Journal of International Business, Innovation and Strategic Management
Vol 1 Issue (5), 62- 84
ISSN: 2617-1805 (Print)

FACTORS INFLUENCING IMPLEMENTATION OF LOGISTICS SERVICES OUTSOURCING AMONG MANUFACTURING FIRMS IN KENYA: A CASE OF EABL

Lilian Nyang'ate Ogero [1] & Dr. George Ochiri [2]

[1 & 2] Department of Entrepreneurship and Procurement, Jomo Kenyatta University of Agriculture and Technology

Corresponding Author email: lilynneogero@gmail.com

To cite this article:

Ogero, L. & Ochiri, G. (2018). Factors Influencing Implementation of Logistics Services Outsourcing among Manufacturing Firms in Kenya: A Case of EABL, *Journal of International Business, Innovation and Strategic Management*, 1(5), 62 - 84

Abstract: This study sought to establish the factors influencing implementation of logistics services outsourcing among manufacturing firms in Kenya by focusing on a case of East African Breweries limited. The main focus was on top management support, technological investment, regulatory framework and supplier relationship management. The study adopted a descriptive research design. The target population was 100 respondents out of which a sample size of 92 was adopted for this study. A random sampling methodology was adopted. The data was collected through a structured questionnaire which gave quantitative data that was analyzed through descriptive, correlation and regression analysis using statistical package for social sciences version 21. The findings revealed that top management support has a positive and significant influence on implementation of logistic services in the manufacturing sector. However, provision of direction in regard to logistics services outsourcing and timely disbursement are moderately practiced. The study recommends that manufacturing firms should aim to practice more of this technological investment practices so as to realize more benefits of logistics service outsourcing. The findings revealed that supplier relationship management has a positive and significant influence on implementation of logistic services in the manufacturing sector. Despite this being the case, there are some supplier relationship management practices that are less practiced in the manufacturing firms such as development of the service provider through technical assistance and financial support. Based on this, this study recommends manufacturing firms to practice more of this supplier relationship management practices so as to realize more benefits of logistics service outsourcing. The findings indicated that the relationship between regulatory framework and implementation of logistics outsourcing is positive but not significant. The study recommends a need to improve regulatory framework practices such as setting of the Key Performance Indicators as well as service level agreement at the onset of the contract with the service provider, regular performance evaluation on the logistics service provider and sharing of risks and reward evenly with the service provider which might lead to a positive and significant improvement in the implementation of logistics service outsourcing at EABL.

Key Words: *Top Management Support, Technological Investment, Regulatory Framework, Supplier Relationship Management, Logistics Services Outsourcing*

Introduction

In order to ensure the success of using contract logistics, certain additional factors are to be considered during and after the implementation of the outsourcing process. The first and foremost is that decision to outsource must come from the top management. Communication between logistics users and providers which is essential for the coordination of internal corporate functions and outsourced logistics is also a very important factor in this respect (Knemeyer, Corsi & Murphy, 2013). Firms need to specify clearly to service providers their role and responsibilities as well as their expectations and requirements. Internal communication is also equally important. It has been asserted that managers must communicate exactly what they are outsourcing and why then get the support of every department (Jharkharia & Shankar, 2007). Selviarid and Spring (2010) emphasize the importance in educating management of the benefits of contract logistics. Management needs to be convinced to try outsourcing and view it as a strategic activity.

Success of outsourcing depends on a user-provider relationship based on mutual trust and faith. This does not imply that control measures are redundant, firms should mandate periodic reporting by the service providers (Marasco, 2010). The need to select third parties wisely and maintain control while building trust is very important. Any deal must be tied to internal controls that link all payments to invoices, bills of lading, or purchase orders (Knemeyer, Corsi, & Murphy, 2013). A crucial aspect of successful outsourcing linking to trust is that users ought to be willing to part with proprietary information, which can help a capable third party to reduce total logistics costs (Caunhye, Nie & Pokharel, 2012). On the other hand, service providers have the responsibility and obligation to protect users' sensitive data on products, shipments and customers. According to Pokharel and Mutha (2009) there are several other critical factors that make outsourcing work. They include focus on the customer; establishing operating standards and monitoring performance against those standards; knowing the payback period, benefits expected by the firm, and the means to achieve those benefits. Factors, such as being aware that outsourcing may require a longer term of service than the firm is used to and building information systems that will allow the firm to make ongoing cost/value comparisons, are also critical.

However, for Jayaram and Tan (2010), understanding each other's cultures and organizational structure to ensure a good match, and knowing logistics strategy, that is understanding the logistics function's role in meeting the business objectives of the firm for example differentiation or low cost) are the most important factors for successful outsourcing. The business objectives of the firm may dictate the extent to which it will use partners: outsource a single function or outsource all key functions. The importance of the human factor in outsourcing also cannot be undermined. The firm must involve the people currently providing the logistics service since their expertise enables them to facilitate the transition from in-house logistics to third-party logistics. Furthermore, they must be given an opportunity to move with the function if outsourcing is implemented, proving how valuable they can be. However, there is the risk that the fear of getting retrenched due to outsourcing of a function may prompt current employees to sabotage the process (Bayraktar, Demirbag, Koh, Tatoglu & Zaim, 2009).

