis for formulating new policy regulations that could favor the level of strategies by logistics firms in Kenya. Logistics strategies are touted as the way to improve financial inclusion to drive economic development towards attainment of vision 2030. It is envisaged that the findings and recommendations of this study will assist policy makers and formulators in development of relevant policies and legal framework to enhance logistics strategies while mitigating the risks that have resulted due to the same (Rogers, 2003).

1.1 Statement of the Problem

Recently all over the world logistics firms have experienced a down turn in their performance. In the last five years many of these companies are not able to accomplish their target and this has been attributed to the poor approach of handling logistics operations (Keith,2017). (Bind, 2015)concluded that 15 out of 20 firms were incurring unnecessary costs which resulted to high pricing of services and products. This ultimately made them not to compete favorably with other companies or logistics firms that had handled logistics operation in a better approach. It was also discovered that one of the main factors that were making this logistics firms to face challenges was due to the fact that they were running the logistics function without meticulous strategies.

Murray, (2015) found out that 46% of the logistics firms had implemented logistics strategies that had mixed results. They had reduced profit margins and this was not clear if indeed they had been influenced by logistics strategy they had put in place. Some of the organizations that had adopted and implemented logistics strategies had their sales volumes at 30% but after fully utilizing the logistics strategies, their sales volume increased to 75% (Shown, 2016). Grieve, 2016 conducted a research that shockingly revealed that 59% of businesses do not have a documented logistics yet. Of those businesses most believe their business performance suffers as a consequence. Without an effective strategy in place you won't know whether your logistics is underperforming and impacting on your business bottom line. The right logistics strategy drives reduced cost, better customer service and improved profits. It is due to the above mixed results on the importance of logistics strategies to logistics firms that there is the need to carry out research on the influence of logistics strategies on firms performance.

1.2 Objectives of the Study

1.2.1 General Objective of the Study

The purpose of this study was to examine the influence of logistics strategies on performance of firms in Kenya.

1.2.2 Specific Objectives of the Study

- i. To establish the influence of cross docking on performance of firms in Kenya.
- ii. To determine the influence of order consolidation on performance of firms in Kenya.
- iii. To investigate the influence of reverse logistics on performance of firms in Kenya.
- iv. To examine the influence of block chain technology on performance of firms in Kenya.

1.3 Significance of the Study

The findings of this study shall be of value to researchers and scholars, as it will guides in identifying the knowledge gaps in this field and provide systematic ways to close the gaps reported through further research. Researchers who wish to study the area of logistics strategies in any sector shall be made aware of the key logistics strategic variables such as process and market strategies and their influence on financial competitiveness. The researcher and the academic community may use the study for further studies on the logistics firms subsector. The findings of this study will be of critical value to the government, as it will be expected to facilitate an understanding of the rate of logistics strategy in the sector. The government will also find the study a basis for formulating new policy regulations that could favor the level of strategies by logistics firms in Kenya.

Logistics strategies are touted as the way to improve financial inclusion to drive economic development towards attainment of vision 2030. It is envisaged that the findings and recommendations of this study assist policy makers and formulators in development of relevant policies and legal framework to enhance logistics strategies while mitigating the risks that have resulted due to the same.

This study will act as a guide for logistics firms on the current and emerging logistics strategies that are appropriate in order to meet the changing customer needs and to close the existing gaps. Enterprises and other forms of businesses will be enabled to understand the various logistics strategies they will need in order to satisfactorily meet customer needs, by extension maintain, and expand their market size. Shareholders will also be able to know how logistics strategies affect financial competitiveness of their businesses. This will act as a basis upon which improvement through logistics strategy will lead to increasing market share and profitability which may translate into greater dividend payouts. This study will enlighten investors on the recent logistics innovation trends in the logistics firms sector in Kenya.

The findings of this study will be of value to researchers and scholars, as it will guide them to identify the knowledge gaps in this field and provide systematic ways to close the gaps reported through further research. Researchers who wish to study the area of logistics strategies in any sector will be made aware of the key logistics strategic variables such as process and market strategies and their influence on financial competitiveness. The researcher and the academic community may use the study for further studies on the logistics firms subsector

1.4 Scope of the Study

The study was confined to logistics strategies and its relationship with financial competitiveness of top one hundred logistics firms in Kenya. The study domain was guided by process and market strategies that have been utilized by the top one hundred logistics firms and the reinforcement influence of capital intensity. The research will further focus on the top one hundred logistics firms in Kenya, which participated in the KPMG annual surveys in 2016. The target population was limited to employees of the KPMG’s 2016 top one hundred logistics firms. The study was conducted between May and September 2018.

