



**INFLUENCE OF THIRD-PARTY LOGISTICS PROVIDERS ON SUPPLY CHAIN PERFORMANCE IN KENYA: CASE STUDY OF EAST AFRICAN BREWERIES LTD**

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**Accepted: October 6, 2017**

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**ABSTRACT**

*The purpose of the study was to determine the influence of third-party logistics providers on supply chain performance in Kenya with reference to East African Breweries Ltd. The target population of interest in this study was 278 staff at East African Breweries Ltd. To achieve the objectives of the study, both primary and secondary data was collected. The data was analyzed by both descriptive and inferential approaches using Statistical Package for Social Sciences software (SPSS). Data was collected through use of questionnaire instrument. The study will help among others, the manufacturers, importers, exporters, the government, Customs Services Department, port operators, logistics and supply chain organizations, clearing and forwarding agents, supply chain professionals and also further studies. The study found that the services they provided had improved supplier's performance. Respondents were asked if freight forwarding affected supply chain performance in East Africa breweries. 87% indicated yes while 9% indicated no and 5% were not. Respondents were asked if transportation services affected supply chain performance in East Africa breweries 91% indicated yes while 9% indicated no. The study recommended that there was need to strategically analyse the needs of the company and the non-core business so as to make informed decisions of the right logistics services to outsource. It's paramount to design appropriate logistics management practices in line with the organizations activities hence the improvement of transport efficiency could change the overall performance of the logistics system. Without the linking of transportation, a powerful logistics strategy cannot bring its capacity into full play.*

**Keywords:** Freight Forwarding, Transportation Services, Third Party Logistics Providers, Supply Chain Performance

## INTRODUCTION

The concept of third-party logistics providers (3PL) was derived from the need of getting another party to manage the logistics task of certain organizations (Nadarajah, 2015). The idea is to assign key logistics workloads to someone else who can do it in more effective and efficient manner. According to Gol and Catay (2007), third party providers implies manufacturers work on core competency and giving way for another company to get those products transported to the relevant customer. The outsourcing of logistic functions has been a great opportunity for many companies, which cite the operational efficiency, a greater flexibility, an enhanced service level and allowing manufacturers to focus on their primary business as the main benefits that can be obtained (Wang & Gong, 2014).

In developed countries, along with the trend to outsource non-core activities, companies have increasingly turned to third-party logistics providers (3PL) including the USA (Hofer, Knemeyer & Murphy, 2015) as well as in Europe (Ekeskar & Rudberg, 2016). Globalization and emerging technological advancements have led third party logistics (3PL) to become an important source of competitive advantage, especially for supply chain organizations, which explains its wide adoption in developed countries (Coyle et al., 2016). This impact together with the increasing need to serve customers efficiently and effectively and reduce the operation freight forwardings has prompted many firms to acquire the services of 3PL service providers (Forslund, 2015).

In the United Kingdom, Blanchard (2010) noted that the acquisition of 3PL service providers has enabled companies to improve packaging service through shorter shipment times. This has also seen productive gains through logistics being managed more effectively through the application of technology. Basu and Wright (2010) observed that the companies' flexibility to respond quickly

to changing market trends, changing business environments, and peak periods without major disruptions to distribution operations all emanated from experienced and qualified 3PL service providers the company had chosen to work with.

Things are not different in the developing countries of Africa. In South Africa for instance, Coca cola South Africa gives credit of its supply chain performances improvement to economies of scale through, volume shipping discounts, sharing resources and increased shipment visibility by the use of 3PL services (Drake, 2012). Similar results have also been seen in Uganda. According to Muhindo, Zhou and Mzuza (2014), Uganda Breweries Limited used 3PLs and this had resulted to have leveraging the relationships and volume discounts, which had resulted in lower overhead and the fastest possible service in the company.

In Nigeria, Adebambo and Toyin (2011) noted that the business environment had been undergoing unprecedented change and many companies have been seeking new ways to stand out from the competition by sustaining their competitive advantage. In today's highly competitive global marketplace, the pressure on organization's to find new ways to creating and delivering value to customers is growing stronger. ICT is today being applied in many organizations in Nigeria in a wide range and operations areas. Further, Adebambo and Toyin (2011) observed that there were strong relationships between ICT usage and logistics activities, although managers recognized the importance and need of ICT adoption for building and enhancing their competitive advantage, adoption of their ICT tended to reduce operating freight forwarding more than improve service levels.