The success criteria needed to establish sustainable partnerships in the area of contract logistics are the various relationships between the people involved. Open and honest environment, key management, coherent and effective internal measurement systems, mutual respect and empathy, commitment to investment, and financial and commercial arrangements are of particular importance in this aspect. For Jayaram and Tan (2010), it is evident that, to make contract logistics work, a high level of commitment and resolution is needed on the part of the buying firms. Management must examine critically each of these success factors to determine how they can be put into practice. Only then firms can truly harness the benefits of outsourcing and to develop long-term partnerships that manifest the many advantages that are possible with the use of third-party logistics

Statement of the Problem

Kenya has a good number of successful companies that use 3PL service providers. Companies such as East African Breweries Limited, Kenya Airports Authority, Kenya Pipeline Company use 3PL to coordinate and integrate their supply chain operations. Relationships issues, how to share resources, property rights and confidentiality of the information are some of the issues that have arisen overtime (Rao & Young, 2013). Kenya‘s logistics performance had deteriorated in recent years. From an overall global ranking of 76th in 2007, it was then 122ndout of 155 countries on the Logistics Performance Index (World Bank, 2013). Low logistics efficiency was a key concern and business risk for companies importing to or exporting from Kenya as well as the logistics service providers involved (Kenya Shipping Council, (KSC, 2013).Third-Party Logistics report suggested that 90% of customers in Asia Pacific considered logistics outsourcing as successful with 20% concluded as extremely successful. This report quoted three factors as the drivers of logistics outsourcing success that include strong relationship, strong contract and measurable and attained metrics. The report however also revealed that there are several challenges to logistics outsourcing, among others include commitment issues (51%), lack of continuous improvement (42%) and information technology capabilities issues (39%).

Hsiao (2010) study analysis pointed out that companies outsourced logistics services because they do not own suitable transport vehicle which is one of the factors lacking in the firm‘s physical asset, but never mentioned in the research the influencing factors that lead to successful outsourcing of logistics services. In their logistics outsourcing study, Wilding and Juriado (2004) found that cultural incompatibility and poor communication could lead to failure of a logistics outsourcing initiative. A study by Langley (2015) on the state of logistics outsourcing revealed that the total logistics cost of the companies reduced from 44% to 36% as a result of outsourcing logistics services. From the recent researches as illustrated above there is little literature if any on the factors influencing successful outsourcing of logistics services. Some researchers have narrowly researched on the success of logistics services globally example in Asia and Northern Europe, Wilding and Juriado (2004) since concentration is only on three factors but no much research work has been done in Kenya to determine the factors that leads to almost or 100%success level of outsourcing logistics services with the outsourcing organization achieving its objectives such as cost reduction, profitability and increased market share. It is therefore with this gap that this study sought to establish the factors influencing implementation of logistics services outsourcing among manufacturing firms in Kenya by focusing on a case of EABL

Research Objectives

i. To establish the influence of top management support on implementation of logistics services outsourcing among manufacturing firms in Kenya.
ii. To assess the effect of technological investment by parties involved on the implementation of logistics services outsourcing among manufacturing firms in Kenya.
iii. To analyze how supplier relationship management influence the implementation of logistics services outsourcing among manufacturing firms in Kenya.
iv. To determine how the regulatory framework influence the implementation of logistics services outsourcing among manufacturing firms in Kenya.

Theoretical Review

Mintzberg's Management Role theory

Management expert Professor Henry Mintzberg has argued that a manager's work can be boiled down to ten common roles. According to Mintzberg, these roles, or expectations for a manager's behavior, fall into three categories: informational (managing by information), interpersonal (managing through people), and decisional (managing through action). Top management support refers to the extent to which top managers in the organization provide direction, authority, and resources during and after the acquisitions of IT systems, including ERP systems. Conventional wisdom suggests that when top managers support an IT project publicly, other organizational members usually interpret such moves positively and act accordingly. There are different responsibilities (Liu, 2010, Basseler, 2001). Top manager are involved with long term organizational goals, whereas lower level managers-operational mangers are involved in short term goals firefighting and conflict management (Luthana, 1992) Managers are entrusted to make key decisions in accompany. In this case the management ought to support the decision or idea of outsourcing for the course to be successful.

The Resource Based View

RBV theory views the firm as a bundle of resources (Penrose, 1959), according to its principles, an organization must secure an efficient bundle and flow of the right type of resources from its environment in order to survive and improve its operational performance. Both the outsourcing user and outsourcing provider must guard against wandering from their core competencies in directions that detract from their ability to create value (Prahalad & Hamel 1990). This theory rests on two key points. First, that resources are the determinants of firm performance and second, that resources must be rare, valuable, difficult to imitate and non-substitutable by other rare resources to create a competitive advantage (Priem & Butler, 2001). Accordingly, RBV is particularly appropriate for examining logistics outsourcing because firms essentially use outsourcing as a strategy for gaining access to other firms' valuable resources. Firms develop dynamic capabilities to adapt to changing environments; they develop firm-specific resources and then renew them to respond to shifts in the business environment.