1.5 Conceptual Framework

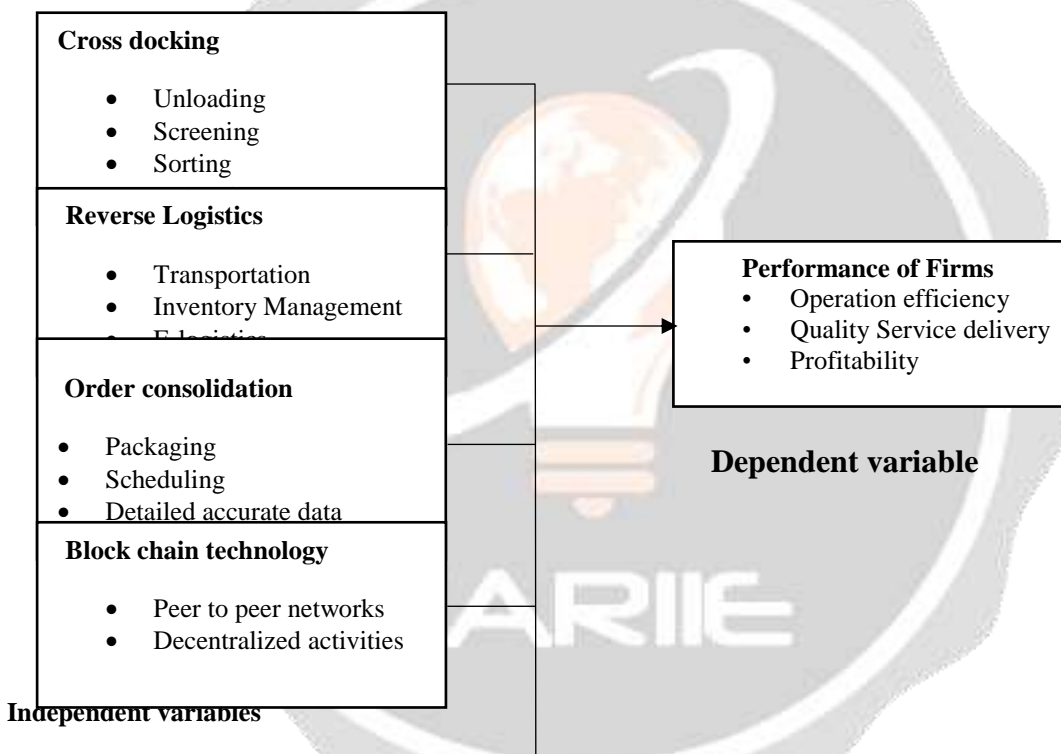


Figure 1.1. Conceptual Framework

2.0 RESEARCH METHODOLOGY

2.1 Research design

The research adopted a descriptive survey research design. According to Myers et al., (2010) a descriptive survey research design is concerned with the present and attempts to determine the status of the phenomenon under investigation. A descriptive survey research design describes people responses to questions about a phenomenon or situation with aim of understanding respondent’s perceptions from which truism is constructed (KIM, 2009). This was based on the constructivist epistemology which holds that, reality is what respondents generally perceive to be (Myers et al., 2010). This design therefore, was particularly useful as the study sought to establish the perception of respondents in reference to influence of logistics strategy on the firms performance. Descriptive research design was also useful for applying rigorous statistical analysis in studying a large number of variables using a large sample size (Fowler, 2013). This was suitable in the study owing to the large population of logistics firms targeted. According to Horn et al., (2011) a descriptive research involves collecting data and analyzing it in order to describe the phenomenon under investigation. It also involves gathering data that describes events and organizes, tabulates,

depicts and describes the data. Descriptive studies portray the variables by answering who, what and how questions (Myers et al., 2010). This design is justified since the study sought to collect, verify and interpret evidence to establish facts that address the relationship between logistics strategy and the firm's performance in Kenya. The design enabled collection of quantitative data and allow the researcher to identify patterns of association among the variables in order to confirm the overall interpretation of the relationships between the study variables.

