



The Strategic  
**JOURNAL of Business & Change  
MANAGEMENT**

ISSN 2312-9492 (Online), ISSN 2414-8970 (Print)



[www.strategicjournals.com](http://www.strategicjournals.com)

Volume 5, Issue 3, Article 82

**FACTORS INFLUENCING LOGISTICS MANAGEMENT IN THE ENERGY SECTOR IN KENYA (A CASE STUDY OF KENYA POWER, NAIROBI)**

Kareko, A. N., & Odari, S.

**FACTORS INFLUENCING LOGISTICS MANAGEMENT IN THE ENERGY SECTOR IN KENYA (A CASE STUDY OF KENYA POWER, NAIROBI)**

**Kareko, A. N.,<sup>\*1</sup> & Odari, S.<sup>2</sup>**

<sup>\*1</sup> Msc. Candidate, Jomo Kenyatta University of Agriculture & Technology [JKUAT], Nairobi, Kenya

<sup>2</sup> Ph.D, Lecturer, Jomo Kenyatta University of Agriculture & Technology [JKUAT], Nairobi, Kenya

**Accepted: September 26, 2018**

---

**ABSTRACT**

*Logistics management approaches in conjunction with process management principles constitute the right way of enterprise management. Logistics enables the connection of the supply base and the marketplace through the coordination and management of various activities. The general objective of the study was to determine Factors Influencing Logistics management in the energy sector in Kenya. The specific objectives of the study were: to evaluate the Influence of distribution strategy on logistics management in the energy sector and to examine the Influence of storage facilities on logistics management in the energy sector. The target population was 112 employees of Kenya Power headquarter in Nairobi. The study adopted stratified sampling design. Using stratified sampling design, a sample size of 88 respondents was taken. The study used Primary data which was collected using administered questionnaires. The data obtained was descriptive that was analyzed using SPSS package. The conclusions of findings was that there is significant relationship between logistics management in the energy sector in Kenya by focusing on infrastructure, government policy, distribution strategy and the storage facilities on logistics management in the energy sector in Kenya and recommendations was that infrastructure, government policy, distribution strategy and the storage facilities are vital on logistics management in the energy sector in Kenya.*

**Key Words:** *Distribution Strategy, Storage Facilities, Logistics Management*

## INTRODUCTION

The driving forces of advanced economies are particular industries which are more or less typical for individual countries. Each industry has got its own and characterized supply chain in which the huge material, financial and information flows originate. As a result of contemporary global trend of business, the material flows are getting more and more complex and bulky. Those huge material flows is necessary to plan, manage and control, which's the core of supply chain management using logistics science methods and approaches (Chang, 2011).

Logistics management approaches in conjunction with process management principles constitute the right way of enterprise management in a contemporary fully globalized business market environment when it places emphasis on competitiveness increase, long term sustainable growth and living environment protection. As a result of globalization trend of business, huge flows streams across supply chains regardless of industry nature. It affects companies supply chains and their inner logistics chains hence the companies should apply logistics and process management principles for their planning, management and control business activities. If the companies want to be competitive, they should have well-developed logistics management system across their whole supply chains and also within the scope of their inner logistics chains. (Hart, Lukoszová & Kubíková, 2012)

According to (Harrison & Hoek, 2012), Companies must recognize that the competition today is through their capabilities and competencies. By managing their core processes better than competitors manage theirs, organizations can create superior value for customers and consumers. The core processes include such activities as new product development, supplier development, order fulfillment, and customer management. If an organization can perform these activities in a more cost-effective way

than the competitors, the organization will gain the advantage at the marketplace.

According to the American Council of Logistics Management 2007, logistics is the process of planning, implementing and controlling the efficient, cost effective flow of storage of raw materials, in-process inventory, finished goods and related information from point of origin of consumption for the purpose of conforming to customer requirements.

Christopher (2005) further illuminates that logistics is basically an integrative process that optimizes the flow of materials and supplies through the organization and its operations to the customer. He points out that the ultimate objective of the logistics function is to support corporate goals by delivering product to the customer at the time and place of his choosing. However this objective must be balanced against the cost of providing the service. It's the work required to move and position inventory throughout a chain of participants. From initial purchase of material or component, the system of logistics adds value by moving inventory when it is needed and where it is needed. Materials and components gain value at each step of their change into finished inventory. (Lumsden. K. 2013)

Christopher (2009) has defined Logistics as the process of strategically managing the procurement, movement and storage of materials, parts and finished inventory and related information flows through the organization and its marketing channels in such a way that current and future profitability are maximized through the cost-effective fulfillment of orders. It is that part of the supply chain process that plans, implements and controls the efficient, effective flow and storage of goods, services, and related information from the point-of-origin to the point-of-consumption in order to meet customers' requirements.

According to Zheng and Zhang (2010), distribution logistics is the management activities to pursue

customer satisfaction and order fulfillment, connecting the main body of supply and demand, overcoming space and time obstacles to achieve efficient and rapid movement of goods. It also involves conveying of information related to the distribution of physical goods thus making it slightly distinct from physical distribution.