According to RBV, outsourcing is a strategic decision, which can be used to fill gaps in the firm's resources and capabilities (Malhotra & Grover, 1998). In this case we focus on the companies involved investing on technological investment. Technology will enable the companies achieve a mileage over competitors and thus successful outsourcing. This comes with advantages on track and trace advantages, ERP systems so that

communication is efficient. Outsourcing can also be viewed as a resource-providing contract in which the client provides a market outlet for the service offering, and may even supervise and supply key inputs to the relationship with the logistics service provider.

Categorical Model for Suppliers Competence

Supply management is about creating and leading the supply chain to ensure continuity of supply with better service and more involvement for suppliers to provide our customers unexpected results. Supplier relationship management is all about having a good understanding between the logistics service provider and the consumer of the service. Supplier Relationship Management (SRM) is a comprehensive approach to managing and capturing the post contract value from key business relationships. SRM enables procurement to operate at a strategic level and by adopting a more collaborative approach and developing a closer relationship; this generates more value from the relationship in terms of innovation and efficiency. However, this does involve more time therefore assessment should be carried out as to whether the potential value is greater than the cost of the time required. This relationship is developed over time through many ways starting from the point where supplier selection is done. Many authorities agree that supplier evaluation is a critically important element of supply management processes and that we ought to be able to do it better, faster and with fewer resources (Handfield & Bechtel, 2007). There are several supplier selection methods available in the literature. Some authors propose linear weighting models in which suppliers are rated on several criteria and in which these ratings are combined into a single score. These models include the categorical, the weighted point and the analytical hierarchical process. Total cost approaches attempt to quantify all costs related to the selection of a vendor in monetary units, this approach includes cost ratio and total cost of ownership (Wang, 2002). Of all the methods, categorical method is considered the best as it relies heavily on the experience and ability of the individual buyer. People in charge of purchasing, quality, production, and sales all express their opinions about the supplier's performance on the basis criteria which are important to them. These departments assign either a preferred, unsatisfactory, or neutral rating for each of the selected attributes for every contending supplier. At periodic evaluation meetings, the buyer discusses the rating with department members. The buyer then determines the supplier's overall scores (Nicholson, Compeau & Sethi, 2009).

Principal Agency Theory.

The Principal Agency Theory (PAT) This theory is based on the separation of ownership and control of economic activities between the agent and the principal. Various agent and principal problems may arise including conflicting objectives; differences in risk aversion, outcome uncertainty, and behavior based on self-interest, and bounded rationality. The contract between the principal and the agent governs the relationship between the two parties, and the aim of the theory is to design a contract that can mitigate potential agency problems (Herbert et al., 2007). The "most efficient contract" includes the right mix of behavioral and 14 outcome-based incentives to motivate the agent to act in the interests of the principal (Logan, 2000). Creating contracts with supply chain partners that balance rewards and penalties, misalignment can be mitigated (Narayanan & Raman, 2004; Baiman & Rajan, 2002). Balancing the need of the shipper and the capability of the TPL provider is a well-known managerial issue that explicitly implies the risk of agency problems (Hertz & Alfredsson, 2003).

The PAT suggests an "inter-firm contracting perspective" on TPL, focusing on the design of an efficient contract between the buyer and seller of logistics services. The idea is to develop the most efficient combination of outcome and behavioral incentives in the contract between the shipper and the TPL provider (Herbert, 2007). The extent to which the TPL provider's performance can be measured and controlled has a great effect on whether the provider is paid by actual performance (such as number of orders picked, packed, and shipped to the customers) or according to behavioral outcomes (such as salaries, hours, and/or miles). Not all aspects can be covered ex ante in the contract. Therefore, the issue of contracting should be a revisiting issue in TPL relationships (Herbert, 2007). Thus, the food and beverages manufacturing firms can use the PAT theory to mitigate on logistics risks and achieve the optimal value of the outsourced services from the 3PL firms. Because theory provides a useful tool to respond to transaction cost dilemmas through contractual and non-contractual remedies in logistics, it is critical for managers to understand and mitigate logistics challenges associated with behavior uncertainty, relationship management, collaboration and uncertainty in logistics management.