In Kenya, the large companies utilize multiple logistics providers for their supply chain management which is not only freight forwarding run but also cumbersome to

management as it results to disconnects which are occasioned by various process handovers from one logistics provider to the other along supply chain (Mose, Njihia & Peterson, 2013). Further, several organizations seem indifferent on whether to fully outsource their logistics services to multiple logistics firms, or perform some of the logistics functions in-house or outsource all the logistics services to one larger logistics company or 3PL provider. These larger logistics firms offer a variety of logistics services which include warehousing, consolidation, packaging, goods inspection, and import/export advisory services as a package (Arnold et al., 2011). These 3PL providers can handle more than 5,000 containers per year and account for relatively for 60 percent to 80 percent of the taxes collected by Kenya Revenue Authority.

### **Statement of the problem**

The management of the complex network of parties forces organisations to outsource part or all of its supply chain management to professionals who are able to execute the tasks on their behalf while they concentrate on their core business. This again possesses a challenge to the organizations that outsource the services of 3PL providers in monitoring and measuring the performance to ensure efficient and effective performance of SCM. Handling performance management in supply chains is a complicated issue. Studies by Brewer and Speh, (2001) and Forslund (2015) show obstacles such as supply chain partners' conflicting objectives, poor IT support and a lack of trust. Larson and Gammelgaard (2001) point out various coordination obstacles, such as differing metrics definitions between 3PL providers and their customers.

Also Mortensen and Lemoine (2008) show IT-related obstacles to Performance improvements between 3PL providers and customers. But knowledge of the obstacles for performance management from the perspective of 3PL

providers is scarce, which is a gap in literature. It's not known if obstacles from studies in customer companies are similar to those in 3PL providers or if they struggle with other obstacles. Knowing the obstacles for performance management is a critical part of actually improving performance management in supply chains. An additional research question is, consequently, which obstacles for supply chain performance management are perceived by 3PL providers (Forslund, 2012).

With the increasing focus of business expansion into the global market, companies need to have an extremely lean, efficient supply chain to achieve successful integration into new markets. 3PL providers can help provide services to these companies, but also assist the more localized companies looking to cut operational freight forwarding or focus on core competencies. There are many advantages to outsourcing logistics services to third parties. The amount of services being offered by these logistics providers continues to grow each year. Today, 3PL's are more than just transportation providers; they are becoming involved in the long-term strategic direction of their client companies. The outcome of this study should therefore provide answers to the above raised gaps in a Kenyan context and help put into perspective the influence of third-party logistics providers in organization performance in supply chain management in Kenya.

### **Research Objectives**

The main objective of this study was to determine the influence of third-party logistics providers on supply chain performance in Kenya with reference to East Africa Breweries as study case. The specific objectives were:-

- To establish the effect of freight forwarding on supply chain performance in East Africa breweries.

- To determine the influence of transportation services on supply chain performance in East Africa breweries

## LITERATURE REVIEW

### Theoretical Review

#### Systems Theory

The Systems Theory was developed by the Austrian biologist Ludwig von Bertalanffy, in the 1930s. He originally named his idea "*Allgemeine Systemlehre*", and was later to be translated into English as "*General System Theory*". According to Desouza, Chattaraj, and Kraft, (2003) the theory focuses on the relationships and consequent arrangement, between the different constituent parts of a system. "Such relationships are fundamental to the concept of a system, considering that it is what forms the 'whole', and are in place to drive the system towards the accomplishment of a common, overall goal" (Desouza, Chattaraj, & Kraft, 2003).

According to Lewis (2005:174) Systems Theory is defined as a set of dynamic elements maintaining integrity via mutual interactions. Ludwig von Bertalanffy was aware of the differences distinguishing operating systems from one another; but he also believed that there was a general set of laws to rule the system as a concept, unconditionally of the differing constituent elements. "Although diverse disciplines encounter systems differently, general principles apply" (Lewis, 2005).

The underlying philosophy of Systems Theory is primarily about focusing on the relationship between the component parts, rather than dismantling a system into its comprising elements. The emphasis on the relationships, leads to the next finding, whereby the value of a system is not limited to the immediate sum of its constituent parts. It is rather the added value that results from the relationships, and what emerges as a result (Lewis, 2005). Based on the great importance attributed to the relationships, and "the 'wholeness' of a system, it can therefore be

concluded that the parts and the whole exist in reciprocity serving mutual survival and must be studied and understood as such" (Lewis, 2005).