Logistics is one of the major enablers of growth of trade and commerce activities in a country. On the macro level logistical infrastructure such as the various modes of transportation, transportation equipment, storage facilities connectivity and information processing are contributing to a large extent in the physical movement of goods produced in manufacturing, mining, and agricultural sectors. The reliability in distribution of consumption will contribute to a great extent in the growth of a country's domestic and international trade (Sople, 2007).

Resource based view posits that firms which have access to, and control over, valuable, inimitable, and imperfectly substitutable resources could achieve sustainable competitive advantage. A firm's capabilities are developed from its resources, which can be both tangible (e.g. physical assets) and intangible (e.g., technological knowhow or market intelligence). In the logistics service industry, tangible physical resources would include warehouses, vehicle fleets, and ICT infrastructure, among others.

Logistics management is the means whereby the needs of customers are satisfied through the co-ordination of the materials and information flows that extend from the marketplace, through the firm and its operations and beyond that to suppliers. Logistics enables the connection of the supply base and the marketplace through the coordination and management of various activities. With logistics it's possible to meet the demands and expectations of the end customers, whether they are buying an end product or raw materials. Sarmiento (2009). Logistics

runs through the entire organization, from the management of raw materials to the delivery of the final product, therefore its essential the logistics is managed effectively. To achieve this company-wide integration clearly requires a quite different orientation than the typically encountered in the conventional organization. The mission is to plan and coordinate all those activities necessary to achieve desired levels of delivered service and quality at lowest possible cost (Waters, 2013).

The Kenya Power is a Limited engaged in the transmission, distribution and retail of electricity purchased in bulk from Kenya Electricity Generating Company Limited (KenGen), Independent Power Producers (IPPs), Uganda Electricity Transmission Company Limited (UETCL) and Tanzania Electric Supply Company Limited (TANESCO). The Company's segments include Nairobi, Mount Kenya, Coast and West Kenya. It is the exclusive electricity distributing company in Kenya with a staff complement of over 11,000 employees. The vision of Kenya Power is 'To provide world class power that delights our customers.' The mission of the company is 'Powering people for better lives'. The Company's core values are; customer First, one Team, passion, integrity and excellence. At the end of the year ending December 2017, the Company had net revenue of Ksh 111.53 billion, a net income of Ksh 7.56 billion and a market capitalization of Ksh 16.20 billion (Kenya Power 2017).

The Kenya Power is responsible for ensuring that there is adequate line capacity to maintain supply and quality of electricity across the country. KETRACO also assist them by constructing and maintaining large Power transmission lines. Large power transmission lines are lines carrying a capacity of 132kv and above (Kenya Power 2017).

#### **Statement of the Problem**

To be a marketplace leader, low cost and receptiveness are the key success factors. Logistics

activities generate high cost reducing competitiveness of the company, especially for the remote production base (Mwangi, 2016). Thus, logistics activities which are delivery planning, freight forwarder and delivery mode selection among others must be optimized. (Bowersox, 2010). According to (Lumsden, 2003), Today's market condition becomes more volatile and causes more pressure on cost and speed. Due to high competition in the globalization market and the more demanding customer, the product life cycle and time to market become shorter, price competition is tougher, and the responsiveness to changing demand is more crucial. Beside high product quality, total cost and response time seem to be the key success factors and important missions that the company and its supply chain and logistics functions have to optimize in order to achieve the cost and service leadership. (Stock & Lambert 2011). Most energy firms have complex supply chains which impact the cost of delivering supplies to customers, the timeliness of supplies, and the environmental impact of supply delivery. The energy Sector Kenya faces a number of challenges that makes it difficult for its supply chain to operate efficiently and effectively. Logistics plays a very important role in ensuring that goods and services are sourced and delivered within reasonable time in order to serve their purpose. Kenya Power (KP) is given the responsibility of transmission, distribution and retail of electricity purchased in bulk from Kenya Electricity Generating Company Limited (KenGen) to various consumers in Kenya. There are cases where consumers run short of (KPLC) services and it takes long periods before corrections are done. Part of this disruptions may be caused by poor logistics on the part of distribution strategy. Infrastructure might likewise affect the efficiency with energy firm's logistics system functions. When the logistics system is inefficient, firms will experience high overhead costs, and compromise quality of service as well as stock out stock out experience (Stock & Lambert 2011).

There has been underperformance in information flow, warehousing, inventory control, packaging and transportation commonly known as logistics mix over the years in the Energy Sector (Christopher M 2011).

Poor or inadequate infrastructure appears to constrain the logistics performance for the organization. A functional logistic system is essential in enabling trade Logistics does have the capacity to be of significant value to both Governments and industry. It is an essential tool for companies to achieve increased market penetration and improved returns. Logistics suppliers that innovate, integrate and work with their customers are making significant progress. An analysis of supply chain system could become more complex when the distribution network system should cover widely dispersed locations. Warehousing and storage allows organizations to align the time difference between output and its consumption and provides an opportunity to carry out continuous production and supply on the basis of established inventory. It's behind this background that this study therefore sought to study Factors Influencing Logistics management in the energy sector.

### **Objectives of the Study**

The general objective of the study was to examine Factors Influencing Logistics management in the energy sector in Kenya. The specific objectives of this research were:

- To evaluate the Influence of distribution strategy on logistics management in the energy sector.
- To examine the Influence of storage facilities on logistics management in the energy sector.