Conceptual Framework

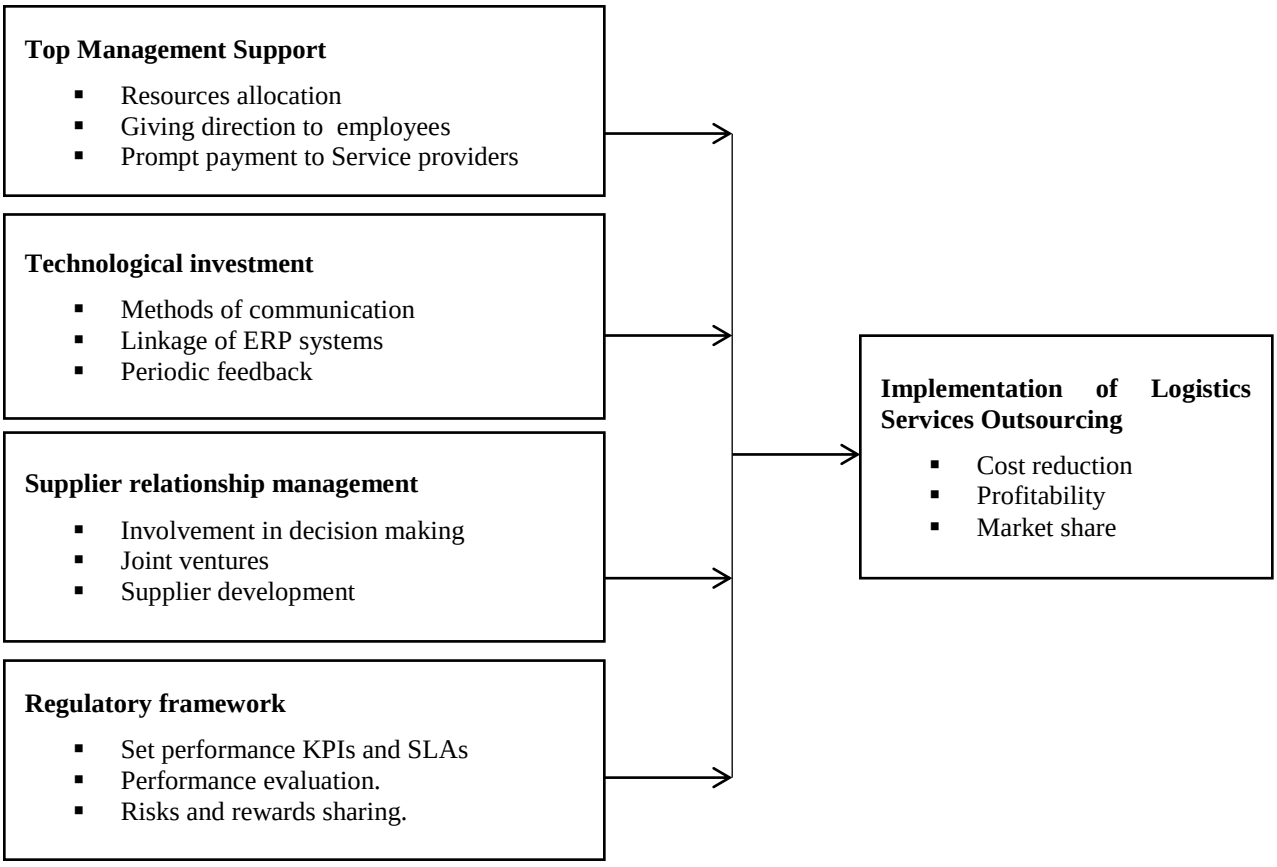

Figure 1 Conceptual Framework

Research Methodology

This study used quantitative research design. The target population for this study was the employees of East African breweries limited which is one of the manufacturing firms in Kenya. The sampling frame of the study was a list of 100 respondents from procurement, Finance, Logistics and administration departments. The study respondents comprised of 100 respondents. The list was obtained from the office of the human resource department. A probability sampling methodology was used to select 92 respondents. The data was collected through structured questionnaires. The study used drop and pick method to collect which allowed the respondents to respond at their free time. A pilot test was conducted on 5 (5%) people who were not included in the final survey.

Quantitative data was analyzed by employing descriptive statistics and inferential analysis using statistical package for social science (SPSS).The findings was presented using frequency distribution tables, bar charts and pie charts for easier understanding. A multiple linear regression model was used to establish the effect of top management support, technological investment, supplier relationship management and regulatory framework on the implementation of logistics services outsourcing among manufacturing firms at EABL. The model was expressed as follows: $Y=a+B_1X_1+B_2X_2+B_3X_3+B_4X_4+ ε$ where Y = Implementation of Logistics Services Outsourcing a= Constant (Co-efficient of intercept), X_1 = Top management support, X_2 =Technological investment, X_3= Supplier relationship management, X_4= Regulatory framework and ε. = error term. B_{1-4}= Regression co-efficient of four variables

Results

A total of 92 questionnaires were administered to the employees of East African breweries limited which is one of the manufacturing firms in Kenya. A total of 63 questionnaires were dully filled and returned which represented a response rate of 69%. This response rate was adequate since according to Baruch (2009) a return rate of 50% is acceptable to analyze and publish, while 60% is good and above 70% is very good.

Demographic Characteristics

The study sought to establish the respondents work department, employment level and work experience.