The choice to apply the system theory to this study was to address the first objective of the study, the fact that the challenge being addressed concerns logistics. Taking into account that logistics is viewed as a system composed of several constituent parts, this approach provides suitable theoretical grounds to fragment the problem at hand by using the systems theory, according to Lewis (2005) freight forwarders can be interpreted as a set of dynamic elements maintaining integrity via mutual interactions.

#### Theory of Supply Chain Constraints

According to Goldratt and Goldratt (2004), the theory of constraints (TOC) is a management paradigm that views any manageable system as being limited in achieving more of its goals by a very small number of constraints. There is always at least one constraint, and TOC uses a focusing process to identify the constraint and restructure the rest of the organization around it. TOC adopts the common idiom "a chain is no stronger than its weakest link." This means that processes, organizations, etc., are vulnerable because the weakest person or part can always damage or break them or at least adversely affect the outcome.

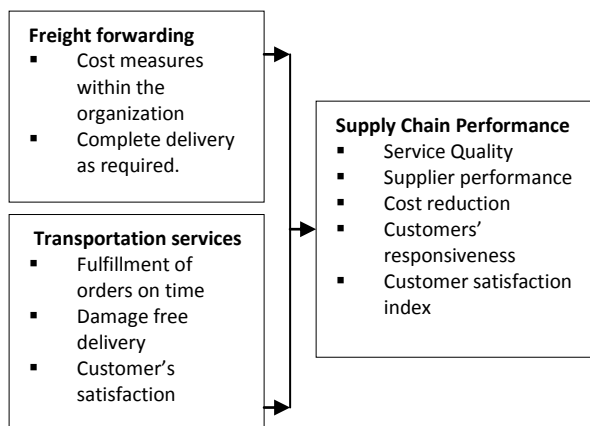
In reference to Tekin, Senol and Akman (2012), the underlying premise of the theory of constraints is that organizations can be measured and controlled by variations on three measures: throughput, operational expense, and inventory. Inventory is all the money that the system has invested in purchasing things which it intends to sell. Operational expense is all the money the system spends in order to turn inventory into throughput. Throughput is the rate at which the system generates money through sales.

Goldratt and Goldratt (2004) posited that before a supply chain can reach its targets, necessary conditions must first be met. These typically

include safety, warehousing services, legal obligations, etc. For most businesses, the goal itself is to make money. However, for many organizations and non-profit businesses, making money is a necessary condition for pursuing the goal. Whether it is the goal or a necessary condition, understanding how to make sound financial decisions based on throughput, inventory, and operating expense is a critical requirement. Theory of constraints is based on the premise that the rate of goal achievement by a goal-oriented system (i.e., the system's throughput) is limited by at least one constraint. Only by increasing flow through the constraint can overall throughput be increased.

The theory is important to the present study in that it will help the study to determine whether the East African Breweries supply commodities at the right quantities and at the right time. This is likely to affect the lead time. There are many ways that constraints can show up, but a core principle within TOC is that there are not tens or hundreds of constraints. There is at least one but at most only a few in any given system. Constraints can be internal or external to the system.

**Conceptual Framework**



**Independent Variables      Dependent Variable**

**Figure 1: Conceptual Framework**

**Freight forwarding and Supply Chain Performance**

In recent decades, access to cheap labour and raw materials, better financing opportunities, larger product markets, arbitrage opportunities, and additional inducements offered by host governments to attract foreign capital encouraged companies to extend their supply chains over the globe (Manuj & Mentzer, 2008). However, the success of these longer supply chains highly relies on the performance of the firms' logistics (Green, Whitten, & Inman, 2008). While logistics includes a wide range of activities, one of its fundamental elements is transportation (Bookbinder & Matuk, 2009).

The nature of supply chains requires efficient short and long-haul shipping of raw materials, components, and products between manufacturers, retailers and customers. In recent years, many companies have adopted new manufacturing and inventory management strategies that aim to reduce freight forwardings while improving responsiveness to market demands. However, these approaches demand for fast, and more importantly reliable, transportation. However, since transportation infrastructure has not kept pace with business growth, excess demand over the transportation network capacity has led to growing congestion and uncertainty in transportation lead-times. Congestion is also an issue in other modes of transportation (US DoT 2007, 2009).