## LITERATURE REVIEW

### Theoretical Framework

#### Resource Dependence Theory

The theory originated in the 1970s by Jeffrey Pfeffer and Gerald R. Salancik. Organizations depend on resources. These resources ultimately originate from an organization's environment. The environment, to a considerable extent, contains other organizations (Pfeffer & Aldrich, 1976). The resources one organization needs are thus often in the hand of other organizations. Resources are a basis of power. Legally independent organizations can therefore depend on each other. Power and resource dependence are directly linked: Organization A's power over organization B is equal to organization B's dependence on organization A's resources. Power is thus relational, situational and potentially mutual (Blau, 1964).

According to Barney (1991), Resource dependence concerns more than the external organizations that provide, distribute, finance, and compete with a firm. Although executive decisions have more individual weight than non-executive decisions, in aggregate the latter have greater organizational impact. Managers throughout the organization understand their success is tied to customer demand. Managers' careers thrive when customer demand expands. Thus, customers are the ultimate resource on which companies depend. Although this seems obvious in terms of revenue, it is actually organizational incentives that make management see customers as a resource.

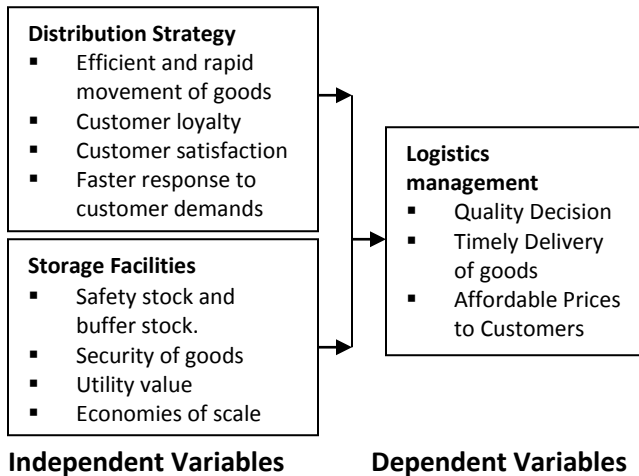
Resource dependence theory is concerned with how organizational behavior is affected by external resources the organization utilizes, such as raw materials. Resource dependence theory is underpinned by the idea that resources are key to organizational success and that access and control over resources is a basis of power. Resources are

often controlled by organizations not in the control of the organization needing them, meaning that strategies must be carefully considered in order to maintain open access to resources (Boyd, 1990). Organizations typically build redundancy into resource acquisition in order to reduce their reliance on single sources e.g. by liaising with multiple suppliers. . The procurement of external resources is an important tenet of both the strategic and tactical management of any company. Resource dependence theory has implications regarding the optimal divisional structure of organizations, recruitment of board members and employees, production strategies, contract structure, external organizational links, and many other aspects of organizational strategy (Davis, 2010). The theory is important because an organization's ability to gather, alter and exploit raw materials faster than competitors can be fundamental to success (Pfeffer & Salancik, 1978).

#### Total Cost Logistics Theory

Managers traditionally have viewed logistics as a mandatory cost package. However top performing companies currently recognize that mastering supply chain and logistics can be more than that, it can be the source of competitive advantage. This planned shift opens up significant growth opportunities for logistics providers, with winners using different paths and business models to foster growth. Total cost logistics model is focused on achieving the lowest total cost across each function of logistics a cost decision in one function should consider impact to costs of all other logistics functions. This requires an increase in storage cost to hold the material longer (Shenhar & Dvir, 2007). Thus managing well the storage facilities by Kenya power may lead to increased efficiency, save on cost, inventory, as well as boost the profitability of the firm.

## Conceptual Framework



**Figure 1: Conceptual Framework**

## Empirical Review

### Distribution Strategy

Today's business environment has become increasingly competitive. This causes enormous pressure for many companies in many industries. In such an environment, companies need to continuously search for ways to design and manufacture new products and distribute these products in an efficient and effective fashion. For many years, companies focused their efforts on reducing costs occurring in the manufacturing processes as well as other operations. There are an increasing number of companies looking at distribution and recognizing it as the last frontier for cost reduction (Eskigun, & Uzsoy, 2010).

Sarmiento, (2009) defines distribution as the steps taken to store and transport a product from the supplier stage to the customer stage in the supply chain. It is a sequence of activities involving the transfer of products directly from supply points to demand points or via transshipment points such as warehouses. The supply points could be manufacturing facilities, warehouses, while the demand points could be customers or retail stores.

Boakye and Samuel (2013), conducted a study on Effective Distribution Management, A Pre-Requirement

for Retail Operations: The research was inductive rather than standard quantitative survey (deductive). Questionnaire and interviews were used to collect all the necessary data from the management, customers and employee. The Study indicated that there is statistically significant correlation between distribution and customer satisfaction, easy flow of goods and sales. Consumers have the opportunity to compare prices, quality, and service. In turn, they demand competitive prices, high quality, tailored or customized products, convenience, flexibility, and responsiveness. They tend to have a low tolerance level for poor quality in products and or service.