Table 1 Demographic Characteristics

Demographic Characteristics	Category	Percentage
Respondents Employment Level	Top level	33%
	Middle level	38%
	Lower level	29%
Respondents Work Experience	Less than 5 years	62%
	Over 5 years	38%

Descriptive Results on Top Management Support

The study sought to establish the influence of top management support on successful outsourcing of the logistics services among manufacturing firms in Kenya. The findings indicated that the respondents agreed that the management provided necessary financial resources for logistics services outsourcing to a very great extent (Mean = 4.62), provided the necessary human resources for logistics services outsourcing to a great extent (Mean = 4.88) and provide direction in regard to logistics outsourcing services to a moderate extent (Mean=3.37). The findings indicated that the respondents agreed that the logistics service providers are paid promptly or as per agreed terms to a moderate extent (Mean = 3.16) as well as timely disbursing funds to a moderate extent (Mean = 3.49). On average, it was established that there is provision of top management support towards implementation of logistics outsourcing to a great extent (Average Mean = 3.90).

These findings implies that among the top management support practices that are practiced to a high extent at EABL is financial resources support and human resources support while provision of direction in regard to logistics services outsourcing and timely disbursement are moderately practiced. The above findings are consistent with Kemunto and Ngugi (2014) whose research showed that leadership and management support in terms of supporting collaborative relationships between a company and its suppliers, facilitating transparent negotiations and also long term relationships and financial support leads to better implementation of policies such as outsourcing service policy.

Table 2 Descriptive Results on Top Management Support

Statement	Mean	Std Dev
Provision of financial resources	4.62	0.79
Provision of human resources	4.88	0.53
Unity of direction to the employees	3.37	1.14
Prompt payments to service providers	3.16	1.22
Timely disbursement of funds.	3.49	1.31
Average	**3.90**	**1.00**

Descriptive Results on Technological Investment

The study sought to assess the effect of technological investment by parties involved on the successful outsourcing of the logistics services among manufacturing firms in Kenya. The findings revealed that on average, the respondents agreed that the company has invested in technology for efficient logistics services management (Mean = 3.90). The respondents further moderately agreed that there is a consistent periodic feedback from the service providers (Mean = 3.41) while at the same time, they agreed that there is a consistent periodic feedback from the consumers of the service (Mean = 4.02).

The findings further revealed that the respondents moderately agreed that the company has properly linked the ERP systems for easy communication and share of critical information (Mean = 3.29) and that its able to track consignments from the supplier to the end user/consumer (Mean = 3.40). On average, the findings revealed an agreement with statements on technological investment (Average Mean = 3.60). The findings imply agreement that there is investment in technology for efficient logistics services management, there is consistent periodic feedback from the service providers as well as consumers of the service. However, there is less practice of properly linking the ERP systems for easy communication and share of critical information as well as tracking consignments from the supplier to the end user/consumer. These findings are consistent with Ehie (2011) who argued that a truly global 3PL makes regular investments in technology to support the unique supply chain strategies posed by different regions of the world and that investment in technology is a key success factor in logistics services outsourcing.

Table 3 Descriptive Results on Technological Investment

Statement	Mean	Std Dev
Organization Investment in technology for efficient logistics services	3.90	1.35
Consistent periodic feedback from the service providers	3.41	1.53
Consistent periodic feedback from the consumers of the service.	4.02	1.39
Properly linking of the ERP systems for easy communication and share of critical information	3.29	1.42
Ability to track consignments from the supplier to the end user/consumer.	3.40	1.16
Average	**3.60**	**1.37**

Descriptive Results on Supplier Relationship Management

The study sought to analyze how supplier relationship management influences the successful outsourcing of the logistics services among manufacturing firms in Kenya. The findings revealed that on average, majority of the respondents agreed that all the involved parties are always engaged in major decision making (Mean = 3.68), the logistics service provider and the organization always engage in joint ventures (Mean = 3.76) and the organization always aims at developing the service provider through financial support (Mean = 3.53). The findings also revealed that the respondents agreed that the organization always aims at developing the service provider through process improvement support (Mean = 3.83) but moderately agreed that the organization always aims at developing the service provider through technical assistance (Mean =3.48). On average, the respondents agreed with statements on supplier relationship management (Average Mean = 3.65).

The findings imply that there is engagement of all the involvement parties in major decision making, engagement of the logistics service provider and the organization in joint ventures and development of the service provider through financial support and process improvement support. However, development of the service provider through technical assistance is less practiced. The findings are consistent with Tian, Lai and Daniel (2008) who argued that some of the supplier relationship management practices that are key to logistics service outsourcing success are joint activities, the organization developing the service provider and to some extent financing the SP.

Table 4 Descriptive Results on Technological Investment

Statement	Mean	Std Dev
All the involved parties are always engaged in major decision making	3.68	1.32
The logistics service provider and the organization always engage in joint ventures	3.76	1.33
The organization always aims at developing the service provider through technical assistance	3.48	1.20
The organization always aims at developing the service provider through financial support	3.53	1.32
The organization always aims at developing the service provider through process improvement support	3.83	1.33
Average	**3.65**	**1.30**