Using more expensive modes of transportation translates to increase shipping service level expectation that demands for more sophisticated decision making that in turn requires better system-wide information. The advent of the Intelligent Transportations Systems provides opportunity for improvement in transportation performance and warehousing services. The core of Intelligent Transportations Systems consists of obtaining, processing, and distributing information for better use of the transportation system, infrastructure and services (Crainic,

Gendreau, & Potvin, 2009). This includes Geographical Positioning System, Automatic Vehicle Location System, Fleet Telematics System, Wireless Communication, Electronic Data Interchange, along with internet and other real-time data sharing systems that inform the decision maker about the location of the vehicles and freight and provide better understanding of the network status, especially, under congestion. The importance of logistics and its complexities are motivating companies to outsource their logistic operations in different levels to third parties known as “freight forwarders” to reduce freight forwarding and increase efficiency. Freight forwards generally act as an intermediary between shippers and carriers and are responsible for transporting goods in supply chains. Indeed, freight forwarding industry, as part of the broader supply chain management industry, is undergoing a profound transition with the rise of multinational freight forwarders based in Europe, the United States, and Japan that perform integrated logistics services in addition to simple freight forwarding with a range of value-added services (Bowen & Leinbach, 2004). However, despite the major integrators such as FedEx, UPS, DHL, BAX Global, majority of the freight forwarders are small- to mid-size companies. Due to high capital investment, schedules and capacities are usually fixed by carriers far in advance and therefore freight forwarders decide on freight routing and book the capacity based on their forecasted demand. A freight forwarder generates its profit from the difference between the price that a customer is obliged to pay for the execution of the requested service and the freight forwarding of the fulfilment of the request. Moreover, the nature of the freight forwarding industry, especially for small forwarders, is based on personal relations and long-term trust-building that requires meeting service level expectations and consistence in the warehousing services of service (Ahmad Beygi, Cohn, Guan, & Belobaba, 2008)

Accordingly, forwarders are challenged to conduct their business with the minimum possible freight forwarding while satisfying the shippers’ expectation in a competitive market. Achieving this goal requires a sophisticated decision making process that integrates all the related information to produce high warehousing services decisions for freight routing to satisfy the demand in a reasonable time window with minimum freight forwarding to generate profit. The goal of this research is to address this need in freight forwarding industry (Azadian, Murat, & Chinnam, 2012).

### **Transportation services and Supply Chain Performance**

The key element in a logistics chain is transportation system, which joints the separated activities. Transportation occupies one-third of the amount in the logistics freight forwarding and transportation systems influence the performance of logistics system hugely. Transporting is required in the whole production procedures, from manufacturing to delivery to the final consumers and returns. Only a good coordination between each component would bring the benefits to a maximum (Cooper, Lambert, & Pagh, 1997).

Logistics services comprise physical activities such as transport, storage as well as non-physical activities such supply chain design, selection of contractors, freightage negotiations. Most activities of logistics services are bi-direction. Information systems include modelling and management of decision making, and more important issues are tracking and tracing. It provides essential data and consultation in each step of the interaction among logistics services and the target stations. Infrastructure comprises human resources, financial resources, packaging materials, warehouses, transport and communications. Most fixed capital is for building those infrastructures. They are concrete

foundations and basements within logistics systems (Krumwiede & Sheu, 2002).

Transport system is the most important economic activity among the components of business logistics systems. Around one third to two thirds of the expenses of enterprises' logistics freight forwardings are spent on transportation. This analysis shows transportation is the highest freight forwarding, which occupies 29.4% of logistics freight forwarding, and then in order by inventory, warehousing freight forwarding, packing freight forwarding, management freight forwarding, movement freight forwarding and ordering freight forwarding. The ratio is almost one-third of the total logistics freight forwarding. The transportation freight forwarding here includes the means of transportation, corridors, containers, pallets, terminals, labours, and time. This figure signifies not only the freight forwarding structure of logistics systems but also the importance order in improvement processing. It occupies an important ratio in logistics activities. The improvement of the item of higher operation freight forwarding can get better effects. Hence, logistics managers must comprehend transport system operation thoroughly (Potrol, 2003).

Transport system makes goods and products movable and provides timely and regional efficacy to promote value-added under the least freight forwarding principle. Transport affects the results of logistics activities and, of course, it influences production and sale. In the logistics system, transportation freight forwarding could be regarded as a restriction of the objective market. Value of transportation varies with different industries. For those products with small volume, low weight and high value, transportation freight forwarding simply occupies a very small part of sale and is less regarded; for those big, heavy and low-valued products, transportation occupies a very big part of sale and affects profits more, and therefore it is more regarded. Transportation plays a connective role among the several steps that result in the conversion of resources into

useful goods in the name of the ultimate consumer. It is the planning of all these functions and sub-functions into a system of goods movement in order to minimize freight forwarding maximize service to the customers that constitutes the concept of business logistics. The system, once put in place, must be effectively managed (Thompson & Taniguchi, 2001).