2.2 Target population

Ritchie et al., (2013) define a population as any finite or infinite collection of individual elements. Bhattacharjee (2012) describes a population as the entire collection of 'things' in which we are interested. According to Denscombe (2014), a population refers to all items in any field of inquiry and is also known as the 'universe'. The target population of the study comprised of 972 employees drawn from KPMG Top 100 logistics firms that participated in the 2016 survey. The feedback from the respondents covering the period enabled the researcher to capture the most recent and conclusive data and to provide sufficient variables to assist in establishing the effect of logistics strategy on firms performance in Kenya. The KPMG Top one hundred logistics firms are logistics firms that have been assessed according to the criteria set by KPMG. The logistics firms are stratified according to their respective sectors.

2.3 Sample and Sampling Technique

2.3.1 Sample Size

According to Kothari (1990) sampling is the process by which a relatively small number of individuals, objects or events is selected in order to find out something about the entire population from which it was selected. According to Kothari (2003) an optimum sample is the one that fulfills the requirements of efficiency, representativeness, reliability and flexibility. This sample should range between 10% and 30%. According to Mugenda and Mugenda (2013), when the study population is less than 10,000, a sample size of between 10% - 30% is good representation of the target population. The study used a sample size of 10% of the target population. Therefore, the study took 10% of the target population which is 98.

2.3.2 Sampling Technique

Stratified random sampling method was used to generate samples in this study to categorize the population of logistics firms into different categories. According to Baker et al., (2012) stratified sampling technique identifies sub-groups in the population and their proportions to form a sample. It groups a population into separate homogeneous subsets that share similar characters so as to ensure equitable representation of the sample in the population. Walter and Andersen (2013) in their study emphasize that stratified sampling method enables the researcher to select specific subjects who provided the most extensive information about the phenomenon being investigated.

The list of firms listed in 2016 in the KPMG database is the most comprehensive as it contains all relevant details of the enterprises including firm's description. The firms was categorized s according to nature of specification. Inferences about the performance of logistics firms in the population was drawn and they was considered to be representative of the population. The first step in stratified random sampling was to split the population into strata (Manufacturing; wholesale; ICT; Infrastructure/construction; transport; financial services; retail; agriculture; tourism; property/real estate; professional services; accommodation & entertainment; telecom; health; advertisement/creative; security; mining and others). The sampled firms was selected because they were listed in the top one hundred KPMG survey in 2016.

The second step was to take a simple random sample within each stratum. This way a randomized probabilistic sample is selected within each stratum. Each strata should be mutually exclusive (i.e. every element in the population can be assigned to only one stratum), and no population element can be excluded in the construction of strata (Arrest and Finlay, 2008). The population members have equal chances of being selected through stratified random sampling method. The basic unit that was examined in this study was the firm's employees. According to Mugenda and Mugenda (2013), when the study population is less than 10,000, a sample size of between 10% - 30% is good representation of the target population. The study used a sample size of 10% of the target population. A total of 98 respondents was picked randomly to give a sample size representative of the whole population. These comprised the respondents for this study.

2.4 Data collection instrument

The main research instrument was a structured questionnaire using nominal and scaled items. Most of the questions was structured on an agreement continuum using 5-point Likert type scales. The questionnaire comprises of four main sections related to the dependent and independent variables. An extensive review of relevant existing conceptual and empirical literature on firm strategies and logistical competitiveness produced the measures for each variable. These measures have been used to construct the questionnaire. Therefore, the measurement scales used in the questionnaire are deemed to have face and construct validity because they reflect the key components of the study variables as described in the extant literature and also since they are validated measures previously applied in related studies. Questions on firm strategies constructs was adapted from the Davenport, (2013); Morawczynski, (2009) and (Moron et al., 2012) toolkit for measuring firm strategies. The toolkit has been used in various studies in both developed and developing countries and it has produced consistent results (Moron et al., 2012). Questions on logistical competitiveness of the logistics firms have been adapted from various studies namely; urban ova, (2013); Rogers, (2010); and Porter, (1980).