According to Zheng and Zhang (2010) distribution logistics is the management activities to pursue customer satisfaction and order fulfilment, connecting the main body of supply and demand, overcoming space and time obstacles to achieve efficient and rapid movement of goods. It also involves conveying of information related to the distribution of physical goods thus making it slightly distinct from physical distribution.

A distribution channel consists of interdependent institutions, and the different members perform one or several activities, such as: carrying of inventory, demand generation or physical distribution. In general, the functions of the intermediaries are to sorting, accumulating, allocating and assorting (Coughlan et al., 2006: as cited by Åsa& Lars 2010). This implies that almost all organizations are engaged in intermediary functions such as wholesalers, retailers, distributors, and agents. Aspects that ought to be taken into consideration when describing physical flows are mainly structure and organization of actors (Åsa& Lars 2010)

### Storage Facilities

Warehousing refers to the activities involving storage of goods on a large-scale in a systematic and orderly manner and making them available conveniently

when needed. Warehousing is one of the important auxiliaries to trade. It creates time utility by bridging the time gap between production and consumption of goods. According to Lambert et al. (1998) they contribute to a multitude of the company's missions, like; Achieving transportation economies (e.g. combine shipment, full-container load), achieving production economies (e.g. make-to-stock production policy), taking advantage of quality purchase discounts and forward buys, supporting the firm's customer service policies, meeting changing market conditions and uncertainties (e.g. seasonality, demand fluctuations, competition), overcoming the time and space differences that exist between producers and customers, providing temporary storage of material to be disposed or recycled (i.e. reverse logistics)

Nynke Faber (2015) conducted a study on exploring the fit between warehouse characteristics and warehouse planning and control structure, and its effect on warehouse performance in Netherlands o 20 different, modern warehouses in the Benelux. All warehouse management structures (WMSs) had been implemented between 1992 and 1999. they used In in-depth structured interviews, that focused on two types of data and information: about the planning and control structure, and particularly about the WMS system in use; and about the products, processes, resources, storage and handling technologies, and the lay-out, being aspects of warehouse complexity. The interviews were held using a questionnaire with open questions about the planning and control structure and the warehouse complexity. Their contribution to warehousing practice was to demonstrate that fit between Warehouse Management structure and warehouse context has a positive impact on performance. Managers can use such knowledge in selecting appropriate planning and control systems for their warehouse, fitting the context. Warehouse planning systems that are too extensive in dynamic contexts,

or scheduling and optimization that are too complex in simple contexts imply a misfit and lead to underperformance. Additionally, Warehouse Management structure dictates the form and operation of the information system supporting it. Therefore, their findings can also help managers in selecting an appropriate warehouse management information system.

## **RESEARCH METHODOLOGY**

A research design is the arrangement of conditions for collection and analysis of data in a manner that aims to combine relevance to the research purpose with economy in procedure. It refers to decisions regarding what, where, when, how much, by what means concerning an inquiry or a research study Kothari (2007). The research design adopted for this study was descriptive research design. According to Saunders, Lewis and Thornhill (2009), a descriptive research is concerned with the process of collecting information to answer questions on the present status of an occurrence. This method was used to obtain information concerning the current status of the investigation of the factors affecting logistics management in the energy sector in Kenya because it allows for in-depth study of the case study.

## **FINDINGS**

The researcher distributed 79 questionnaires but only 63 were filled and returned. The study had a high response rate of 80 % indicating that only 20% of the respondents did not participate in the study. The high response rate was attributed to the fact that the researcher herself administered the questions and as such had an opportunity to clarify on areas which would have otherwise cause lack of cooperation.

The study sought to find out how respondents were distributed with regard to gender. This was thought to be an important indicator towards the diversity of the respondents. Majority of the respondents 66.6%



were males while females were 33.3% of the total respondents who participated in the study.

The study sought to establish the highest level attained by the respondents. This was to establish how well the respondents understood the questionnaire and from the findings, it is clear that the Level of Management selected has well educated

personnel since 44.4% had undergraduate degrees, while those with postgraduate were 39.7% and diplomas only 10%. This indicates that the majority of employees have necessary level of education that can indeed enable them respond well to questions on logistics management

## DISTRIBUTION STRATEGY

**Table 1: Efficient and rapid movement of goods**

Category	Frequency	Percent
Strongly agree	21	33.3
Agree	20	31.7
Neither agree or disagree	0	0
Disagree	13	20.6
Strongly disagree	9	14.3
<b>Total</b>	<b>63</b>	<b>100</b>

**Source: (Survey data, 2018)**

The study sought to establish from respondents if Distribution systems leads to Efficient and rapid movement of goods. 33.3% of respondents strongly agreed, 31.7 agreed while 35% of respondents disagreed. Cumulatively 65% of respondents affirmed that Distribution systems leads to Efficient and rapid movement of goods. The results of the study agreed

with the study done by (Crainic & Laporte, 2007) on Planning models for freight transportation, which concluded that to achieve the objectives of quality, efficiency and customer service level in this competitive business world, the organization have to redesign the entire distribution network.