Descriptive Results on Regulatory Framework

The study sought to determine how the regulatory framework influences the successful outsourcing of the logistics services among manufacturing firms in Kenya. The findings revealed that on average, the respondents agreed with the statement that at the onset of the contract with the service provider Key Performance Indicators are set (Mean = 3.68), there is regular performance evaluation on the logistics service provider (Mean = 4.62) and that at the onset of the contract with the service provider and service level agreement were set (Mean = 4.79). The findings further revealed that the respondents agreed that risks and reward are always shared equally (Mean = 4.79) and that there is regular evaluation of the service provided by the logistics service provider (Mean = 4.79). On average, there was agreement with statements on regulatory framework (Mean = 4.21). The findings imply that there is setting of the Key Performance Indicators as well as service level agreement at the onset of the contract with the service provider, regular performance evaluation on the logistics service provider and sharing of risks and reward evenly with the service provider. The findings are consistent with Hsiao, Kemp, Van der Vorst & Omta, (2010) who argued that regulatory frameworks that entail regular performance evaluation, to mention a few, are one of the major factors to measure the success and maintain the achievement after outsourcing starts.

Table 5 Descriptive Results on Technological Investment

Statement	Mean	Std Dev
Key performance indicators are set at to onset of the contract	3.68	0.92
Regular performance evaluation on the logistics service provider	4.62	0.79
Service level agreements are set at onset of the contract.	4.79	0.41
Risks and reward are always shared equally.	4.62	0.79
Regular evaluation of the service provided by the logistics service provider	4.79	0.41
Average	4.21	0.66

Descriptive Results on Implementation of Logistics Services Outsourcing

The respondents were asked to state the percentage to which the organizational performance has changed in relation to cost reduction, profitability and market share as a result of successful logistic services outsourcing. The findings revealed that on average, the respondents indicated that operational cost reduction has been experienced to the tune between 14 and 60% (Mean = 3.33), profitability has increased by between 0 to 20% due to logistics services outsourcing (Mean = 1.34) and that company returns has increased by between 21% and 40 % due to logistics services outsourcing (Mean = 1.98). These findings are consistent with the findings of a study by Langley (2015) who revealed that logistics outsourcing greatly reduced the operational costs of a firm by a high percentage from 44% to 33%.

It was also shown that the market share of the company has changed by between 0-20% due to logistics services outsourcing (Mean = 1.46) and that the company has experienced logistics cost reduction by between 21% and40% due to logistics outsourcing. On average, there has been a change in performance indicators by between 21% and 40% as a result of logistics outsourcing (Average Mean = 2.09). The findings imply that implementation of logistics service outsourcing has led to an improvement in performance indicators regarding operational costs, logistical costs, market share and company's profitability. The change is however, small. The findings are consistent with Agrawal, Singh and Murtaza (2015) who argued that by outsourcing, many companies can improve service levels at a reduced cost, especially given today's competitive environment and enhance their performance in terms of market share and profits.

Table 6 Descriptive Results on Implementation of Logistics Services Outsourcing

Statement	Mean	Std Dev
Operational cost reduction	3.33	1.23
Company profitability increase due to logistics services outsourcing	1.34	1.09
Company returns increase due to logistics services outsourcing	1.98	0.87
Market share of the company change due to logistics services outsourcing	1.46	0.98
Company experience in logistical cost reduction	2.34	1.12
Average	**2.09**	**1.058**

Correlation Results

The study sought to establish the association between the dependent variable and the independent variables. The results showed that the relationship betweentop management support and implementation of logistics outsourcing is positive and significant (r=.252, sig = 0.046, < .005). These findings imply that an improvement in top management support practices such as financial resources and human resources support, provision of direction in regard to logistics services outsourcing and timely disbursement leads to a significant improvement in implementation of logistics service outsourcing at EABL. These findings are consistent with Langley, Newton and Allen (2000) who argued that for implementation of logistics outsourcing to be a success, there is a need for top management support. Specifically, they scholars argued that no outsourcing attempt can be made without the committed participation of all senior executives, in particular the chief executive officer (CEO), chief financial officer (CFO), the chief of operations, the chief information officer, and especially the chief marketing officer.

The findings also revealed that the relationship between technological investment and implementation of logistics outsourcing is positive and significant (r= .325, sig =0.009, <.005). These findings imply that an improvement in technological investment practices such as investment in technology for efficient logistics services management, consistent periodic feedback from the service providers as well as consumers of the service, properly linking the ERP systems for easy communication and share of critical information as well as tracking consignments from the supplier to the end user/consumer leads to a significant improvement in implementation of logistics service outsourcing at EABL. These findings are consistent with Paulraj and Chen (2007) who argued that technological investments are key in facilitation of collaboration by reducing integration costs and the risk of quality and delivery failures thus enhancing the success of procurement functions such as logistics outsourcing implementation. It was also established that the relationship between supplier relationship management and implementation of logistics outsourcing is positive and significant (r=0.789, sig=0.000, <0.005). These findings imply that an improvement in supplier relationship management practices such as engagement of all the involvement parties in major decision making, engagement of the logistics service provider and the organization in joint ventures and development of the service provider through financial support and process improvement support as well as development of the service provider through technical assistance leads to a significant improvement in implementation of logistics service outsourcing at EABL. The

findings are consistent with the findings of a study by Ondieki and Oteki (2014) which assessed the effect of supplier relationship on the effectiveness of supply chain management practices and revealed positive results.