2.5 Data collection procedure

Both primary and secondary data was used for the study. The primary data was collected through a self-administered structured questionnaire. Secondary data relating to the firms published logistical statements in national newspapers, websites' information, firms' economic reviews, and published surveys that shed light on relevant performance indicators such as profitability, market share, assets employed, liquidity ratios and other important firms' disclosures were also collected. The secondary data was used to cross validate the collected primary data. The unit of analysis was the logistics firms and employees was selected as the respondents based on the fact that they play a critical role in firm strategies and in determining the logistical competitiveness of their organizations. Primary data collection instruments mainly the questionnaires was used in the study. The process was closely monitored by the researcher to clarify any issues that may arise during the filling of the questionnaire. Those who did not respond within the specified time was reminded by the researcher through reminder emails, phone SMS and phone calls to improve the response rate of respondents.

2.6 Pilot test

Pilot study assisted the researcher to gauge the responses from the respondents on the topic under study. It also provides a forehand opportunity to examine the effectiveness of the instrument to be administered to the target population (Rodeo, 2004). The pilot study allows for pre-testing of the research instrument. Prior to the main study, the researcher conducted a pilot study on 10 (Ten (10) percent of the population of the study) logistics firms drawn from the top hundred logistics firms in different categories that participated in the KPMG 2015 survey in Kenya.

The clarity of the instrument items to the respondents was established so as to enhance the instrument's validity and reliability. (Mugenda & Mugenda, 2007), declared that validity enhances reliability of an instrument. The pilot study enabled the researcher to be familiar with the research and its administration procedure as well as identifying items that require modification. The result enabled the researcher to correct inconsistencies arising from the instruments, which ensured that they measure what was intended.

2.7 Data Processing and Analysis

Both qualitative and quantitative data was generated and analyzed using the Statistical Package for Social Sciences (SPSS) version 21. In this study, data obtained from the questionnaires was analyzed using descriptive statistics and presented in frequency tables and percentages. To establish the main characteristics of the study variables, descriptive statistics was done. Descriptive statistics involved computation of mean scores, standard deviation, percentages, and frequency distribution. Quantitative data was presented using statistical techniques such as tables while qualitative data were presented descriptively in this study.

3.0 RESULTS AND DISCUSSION

3.1 Response Rate

Orodho (2003) defines response rate as the extent to which the final data sets includes all sample members and is calculated as the number of respondents with whom interviews are completed and divided by the total number of respondents in the entire sample including non-respondents. The researcher distributed a total of 98 questionnaires out of which 82 were returned. This gives a response rate of 83.67%. This response rate confirms to Mugenda (2008) stipulation that a response rate of 50% is adequate for analysis; a rate of 60% is good and a response rate of 70% and over is excellent.

3.2. Demographic Information

3.2.1 Education Level

Table 3.1 Level of Education

Statement	Frequency	Percent
Secondary	16	19.75
Certificate	22	27.16
Diploma	27	32.10
Bachelors	11	13.58
Post Graduate	6	7.41

N= 82

The study sought to establish the respondents' level of education. 32.10% had Diploma Level education, 27.16% had certificate qualification, 19.75% of the respondents had secondary level education, and 13.58% of the respondents had undergraduate degrees while 7.41% of the respondents had post graduate degree. This was highly expected since most of the respondents were at an operational level where the only technical skills, knowledge and competencies are supposed to be high. Nevertheless, this means that the respondents were well informed and furnished this study with better information which added value.

3.2.2 Management Level

Table 3.2 Management Level

Statement	Frequency	Percent
Senior management	6	7.32
Middle Management	54	65.85
Lower Management	22	26.83

N= 82

The study sought to obtain data about the level of management amongst the respondents and the information tabulated above. This was important in determining the level of accuracy of the information gathered since management staff have upper hand in access to organization information. Middle management positions represented 65.85% of the responses. Lower level management reported percentage of 26.83% and finally senior level management recorded a percentage of 7.32%.