Traditionally these steps involved separate companies for production, storage, transportation, wholesaling, and retail sale, however basically, production/manufacturing plants, warehousing services, merchandising establishments are all about doing transportation. Production or manufacturing plants required the assembly of materials, components, and supplies, with or without storage, processing and material handling within the plant and plant inventory. Warehousing services between plants and marketing outlets involved separate transport. Merchandising establishments completed the chain with delivery to the consumers. The Manufacturers limited themselves to the production of goods, leaving marketing and distribution to other firms. Warehousing and storage can be considered in terms of services for the production process and for product distribution. There have been major changes in the number and location of facilities with the closure of many single-user warehouses and an expansion of consolidation facilities and distribution centres. These developments reflect factors such as better transport services and pressures to improve logistics performance (Bowen & Leinbach, 2004).

The role that transportation plays in logistics system is more complex than carrying goods for the proprietors. Its complexity can take effect only through highly warehousing services management. By means of well-handled transport system, goods could be sent to the right place at right time in order to satisfy customers' demands. It brings efficacy, and also it builds a bridge between producers and consumers. Therefore, transportation is the base of efficiency and



economy in business logistics and expands other functions of logistics system. In addition, a good transport system performing in logistics activities brings benefits not only to service warehousing services but also to company competitiveness (Bookbinder & Matuk, 2009).

Without well-developed transportation systems, logistics could not bring its advantages into full play. A good transport system in logistics activities could provide better logistics efficiency, reduce operation freight forwarding, and promote service warehousing services. The improvement of transportation systems needs the effort from both public and private sectors. A well-operated logistics system could increase both the competitiveness of the government and enterprises.

#### METHODOLOGY

This study adopted a descriptive research design as it entails the collection of data in order to answer questions concerning the current status of the subject which is the role of third-party logistics providers in organization performance in supply chain management in Kenya. The target population of this study comprised senior managers, middle level managers and non-management staff of East African breweries. The sampling frame of this study was derived from the East African breweries database of 2017 in which the total population targeted by the study was. The study used questionnaires to collect data,

#### Freight Forwarding

**Table 1: Table showing if freight forwarding affect supply chain performance**

Category	N	Percentage
Yes	112	87%
No	11	9%
Not sure	6	5%
Total	129	100

Respondents were asked if freight forwarding affected supply chain performance in East Africa breweries 87% indicated yes while 9% indicated no and 5% were not sure as shown in table 1.

both paper based and online questionnaires. The data was analyzed by use of descriptive statistics.

#### FINDINGS AND DISCUSSIONS

The response rates of 79 % of the target population responded to the questionnaire while 21% represented those questions not filled or were in complete. The gender characteristics of respondents were dominated by males 58 % against females who were 42%. The respondents were asked to indicate their age. Results revealed that 10% of the respondents were between 18-23 years, 19% were between 22-35 years, 26% were between 36-41 and 135% were over 45 years. This implied that majority of the workers were in their middle age and had a bit of experience. The respondents were asked to indicate their level of education. Results revealed that 35% of the respondents had education up to the college level, 38%v indicated that they had attained education up to secondary level while 27% of the respondents indicated that they had attained education up to university level. This implied that employees are moderately educated. The respondents were asked to indicate how long they had served as employees. Results revealed that 46% of the respondents had worked for less than 5 years, 37% indicated that they had worked for between 5 - 10 years while 22% of the respondents indicated that they had served as staff for more than 10 years.

**Table 2: Table showing if freight forwarding influence freight forwarding measures on supply chain performance**

Category	N	Percentage
Yes	120	93%
No	9	7%
I'm not sure	0	0%
Total	129	100

Respondents were asked if freight forwarding influenced freight forwarding measures on supply chain performance in East Africa breweries 93% indicated yes and 9% indicated no as shown in table 2

**Table 3: Extent of freight forwarding influence on measures on supply chain performance**

Category	N	Percentage
Very Great extent	48	0.3721
Great extent	59	0.4574
Moderate extent	13	0.1009
Little extent	7	0.0543
Very Little extent	2	0.0155
Total	129	