The findings however indicated that the relationship betweenregulatory framework andimplementation of logistics outsourcing is positive but not significant (r = 0.13, sig= 0.311, > .005). These findings imply that an improvement in regulatory framework such as setting of the Key Performance Indicators as well as service level agreement at the onset of the contract with the service provider, regular performance evaluation on the logistics service provider and sharing of risks and reward evenly with the service provider might lead to a positive but not significant improvement in the implementation of logistics service outsourcing at EABL. The findings are consistent with Kujawa (2004) who argued that regulatory framework is key to the success of logistic outsourcing function and that without an accurate scoping of the required services, it is almost impossible to implement and manage a successful outsourcing relationship.

Table 7 Correlation Matrix

		Regulatory Framework	Top Management Support	Technological Investment	Supplier Relationship Management	Implementation
Top Management Support	Pearson Correlation	1				
Technological Investment	Pearson Correlation	.303*	1			
Supplier Relationship Management	Pearson Correlation	.302*	.259*	1		
Regulatory Framework	Pearson Correlation	.09	.043	.502*	1	
Implementation	Pearson Correlation	.13	.252*	.325*	.789*	1
	Sig. (2-tailed)	0.311	0.046	0.009	0.000	
	N	63	63	63	63	63

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

Multiple Regression Analysis

In order to establish the statistical significance of the hypothesized relationships, multiple linear regression was conducted at 95 percent confidence level (α=0.05). The results for model summary revealed that R= was 0.833, indicating a strong positive association between the joint predictor variables (Top Management Support, Technological Investment, Supplier Relationship Management, Regulatory Framework) and implementation of logistics outsourcing. The coefficient of determination that is R-squared was 0.693, which implied that 69.3% of the changes / variation in logistics service outsourcing is attributed to the four predictor variables (Top Management Support, Technological Investment, Supplier Relationship Management, Regulatory Framework). The remaining percentage, that is 30.7%, of the variation in logistics service outsourcing is attributed to other factors other than the four investigated in this study. This therefore opens a room for further studies on the topic.

Table 8 Model Summary

R	R Square	Adjusted R Square	Std. Error of the Estimate
.833	0.693	0.672	0.2392

The results of ANOVA test as shown in Table 9 indicated an F value of 32.777 with a significance of p value = .000 which was less than .05, meaning that the model fit well and was significant. This implies that Top Management Support, Technological Investment, Supplier Relationship Management and Regulatory Framework can be used to significantly predict logistics service outsourcing among the manufacturing firms. The findings are also confirmed by comparison of a calculated F value of 32.777against f critical value (4, 62) of 2.520. If the f calculated is greater than f critical, which is the case in this study, then it is concluded that the model is significant thus confirming the earlier results.

Table 9 ANOVA Results (Model Significance)

Indicator	Sum of Squares	df	Mean Square	F	Sig.
Regression	7.504	4	1.876	32.777	.000
Residual	3.32	58	0.057		
Total	10.824	62			

Dependent Variable: Implementation of Logistics Service Outsourcing

Top Management Support, Technological Investment, Supplier Relationship Management, Regulatory Framework

The model coefficients results in Table 10 showed that the coefficient of top management support was (β=0.106, p=0.041, <0.05) which shows a positive and statistically significant relationship between top management support and implementation of logistics service outsourcing. This implies that a unit increase in top management support leads to a 0.106 unit improvement in implementation of logistics service outsourcing. These findings are consistent with the findings of Mose (2013) who indicated that for any procurement imitative to be successful, it must enjoy full management support. The findings also agree with Amemba, (2013) who indicated that top management support for collaborative relationships between the buyers and suppliers is essential for enhancing organizational performance.

he findings further showed that the coefficient of technological investment was (β=0.114, p=0.001, <0.05) which shows a positive and statistically significant relationship between technological investment and implementation of logistics service outsourcing. This implies that a unit increase in technological investment leads to a 0.114 unit improvement in implementation of logistics service outsourcing. The findings are consistent with the argument by Marshall, McIvor and Lamming (2007) who revealed that technology investments are important in facilitation of organizational processes. It was argued that integrating processes between a manufacturing plant and its suppliers often leads to improved performance in inventory, product availability and customer retention.

It was shown that the coefficient of supplier relationship management was (β=0.801, p=0.000, <0.05) which shows a positive and statistically significant relationship between supplier relationship management and implementation of logistics service outsourcing. This implies that a unit increase in supplier relationship management leads to a 0.801 unit improvement in implementation of logistics service outsourcing. The findings are consistent with Tian, Lai and Daniel (2008) who argued that some of the supplier relationship management practices that are key to logistics service outsourcing success are joint activities, the organization developing the service provider and to some extent financing the SP.