**Table 2: Long-term customer loyalty**

Category	Frequency	Percent
Strongly agree	22	34.9
Agree	28	44.4
Neither agree or disagree	3	4.8
Disagree	6	9.5
Strongly disagree	4	6.1
<b>Total</b>	<b>63</b>	<b>100</b>

**Source: (Survey data, 2018)**

The study sought to establish from respondents if Distribution systems were vital on the long-term customer loyalty. Majority of the respondents 44.4% agreed that distribution systems are vital on the long-term customer loyalty, 34.9 % strongly agreed that distribution systems are vital on the long-term

customer loyalty. 9.5% disagreed while only 6.1% of the respondents strongly disagreed. Cumulatively 79.3% of the respondents agreed that distribution systems are vital on the long-term customer loyalty. The results of the study agreed with the study done by Zheng and Zhang (2010), Research on Green

Logistics System Based on Circular Economy with conclusion that distribution logistics is the

management activities to pursue customer satisfaction and order fulfilment.

**Table 3: Customer satisfaction**

Category	Frequency	Percent
Strongly agree	10	16.3
Agree	25	39.7
Neither agree or disagree	6	9.5
Disagree	15	23.4
Strongly disagree	7	11.1
<b>Total</b>	<b>63</b>	<b>100</b>

**Source: (Survey data, 2018)**

The researcher sought to establish if Good Distribution systems increases Customer satisfaction. Majority of the respondents 39.7% agreed that Good Distribution systems increases Customer satisfaction. 16.3 % strongly agreed that Good Distribution systems increases Customer satisfaction. 34.5% of the

respondent's disagreed. The results of the study agreed with the study done by Zheng and Zhang (2010), Research on Green Logistics System Based on Circular Economy with conclusion that distribution logistics is the management activities to pursue customer satisfaction and order fulfilment.

**Table 4: Faster response to customer demands**

Category	Frequency	Percent
Strongly agree	22	34.9
Agree	20	31.8
Neither agree or disagree	0	0
Disagree	13	20.6
Strongly disagree	8	12.7
Total	63	100

**Source: (Survey data, 2018)**

The researcher sought to establish that if Good Distribution systems leads to faster response to customer demands. From the study 34.9 % of respondents strongly agreed and, 31.8 % agreed that Good Distribution systems leads to faster response to customer demands. This was an indication that Good Distribution systems leads to faster response to

customer demand. The results of the study agreed with the study done by (Chopra 2013), on Designing the distribution network in a supply chain which concluded that a decrease in the response time customer's desire increases the number of facilities required in the network.

**STORAGE SYSTEMS AND FACILITIES**

**Table 5: Storage system in the organizations improves customer service**

Category	Frequency	Percent
Strongly agree	22	34.9
Agree	24	38.1
Neither agree or disagree	1	1.6
Disagree	9	14.3

Strongly disagree	7	11.1
<b>Total</b>	<b>63</b>	<b>100</b>

**Source: (Survey data, 2018)**

The study sought to find out and establish if Good Storage system in the organizations improves customer service. Findings from the study showed that a vast majority strongly agreeing with 35.1 % and 34.9 % agreeing with 11.1% strongly disagreeing and 14.3% disagreeing. 1.6 % were undecided. The results of the study agreed with the study done by

Robinson, (2003) on designing an integrated distribution system which concluded that, combining the utilization of fewer warehouses with a reliable transportation system can improve customer service and lower transportation costs through consolidation opportunity with fewer warehouse.

**Table 6: Storage system Security**

Category	Frequency	Percent
Strongly agree	25	39.7
Agree	20	31.7
Neither agree or disagree	0	0
Disagree	12	19
Strongly disagree	6	9.4
<b>Total</b>	<b>63</b>	<b>100</b>

**Source: (Survey data, 2018)**

The study sought to know from respondents if Storage system on a large extent enhances security of goods to the overall logistics system. Findings presented indicated that 39.7% majority of respondents strongly agreed and 37.9% agreeing

while 19% strongly disagreeing and 9.6% disagreeing. Cumulatively 71.3% of the respondents agreed that Storage system enhances security of goods on the overall logistics system.

**Table 7: Storage system increases the utility value**

Category	Frequency	Percent
Strongly agree	17	27
Agree	23	36.5
Neither agree or disagree	4	6.4
Disagree	12	19
Strongly disagree	7	11.1
<b>Total</b>	<b>63</b>	<b>100</b>

**Source: (Survey data, 2018)**

The study sought to establish whether Storage system increases the utility value of goods by providing a means to have the right products available at the right place in the right time. The

finding presented indicated that the Storage system increases the utility value of goods by vast majority agreeing with 36.5% and 27% strongly agreeing.

**Table 8: Storage system provide economies of scale**

Category	Frequency	Percent
----------	-----------	---------

Strongly agree	23	36.5
Agree	18	28.4
Neither agree or disagree	3	4.6
Disagree	10	16.3
Strongly disagree	9	14.2
<b>Total</b>	<b>63</b>	<b>100</b>

**Source: (Survey data, 2018)**

The study sought to know whether Storage system provide economies of scale through efficient operations. Findings from the research showed that a vast majority strongly agreed with 36.5 % and 28.4 % agreeing with only 14.2 % strongly disagreeing and 16.3% disagreeing 4.6% were undecided. The trend of the respondents indicated that indeed Storage system provide economies of scale through efficient

operations. The results of the study agreed with the study done by Kolinski, (2016) on Warehouse space in Poland which concluded that warehouse management should focus on ways to improve the efficiency of processes, both internal and external supply chain and continuous monitoring and evaluation of the results.