Respondents were asked extent in which freight forwarding influenced freight forwarding measures on supply chain performance in East Africa breweries? as shown in table 3. A measure on a five point likert scale of very great extent, great extent, moderate extent, little extent and very little extent. The scores of strongly disagree and disagree were taken to represent a variable that had an impact to a little extent and very little extent equivalent to a percentage score of 0 to 0.05 on a continuous likert scale; ( $0 \leq$  little extent and very little extent  $\leq 5$ ). Scores of moderate

extent a percentage score of 0.06 to 0.12 on the continuous likert scale: ( $0.06 \leq$  moderate extent  $\leq 0.12$ ). The scores for both of very great extent, great extent were taken to represent a variable which had an impact to a large extent equivalent to a percentage score of 0.13 to 0.99 on a continuous likert scale; ( $0.13 \leq$  very great extent and great extent  $\leq 0.99$ ). 37% (0.4574) indicated very great extent, 45% (0.4574) indicated great extent, 13% (0.1009) indicated moderate extent while 5% (0.0543) indicated little extent and 2% (0.0155) indicated very little extent.

**Table 4: Table showing if freight forwarding influence complete delivery**

Category	N	Percentage
Yes	113	88%
No	11	9%
I'm not sure	5	4%
Total	129	100

Respondents were asked if freight forwarding influenced complete delivery on supply chain performance in East Africa breweries 88% indicated yes and 9% indicated no while 4% indicated not sure as shown in table 4.

**Table 5: Table showing the extent which freight forwarding influence complete delivery on supply chain performance**

Category	N	Percentage
Very Great extent	50	0.3876
Great extent	42	0.3256
Moderate extent	21	0.1628
Little extent	5	0.0388
Very Little extent	11	0.0853
<b>Total</b>	<b>129</b>	

Respondents were asked extent in which freight forwarding influenced freight forwarding measures on supply chain performance in East Africa breweries? as shown in table 5. A measure on a five point likert scale of very great extent, great extent, moderate extent, little extent and very little extent. The scores of strongly disagreed and disagreed were taken to represent a variable that had an impact to a little extent and very little extent equivalent to a percentage score of 0 to 0.05 on a continuous likert scale; ( $0 \leq$  little extent and very little extent  $\leq 5$ ). Scores of moderate

extent a percentage score of 0.06 to 0.12 on the continuous likert scale: ( $0.06 \leq$  moderate extent  $\leq 0.12$ ). The scores for both of very great extent, great extent were taken to represent a variable which had an impact to a large extent equivalent to a percentage score of 0.13 to 0.99 on a continuous likert scale; ( $0.13 \leq$  very great extent and great extent  $\leq 0.99$ ). 39% (0.3876) indicated very great extent, 33% (0.3256) indicated great extent, 16% (0.1628) indicated moderate extent while 4% (0.0853) indicated little extent and 9% (0.0853) indicated very little extent.

### Transportation Services

**Table 6: Table showing if transportation services affect supply chain performance**

Category	N	Percentage
Yes	118	91%
No	11	9%
I'm not sure	0	0%
<b>Total</b>	<b>129</b>	<b>100</b>

Respondents were asked if transportation services affect supply chain performance in East Africa

breweries 91% indicated yes while 9% indicated no as shown in table 6.

**Table 7: Table showing if transportation services influence fulfillment of orders on time**

Category	N	Percentage
Yes	120	93%
No	9	7%
I'm not sure	0	0%
<b>Total</b>	<b>129</b>	<b>100</b>

Respondents were asked if transportation services influenced fulfillment of orders on time in East

Africa breweries 93% indicated yes and 9% indicated no as shown in table 7.

**Table 8: Table showing the extent which transportation services influence fulfillment of orders on time**

Category	N	Percentage
Very Great extent	61	0.4729
Great extent	47	0.3643
Moderate extent	21	0.1628
Little extent	0	0.0000
Very Little extent	0	0.0000
Total	129	1

Respondents were asked extent in which transportation services influence fulfillment of orders on time in East Africa breweries? As shown in table 8. A measure on a five point likert scale of very great extent, great extent, moderate extent, little extent and very little extent. The scores of strongly disagree and disagree were taken to represent a variable that had an impact to a little extent and very little extent equivalent to a percentage score of 0 to 0.05 on a continuous likert scale; ( $0 \leq$  little extent and very little extent  $\leq$

5). Scores of moderate extent a percentage score of 0.06 to 0.12 on the continuous likert scale: ( $0.06 \leq$  moderate extent  $\leq 0.12$ ). The scores for both of very great extent, great extent were taken to represent a variable which had an impact to a large extent equivalent to a percentage score of 0.13 to 0.99 on a continuous likert scale; ( $0.13 \leq$  very great extent and great extent  $\leq 0.99$ ). 47% (0.4729) indicated very great extent, 36% (0.3643) indicated great extent, 16% (0.1628).