3.3 Cross Docking

Table 3.3 Cross Docking

Statement	Mean	Std. Deviation
Cross docking has a potential to bring great cost reduction in logistics.	3.9286	.81544

Cross docking improves efficiency in unloading, screening sorting and reloading logistics functions.	3.9388	.85935
Cross docking result in decreased inventory damage costs due to less loading and unloading of materials.	3.7449	1.08705
There exist adequate infrastructural capabilities to effect cross docking strategy.	3.8673	1.00142
Cross docking strategy may result in stock-outs risks if not properly managed	3.4796	1.14180

From table 3.3, most of the respondents agreed ($\bar{x}=3.9286$) that cross docking has a potential to bring great cost reduction in logistics. Similarly, the respondents agreed ($\bar{x} =3.9388$) that Cross docking improves efficiency in unloading, screening, sorting and reloading logistics functions. There was also agreement on other statements i.e. However, Cross docking result in decreased inventory damage costs due to less loading and unloading of materials and that there exist adequate infrastructural capabilities to effect cross docking strategy with averages of . However, as much as there was agreement in their responses, a mean slightly above the undecided ($\bar{x}=3.4796$) response was acquired on the statement that cross docking strategy may result in stock-outs risks if not properly managed. This concurs with Frazelle, (2001) who in his research concludes that, cross docking has a great potential to bring great financial and time savings in logistics. For example, most of the logistics success of Wal-Mart, the world's leading retailer, is attributed to cross docking. In traditional distribution with warehouses, the warehouse typically houses activities of receiving, put away, storage, replenishment, order picking, and shipping. Storage is well known to contribute greatly to costs due to inventory holding. Order picking is well known to contribute greatly to costs, due to labor requirements or the investments in costly automated equipment.

3.4 Reverse Logistics

Table 3.4 Reverse Logistics

Statement	Mean	Std. Deviation
Transportation is one of the key cost drivers in firms' operations.	4.1429	.75982
Proper inventory management result in maximization of space utilization and inventory costs reduction	3.9694	.95738
E-logistics is a logistics strategy worth full adoption by firms.	3.7245	.92815
Organizational performance can be directly attributed to up to standards logistics management	3.7959	1.02504

From table 3.4 above, most of the respondents agreed ($\bar{x}=4.1429$) that transportation is one of the key cost drivers in firms' operations. Richey et al. (2005) pointed out the environmental impact of returned products. Information technology and information-focused capabilities have increasingly been viewed as key predictors of firm performance. The respondent agreed ($\bar{x}=3.9694$) that proper inventory management result in maximization of space utilization and inventory costs reduction. Ramanathan et al (2012), e-logistics reduces cost of marketing and marketing research by facilitating collection analysis and dissemination of important information to customers through e-logistics channels and information technology channels in general. Other statements i.e E-logistics is a logistics strategy worth full adoption by firms and that organizational performance can be directly attributed to up to standards logistics management gained agreement with means of $\bar{x} =3.7245$ and $\bar{x}=3.7959$ respectively. Mutha and Pokharel (2009) argued that logistics can be seen as a forward chain re-designed to manage the flow of products backwards from customers to manufacturing for refurbishment and reproduction.

3.5 Order Consolidation

Table 3.5 Order Consolidation

Statement	Mean	Std. Deviation
Delivery scheduling improves on time deliveries hence reducing delays	3.9694	.85499
Order consolidation is a main strategy in ensuring organizational performance is improved.	3.9490	1.00895
E-logistics is a logistics strategy worth full adoption by firms.	3.7857	.95518
Packaging affects the aesthetic appeal of products and in turn customer perception which determines marketability of the products.	3.7245	.95010
Dissemination of detailed accurate data to all the supply chain segments result in quality performance and delivery	3.7347	1.05078

From table 3.5 above, most of the respondents agreed ($\bar{x}=3.9694$) that delivery scheduling improves on time deliveries hence reducing delays. Masters (2008) concludes that consolidation may allow for faster and consistent transit times, which in turn would result in reduced inventories (safety or in-transit) without changing customer-service standards. Moreover, with faster transit times, capital is tied up in the consignment for a shorter time, and fast deliveries may generate earlier payments and speed cash flow. The respondents agreed ($\bar{x}=3.9490$) as well that order consolidation is a main strategy in ensuring organizational performance is improved. Quinn (2007) reports that shipment consolidation enabled Nabisco Inc. to cut transportation costs by half, decrease inventory levels, and improve on-time delivery.