#### **LOGISTICS MANAGEMENT**

**Table 9: Smooth information flow to all logistics functions leads to Quality decision**

Category	Frequency	Percent
Strongly agree	19	30.1
Agree	22	34.9
Neither agree or disagree	5	7.9
Disagree	14	22.2
Strongly disagree	3	8.2
<b>Total</b>	<b>63</b>	<b>100</b>

**Source: (Survey data, 2018)**

The study sought to find out if Smooth information flow to all logistics functions leads to quality decisions in the organization. From the study, 30.1% of respondents strongly agreed 34.9% agreed, 7.9 % neither agreed nor disagreed, 22.2% disagreed and

8.2% strongly disagreed. Cumulatively 65% agreed indicating that indeed smooth information flow to all logistics functions leads to quality decisions in the organization.

**Table 10: Embracing logistics functions will achieve timely delivery of good and services**

Category	Frequency	Percent
Strongly agree	27	42.8
Agree	30	47.6
Neither agree or disagree	2	3.1
Disagree	2	3.1
Strongly disagree	2	3,1
<b>Total</b>	<b>63</b>	<b>100</b>

**Source: (Survey data, 2018)**

The study sought to determine if Embracing logistics

functions achieve timely delivery of good and

services. The finding presented indicated that a vast majority 47.6% of respondents Agreed, 42.8%

strongly agreed, while equal 3.1%, neither agree or disagree, disagreed or strongly disagreed.

**Table 11: logistics management leads to affordable prices of goods and services charged to customers**

Category	Frequency	Percent
Strongly agree	12	19.0
Agree	29	46.0
Neither agree or disagree	6	9.5
Disagree	11	17.5
Strongly disagree	5	8.0
<b>Total</b>	<b>63</b>	<b>100</b>

**Source: (Survey data, 2018).**

The respondents were asked state their opinion if efficient logistics management would lead to reduction of cost translating to affordable prices of goods and services charged to customers. 19.0% of respondents Strongly agreed, 46.0% agreed , 9.5% Neither agreed or disagreed, 17.5% disagreed and 8.0 % of respondents Strongly disagreed cumulatively 65% of respondents agreed signifying that efficient logistics management would lead to reduction of cost translating to affordable prices of goods and services charged to customers.

### CONCLUSIONS

Distribution strategy is one of the most crucial factor that affect logistics management practice in the sector. This is because it enabled the organization in a great way so as to ensure there is no wastage and easy detection of fraud cases in the event when they arose, the systems in place are also of great importance for the procurement department as a whole because procurement is faced with lots of challenges and with effective distribution strategy the logistics management practice is made easier and a success.

The researcher observed that storage systems and facilities greatly affected logistics management practice in the energy sector in Kenya. Maintaining good storage systems and facilities and employee

involvement in decision making are keys to effective logistics management practice in the energy sector in Kenya. The respondents emphasized on the need to diligently adhere to high storage systems and facilities because as a result it leads to free flow of procurement operations, distribution strategy efficiency, time management in avoiding court injunctions which are a waste of time and money which destabilizes the operations of the organization.

### Recommendations

Organization should adopt and implement different distribution strategies for efficiency and effectiveness of firm progress. Distribution strategy should be properly done to ensure smooth running of the organization. Distribution strategy is very vital in the organization and should be handled with great care to avoid misunderstandings between employees.

Storage systems and facilities are very important to an organization to attain maximum results, the management should ensure that the firm has the best storage systems and facilities so as to ensure less or no wastages which occur from breakages and there will also be order in the way goods are stored.

### Recommendation for further Research

The research investigated the factors influencing logistics management in the energy sector in Kenya.

The researcher recommended this research to be done on other industries such as the manufacturing industry, construction industry not the energy sector only. Further research can be done on other factors influencing logistics management in the energy sector

in Kenya. Factors such as the influence of organization culture, management styles, training and teamwork on logistics management in the energy sector in Kenya.