**Table 9: Table showing if transportation services influence damage free delivery**

Category	N	Percentage
Yes	113	88%
No	11	9%
Not sure	5	4%
Total	129	100

Respondents were asked if transportation services influenced damage free delivery in East Africa

breweries 88% indicated yes and 9% indicated no while 4% indicated not sure as shown in table 9.

**Table 10: Table showing the extent which customer's satisfaction influence transportation services**

Category	N	Percentage
Very Great extent	42	0.3256
Great extent	50	0.3876
Moderate extent	21	0.1628
Little extent	11	0.0853

Very Little extent	5	0.0388
Total	129	1

Respondents were asked extent in which customer's satisfaction influence transportation services on supply chain performance in East Africa breweries? as shown in table 10. A measure on a five point likert scale of very great extent, great extent, moderate extent, little extent and very little extent. The scores of strongly disagree and disagree were taken to represent a variable that had an impact to a little extent and very little extent equivalent to a percentage score of 0 to 0.05 on a continuous likert scale; (0≤ little extent and very little extent ≤ 5). Scores of moderate extent a percentage score

of 0.06 to 0.12 on the continuous likert scale: (0.06≤moderate extent ≤ 0.12). The scores for both of very great extent, great extent were taken to represent a variable which had an impact to a large extent equivalent to a percentage score of 0.13 to 0.99 on a continuous likert scale; (0.13≤ very great extent and great extent ≤ 0.99).33% (0.3256) indicated very great extent, 39% (0.3876) indicated great extent, 16% (0.1628) indicated moderate extent while 9% (0.0853) indicated little extent and 4% (0.0388) indicated very little extent.

### Supply Chain Performance

**Table 11: Supply Chain Management Performance in relation to 3PL**

Variables Supply Chain Performance	Mean	SD
Service warehousing services has improved in the last five years in the organization	4.431	0.563
The performance of our suppliers in the organization has improved in the last five years	2.463	0.784
The freight forwarding in supply chain have reduced significantly in the last five years	4.732	0.243
We have seen an increase in customers for the past five years	4.605	0.843
The customers satisfaction index has improved in the last five years	3.342	0.785

The researcher sought to establish the role of third-party logistics providers in organization performance in supply chain management, the respondents were instructed to respond to the statements on a 5 point Likert scale and indicated the extent they agreed with the statements that is: 5-Strongly agree, 4-Agree, 3-Not Sure, 2-Disagree, 1-Strongly disagree. A mean (M) score of 0-1.5 meant that the respondents strongly disagreed, between 1.50 to 2.50 means they disagreed, 2.50 to 3.50 means the respondents were not sure, 3.50-4.50 means they agreed, and a mean above 4.50 means the respondents

strongly agreed. Based on the findings on table 4.28: service warehousing services has improved in the last five years in the organization (M=4.431; SD= 0.563), the performance of our suppliers in the organization has improved in the last five years (SD=2.463; SD=0.784),The freight forwarding in supply chain have reduced significantly in the last five years (M=4.732;SD=0.243);respondents have seen an increase in customers for the past five years (M=4.605;SD=0.834).The customer's satisfaction index has improved in the last five years (M=3.342;SD=0.785).The findings agrees with

Kotler (2010) who pointed out that the satisfaction means one person's sense of disappointment or sense of joyfulness by comparing his perceptive effect to the service or product with his expectation. In today's any business management strategy customer satisfaction is accepted as one of the most important element. In an economically challenging environment understanding customers and providing outstanding value and satisfaction, even to the point of above expectations, is essential because survival is increasingly difficult across a whole range of businesses (Ryding, 2010). Why customer satisfaction should lead to better performance; there are many reasons. High customer satisfaction should indicate insulation of current customers from competitive efforts, lower freight forwarding of attracting new customers, lower freight forwarding of future transactions, increased loyalty from the customers, enhanced goodwill for the firm and reduced failure freight forwarding. Customer satisfaction can also be done by efficient packaging services by third party logistic service providers on behalf of the company by providing reverse logistic services. Providing after sales services at door step of customer within no time on customer's single phone or single email should be sufficient enough to respond back to customer immediately.

## **CONCLUSION AND RECOMMENDATIONS**

On freight forwarding, the study found out that outsourcing of 3PL had reduced the freight forwarding of distribution of products to the market and that it enhanced efficient delivery of goods in the intended markets. The respondents also agreed that the 3PL service provider ensured that the company products get to the market at the right time and it also enhanced efficient tracking and tracing of goods. On overall the respondents reported that transportation services influenced supply chain performance to a great extent. The regression analysis results showed a positive and statistically significant association

between freight forwarding and supply chain performance.