3.6 Block Chain Technology

Table 3.6 Block Chain Technology

Statement	Mean	Std. Deviation
Peer to peer networking reduces on logistics costs	4.0816	.83325
Block chain technology have necessitated decentralization of most activities in firms.	4.0000	.95248
Use of electronic money is embraced by the organization.	3.8776	.87656
There is preference of electronic payments over cash payments.	3.7551	.99547

From table 3.6 above, the respondents agreed ($\bar{x}=4.0816$) that peer to peer networking reduces on logistics costs. According to Lieber, (2017) Block chain was recognized as a technology that is going to be implemented in various supply chains to consider the benefits in visibility, optimization and forecasting. Most of them also agreed ($\bar{x}=4.0000$) that block chain technology have necessitated decentralization of most activities in firms. Responses gathered on other statements such as; that Use of electronic money is embraced by the organization and that there is preference of electronic payments over cash payments, earned agreement at $\bar{x}=3.8776$ and $\bar{x}=3.7551$ respectively. Swan, (2015), notes block chain can be used for any form of asset, including every area of finance, economics, and money.

4.0 SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

4.1. Summary and Findings

Information connects the organizations' functional units and the whole organization to external stakeholders. Information flow provides a special advantage to linking one activity with the others and makes real-time data created in activity widely available, both within the firm and with outside suppliers, channels, and customers. The organizations are yet to ensure that the information on demand forecast is shared with logistics partners since there

is low information sharing at the moment. There lacks communication of change in delivery to the customers. Moreover, there is low receipt and address of customer complaints and feedback regarding service provision. Reverse logistics is a strategy that provides value-recapturing ways to ensure that cost reduction, profit maximization, and environmental conservation have all been achieved simultaneously. Organizations have not yet established a level-down strategy on how to recall faulty products. There are no well-established collection points in different towns for returnable packages. Moreover, there are minimally appointed carriers in different regions to facilitate the frame of a returnable package. Transportation system is the most important driver in logistics and practical means of achieving transportation objectives such as low costs, timely delivery of transportation-related information to the rest of the enterprise and customers, increase transportation velocity while making optimum use of the firm's resources depends on the state of the transportation systems in use. Organizations use the electronic system to track all products that are transported to customers. There is also established route planning for the collection and delivery of orders. However, organizations do not have a vehicle scheduling system to avoid idle time. Measure the effective and efficient performance of inventory depends on to what extent the firm has the right quantity of inventory in the right place and at the right time which is dependent on the inventory management technique in place. The performance of firms in Kenya is highly dependent on information flow management, reverse logistics, transport management, and inventory management. This was proven in the research since there was an agreement on the relationship between the performance of the firms and the aforementioned independent variables.

4.2 Conclusions

Logistics practices have a significant contribution to the performance of manufacturing firms in Kenya. Manufacturing firms have achieved a lot due to the implementation of these strategies. However, there still exists an enormous opportunity to even achieve more performance if the implementation of logistic strategies will be handled with the seriousness that it deserves. Information flow management is a function that connects the business to the external and internal environment.

4.3 Recommendations

The firms should integrate their information systems with that of their business partners such as the suppliers to ensure the information on demand forecast is shared with their logistics partners. Furthermore, any change in delivery should be communicated to the customers on time to enable them to go for contingency plans. Finally, the organization should have a well-structured system of receiving and addressing feedback from the customers. This will go a long way in boosting customer satisfaction and loyalty. Reverse logistics is a very important strategy for tracing and collecting back value in the supply chain. The organization should have a well-established collection point in different towns for returnable packages. There should be appointed carriers in different regions to facilitate the frame of returnable packages. As a way of reducing fuel costs, the organization should have route planning for the collection and delivery of orders. This also helps in ensuring proper vehicle usage and maintenance. The vehicle should have a scheduling system to avoid idle driver time. Vehicles should only be used when necessary. The firm should employ the use of JIT deliveries to their customers. This will require good information communication and commitment. Vendor-managed Inventory strategy should as well be used for managing the spare parts of vehicles in the organization. Moreover, cycle counting should be periodically conducted to reduce and or avoid discrepancies between the recorded and actual inventories in the organization. Improvement of firms' performance can even be better improved if the specific logistics practices are perfected. Market share will be expanded, better delivery and improved transport management services. This will eventually boost the customers' satisfaction.

4.4 Areas for further research

There still exist a number of areas that need to be studied. Logistics practices in government parastatals are one of the key areas especially because government set-up is service-oriented and not profit maximization and cost reduction. Another area is logistic practices in the Non-governmental organizations which are donor-funded. The two areas are quite different from the manufacturing set-up, therefore worth researching on.

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