## REFERENCES

- Agénor, P. R. (2010). A theory of infrastructure-led development. *Journal of Economic Dynamics and Control*, 34(5), 932-950.
- ÅsaGustafsson& Lars-OlofRas (2010) Distribution channel structure and integration - Contingency variables in the sawmill industry.
- Barney, J. (1991). Firm Resources and Sustained Competitive Advantage. *Journal of Management*, 17(1), 99-120.
- Bertalanffy, L. V. (1968). General system theory. New York: George Braziller Inc.
- Blau, P. M. (1964). Exchange and Power in Social Life. New York: Wiley.
- Boakye.S and Samuel . M,( 2013) Effective Distribution Management, A Pre-Requisite For Retail Operations: *European Journal of Business and Innovation Research*. 1, No. 3, pp.28-44
- Bowersox E (2010) Logistic chain modeling. *International Journal of Supply. Chain. Management Vol. 2, No. 4, December 2010*.
- Chan, K.C. Ho (2009), A case based logistics resource management system for managing order-picking operations in warehouses, *Expert Systems with Applications, Vol. 36(4), pages 8277-830*
- Chang T. S.,( 2011) "Best routes selection in international intermodal networks, "Computers and Operations Research,vol.35,no.9,pp. 2877–2891.
- Chopra, S (2013) Designing the distribution network in a supply chain", *Transportation Research Part E*, 39(2), 123-140.
- Christopher, M. &D.Towill. (2009). An integrated model for the design of agile supply chains. *International Journal of Physical distribution & Logistics Management*, 235-246.
- Cohen, J. P. (2010). The broader effects of transportation infrastructure: Spatial econometrics and productivity approaches. *Transportation Research Part E: Logistics and Transportation Review*, 46(3), 317-326.
- Cohen, M.A. & Lee, H.L. (1998). Strategic analysis of integrated production-distribution systems: models and methods", *Operations Research*, 36(2), 216-228.
- Couglan, A., Anderson, E., Stern, L. & El-Ansary, A. (2006), *Marketing channels*, Pearson International Edition.
- Crainic, T.G. &Laporte, G (2007). Planning models for freight transportation", *European Journal of Operational Research*, 97(3), 409- 438.
- Daily Nation Thursday 11<sup>th</sup> November 2012, Nation Media Publishers Nairobi Kenya
- Davis, G. F. (2010). Resource Dependence Theory: Past and future. *Research in the Sociology of Organizations*, 28(1), 21-42.
- Des Powel (2011) Governments and Industry Working Together to Implement Modern Logistics. *Transport and Communications Bulletin for Asia and the Pacific No.70, 2010*.

- Eskigun, E and Uzsoy, R(2010)., Outbound supply chain network design with mode selection, lead times and capacitated vehicle distribution centers ", *European Journal of Operational Research*, 165(1), 182- 206, 2010.
- Erenguc, S. &Vakharia, A. (1999). Integrated production/distribution planning in supply chains: an invited review", *European Journal of Operational Research*, 115(2), 219-236
- Fechner I., (2009), Determinants of warehouse space market development in Poland, *LogForum*, Vol. 5, Issue 1, p. 1-10 23.
- Ferri . K and Mohd . R (2012) Impact of Distribution Channel Innovation on the Performance of Small and Medium Enterprises. *International Journal of Business and Management Vol. 5, No. 1, 2012, pp. 52-6*
- Fink R.( 2013).Logistic chain modelling , *European Journal of Operational Research*, 87(1), 1-20
- Government Business Journals 2009, Government Press Printers Nairobi
- Government Business Journals 2012, Government Press Printers Nairobi
- Grossman G., Helpman E., (2005), Outsourcing in a Global Economy, *Review of Economic Studies*, Vol. 72, Issue 1, p. 135–159. 13.
- Grundey D., (2007), Logistics Centre Concept through Evolution and Definition, *Engineering Economics*, Vol. 54, Issue 4, p. 87–95 4.
- Gupta S (2010) An approach to integrating environmental considerations within managerial decision making, *Journal of Industrial Ecology*, 14 (3) (2010) , pp. 378-398
- Henrik Christiansen, (2015), Effective Warehouse Management Using Lean and Six Sigma
- Holma, E., &Kajander, S. (2010), The influence of transportation infrastructure on economic development. *Logistics and Transportation Review*, 32(1), 63-76.
- Howell, K.E. and Lancaster, G. (2008), 'Communicating in the new interactive marketplace', *European Journal of Marketing*, 42(9–10): 1079.
- International Monetary Fund (IMF). (2010). Principal global indicators. Retrieved May 17, 2010, from <http://www.imf.org>
- JyriVilko, Boris Karandassov, Ekaterina Myller (2011). Logistic Infrastructure and Its Effects on Economic Development, *China-USA Business Review*, November 2011, Vol. 10, No. 11, 1152-1167
- KahiaG and Mike I (2014), Factors Affecting the Performance of Distribution Logistics among Production Firms in Kenya. *International Journal of Academic Research in Business and Social Sciences* October 2014, Vol. 4, No. 10
- Knemeyer, A. M., & Murphy, P. R. (2004). Evaluating the performance of third-party logistics arrangements: A relationships marketing perspective. *Journal of Supply Chain Management*, 40(1), 35-51
- Kolinski A. (2015), Evaluation problem and assessment method Of warehouse process efficiency, *Proceedings of the 15th International Scientific Conference, Business Logistics in Modern Management*, Osijek, Croatia, p. 175- 188 12.
- Kolińska K., (2012), Warehouse space in Poland – analysis of the current state no. 6, p. 34-36.
- Kothari C.R (2007) *Research Methodology*, New age International (p) Ltd. Delhi
- McCarthy (2009) *Practice of Management 3<sup>rd</sup> Edition* Book Power Publisher Phoenix
- Kotler and Armstrong (2006) *Management Information in Marketing 3<sup>rd</sup> Edition* Peason School of management Publsihers Los Angeles USA