On transportation services, there was access to expertise in the logistics field that the company did not have; and had increased access to world-class resources, processes, services, and technologies. The respondents indicated that third party logistics services helped the company eliminate infrastructure capital and investment; helping the company invest the capital in other core areas

On the extent to which 3PL had enhanced supply chain performance, the study found that the services they provided had improved suppliers performance. However, the respondents reported that the 3PL services provided had improved the company's ability to respond to changing customer needs; had helped reduce freight forwarding in the supply chain. On the other hand, the respondents stated that outsourcing logistics operations to a 3PL provider had improved customer satisfaction through accurate, well-managed inventory and supply chain solutions.

## **Conclusions**

This study concluded that third party logistics providers really had important position in any company. Third party logistics providers were really helpful to enhance the customer satisfaction and to integrate the different processes of supply chain by using advanced tools of information technology. Logistics operations could be outsourced to reduce the capital investments and to concentrate towards other important issues of the company. 3PL had significant role in supply chain integration and had greater impact on customer satisfaction.

This study reflected that customer satisfaction level can be increased by using 3PL. Also the study found that third party logistics service providers

were really helping in improving the company's logistics efficiency to enhance the customer satisfaction to integrate supply chain. It meant putting together different processes of supply chain to make it much more efficient and effective. Third party logistics service providers also helping companies in their transportation/distribution, packaging services, planning and reduction in operational budget and providing value added services to enhance customer satisfaction level. This study may help organizations and 3PL's to enhance the customer satisfaction level with the help of advanced information technology to maintain their competitive position in the market. This study also motives researchers to work more on logistics outsourcing

### **Recommendations of the Study**

This study recommends that organizations recognize the potential contribution of 3PL firms and take advantage of opportunities to address organizational needs. There is need to strategically analyse the needs of the company and the non-core business so as to make informed decisions of the right logistics services to outsource. These involve the various freight forwarders available to provide services to their customers. Freight forwarding agents are engaged to advise shippers on the best way of shipping cargo. Freight forwarders should have better contacts and access to public officials at receipt and forwarding points. Distribution is performed better. Client freed from industrial relations issues with transport staff than can affect receipt and delivery of goods. Costs are cheaper for client

The highest contribution of freight forwarding among the related elements in logistics systems; hence the improvement of transport efficiency could change the overall performance of the logistics system. Without the linking of transportation, a powerful logistics strategy cannot bring its capacity into full play.

It's paramount to design appropriate logistics management practices in line with the organizations activities Transportation plays an important role in logistics system and its activities appear in various sections of logistics processes. Also transportation contributes the highest freight forwarding among the related elements in logistics systems; hence the improvement of transport efficiency could change the overall performance of the logistics system. Without the linking of transportation, a powerful logistics strategy cannot bring its capacity into full play

The objective of logistics is to facilitate the flow of material across the supply chain of an enterprise so as to cost effectively make available the right place at the right time. Logistics has to achieve two polemic goals of customer satisfaction and least cost. This is possible only when all the logistics functions are working as a unified system to achieve the common goal. This can be achieved through route planning, mode selection and vehicle scheduling.

Based on the findings of the study, good supply chain performance has a positive impact on performance of third party logistics. The management of EAB should emphasis on good supply chain management strategies so as to ensure continuous performance of third party logistics. Specifically, the management should ensure that there exist good supplier identification strategies, good supplier assessment strategies and good supplier evaluation strategies..

The supply chain strategy must be aligned with overall corporate strategy and supply performance goals must be stated in operational terms such as: projected and service support, sales and service support, sales volume, profitability, Inventory turns, return on investment. The supply chain strategy includes decisions regarding intensity of distribution, use of direct or indirect channels, and services for intermediaries in each area as well as

implementation plan. The firm's management must become involved in the supply chain design process.

### **Areas for Further Study**

Further studies can be done on the influence of third-party logistics providers on supply chain performance in Kenya. This would be of great relevance for comparison purposes. Such a study can help to identify whether there are other third-party logistics providers on supply chain that

influence supply chain performance. The research study was limited to the influence of third-party logistics providers on supply chain performance in Kenya, in connection to this limitation; it is possible to carry out further research how the issues look like in other sectors. The current study found that the variables considered; freight forwarding, transportation services and supply chain performance could be due to other factors beyond the scope of the current study. Further research is recommended on factors.

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