- Kovács, G., & Spens, K. M. (2006). Transport infrastructure in the Baltic States post-EU succession. *Journal of Transport Geography*, 14(6), 426-436.
- Lakshmanan, T. R. (2010). The broader economic consequences of transport infrastructure investments. *Journal of Transport Geography*
- Lambert, D. M. (2012) *Supply Chain Management: Processes, Partnerships and Performance*, Sarasota, Florida: Supply Chain Management Institute. *International Journal of Computer Applications (0975 – 8887) Volume 54– No.1, September 2012*
- Lewis, I., Semeijn, J., & Vellenga, D. B. (2010). Issues and initiatives surrounding rail freight transportation in Europe. *Transportation Journal*, 41(2/3), 23-31.
- Lolos, S. (2009). The effect of EU structural funds on regional growth: assessing the evidence from Greece. *Economic Change and Restructuring*, 42(3), 211-228.
- Lumsden, K. (2013) Quantitative models for reverse logistics: a review”, *European Journal of Operational Research*, 103(1), 1-17, 2013.
- MWANGI, S. M. (2016). Role of Just-In-Time in Realization of an Efficient Supply Chain Management: A Case Study of Bidco Oil Refineries Limited, Thika. *Strategic Journal of Business & Change Management*, 3(2).
- Mentzer, J, Gomes, R & Krapfel, R (1999), “Physical distribution service: a fundamental marketing concept; *Journal of the Academy of Marketing Science*, 17(1), 53-62, 1999
- Michael Armstrong (2006) *Human Resource Management Practices 9<sup>th</sup> Edition*, Kogan Limited, UK
- Muth, John A (1961). “Rational Expectations and the Theory of Price Movements.” *Econometrica* 29, no. 6 (1961): 315–335.
- Ndungu J. Wahome (2008) *Effects of reversal logistics on Beverage companies* unpublished thesis.
- Park JS, Seo Y-J (2016) The impact of seaports on the regional economies in South Korea: panel evidence from the augmented Solow model. *Transport Res E-Log* 85:107–119
- Paulraj, & Chen. (2007). “Strategic Buyer-Supplier Relationships. *Journal of Supply chain Management*, 2-14.
- Pfeffer, J, & Aldrich, H. E. (1976). *Environments of Organizations*. Annual review of sociology, 2, 79-105
- Pfeffer, J., & Salancik, G. R. (1978). *The External Control of Organizations: A Resource Dependence Perspective*. New York: Harper & Row
- Robinson, E.P. 2003) *Designing an integrated distribution system at Dow Brands, Inc*”. *Interfaces*, 23(3), 107-117.
- Roest, H (1997), Pieters, R, *The Nomological Net of Perceived Service Quality*, *International Journal of Service Industry Management Vol.8, 1997*.
- Sarmiento, A.M. (2009) A review of integrated analysis of production distribution systems *Transactions*, 31(11), 1061- 1074, 2009.
- Sheffrin, J and Steven M (1996). *Rational Expectations*. 2d ed. Cambridge: Cambridge University Press, 1996
- Stefansson G., (2012), *Business-to-business data sharing: a source for integration of supply chains*, *International Journal of Production Economics*, Vol. 75, Issue 1–2, p. 135–146
- Snieska, V., & Simkunaite, I. (2009). Socio-economic impact of infrastructure investments. *Inzinerine Ekonomika-Engineering Economics*, 3, 16-25.
- Sople V. Vinod (2007) *Logistic Management 3<sup>rd</sup> Edition* Dorling Kindersley (pvt Ltd) New Delhi
- Stock K, and Lambert W (2011) *Integrated production/distribution planning in supply chains: an invited review*”, *European Journal of Operational Research*, 115(2), 219-236, 1999.



- Sreeniva. M. and Srinivas T (2011) The role of transportation in logistic chain. *European Journal of Operational Research*, Vol. 94, 1-15.
- The World Bank. (2010). Connecting to Compete: Trade logistics in the global economy—The logistics performance index and its indicators. Washington: The World Bank.
- Timna daybah (2015) Impact of logistics and transport practices on performance of Kenya creameries in Kenya.
- Vikas, M. and Brown, L. (2009), 'Distribution redesign for marketing competitiveness', *Journal of marketing*, 73(2): 146–63. 19
- Vickerman, R., Spiekermann, K., & Wegener, M. (2009). Accessibility and economic development in Europe. *Regional Studies*, 33(1), 1-15.
- Vickery, S. and Droge, C. (2008), 'Relationship building, lean strategy and firm performance: an exploratory study in the automotive supply industry', *International Journal of Production Research*, 46(20): 5633–49.
- Waters Donald. (2013) Logistics and Introductions to supply chain management, Pal grades Macmillan, New York
- Whitworth, B & Demoor, R. (2001). Generating agreement in computer mediated groups. *Small Group Research*, 32(5), 621-661.
- Wren, (2007) B., Channel Structure and Strategic Choice in Distribution Channels, *Journal of Management Research*, Vol. 7, No. 2, pp 78-8
- Wihdat D, Yousef A, and Sang-H (2013). A Review on Long Distribution Channels Problems. *International Journal of Materials, Mechanics and Manufacturing*, Vol. 1, No. 1, February 2013
- Yamane, T. (1967) Elementary Sampling Theory. Prentice-Hall (Englewood Cliffs, N.J)
- Zheng, L., & Zhang, J. (2010). Research on Green Logistics System Based on Circular Economy. Beijing: xinum press.