Lastly, it was established that the coefficient of regulatory framework was (β=0.041, p = 0.306,>0.05) which shows a positive but not significant relationship between regulatory framework and implementation of logistics service outsourcing. This implies that a unit increase in regulatory framework leads to a 0.041 unit improvement in implementation of logistics service outsourcing although the improvement is not significant. The findings are consistent with Roeser (2001) who indicates the importance of regulatory framework and posits that, many outsourcing failures can be traced back to the scope of work document. A scope of services document can be used to ensure that expectations are documented and that adjustment in scope and the impact are well documented and communicated. Without measurable goals, it will be impossible to quantify current results, or to define the level of service required in the future.

Table 9 Regression Coefficients Results

	Unstandardized Coefficients		**Standardized Coefficients**		
Variable	**B**	**Std. Error**	**Beta**	**t**	**Sig.**
(Constant)	0.051	0.391		0.129	0.898
Top Management Support	0.106	0.051	0.194	2.087	0.041
Technological Investment	0.114	0.033	0.309	3.457	0.001
Regulatory Framework	0.041	0.04	0.111	1.033	0.306
Supplier Relationship Management	0.801	0.108	0.702	7.386	0.000

Conclusion

The established that an improvement in top management support practices such as financial resources and human resources support, provision of direction in regard to logistics services outsourcing and timely disbursement leads to a significant improvement in implementation of logistics service outsourcing at EABL. Furthermore, the study also concluded that an improvement in technological investment practices such as investment in technology for efficient logistics services management, consistent periodic feedback from the service providers as well as consumers of the service, properly linking the ERP systems for easy communication and share of critical information as well as tracking consignments from the supplier to the end user/consumer leads to a significant improvement in implementation of logistics service outsourcing at EABL.

Furthermore, the findings of the study led to the conclusion that an improvement in supplier relationship management practices such as engagement of all the involvement parties in major decision making, engagement of the logistics service provider and the organization in joint ventures and development of the service provider through financial support and process improvement support as well as development of the service provider through technical assistance leads to a significant improvement in implementation of logistics service outsourcing at EABL. Lastly, it was concluded that an improvement in regulatory framework such as setting of the Key Performance Indicators as well as service level agreement at the onset of the contract with the service provider, regular performance evaluation on the logistics service provider and sharing of risks and reward evenly with the service provider might lead to a positive but not significant improvement in the implementation of logistics service outsourcing at EABL.

Recommendations for the Study

This study recommends that in order to successfully implement logistics services outsourcing and realize more better results in performance, there is a need to enhance the practice of this top management support practices that are less practiced. The study recommends that manufacturing firms should aim to practice more of this technological investment practices so as to realize more benefits of logistics service outsourcing. The findings revealed that supplier relationship management has a positive and significant influence on implementation of logistic services in the manufacturing sector. Despite this being the case, there are some supplier relationship management practices that are less practiced in the manufacturing firms such as development of the service provider through technical assistance and financial support. Based on this, this study recommends manufacturing firms to practice more of this supplier relationship management practices so as to realize more benefits of logistics service outsourcing. The findings indicated that the relationship betweenregulatory framework andimplementation of logistics outsourcing is positive but not significant. The study recommends a need to improve regulatory framework practices such as setting of the Key Performance Indicators as well as service level agreement at the onset of the contract with the service provider, regular performance evaluation on the logistics service provider and sharing of risks and reward evenly with the service provider which might lead to a positive and significant improvement in the implementation of logistics service outsourcing at EABL.

Conflict of Interest

No potential conflict of interest was reported by the authors.

References

Agrawal, S., Singh, R. K., & Murtaza, Q. (2015). A literature review and perspectives in reverse logistics. *Resources, Conservation and Recycling*, *97*, 76-92.

Baruch, Y. (2009). Response rate in academic studies—A comparative analysis. *Human relations*, *52*(4), 421-438.

Bechhofer,F. & Paterson, L. (2012). *Principles of Research Design in the Social Sciences*. Routledge.

Caunhye, A. M., Nie, X., & Pokharel, S. (2012). Optimization models in emergency logistics: A literature review. *Socio-economic planning sciences*, *46*(1), 4-13.

David, M.& Sutton, C. D. (2011). *Social Research: An Introduction*. SAGE Publications.

Ehie, I. C. (2011). Determinants of success in manufacturing outsourcing decisions: a survey study. *Production and Inventory Management Journal*, *42*(1), 31.

Finchman, J. E. (2008). Response rates and responsiveness for surveys, standards, and the Journal. *American journal of pharmaceutical education*, *72*(2), 43.

Hong, J., Chin, A. T., & Liu, B. (2010). Logistics outsourcing by manufacturers in China: a survey of the industry. *Transportation journal*, 17-25.

Jayaram, J., & Tan, K. C. (2010). Supply chain integration with third-party logistics providers. *International Journal of Production Economics*, *125*(2), 262-271.

Khan, J. A., (2011). *Research Methodology*. New Delhi: APH Publishing.

Mukaka, M. M. (2012). A guide to appropriate use of correlation coefficient in medical research. *Malawi Medical Journal*, *24*(3), 69-71.

Portney, L. G., & Watkins, M. P. (2010). *Foundations of clinical research: applications to practice*. Prentice Hall.

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

Tompkins, J., Simonson, S., Tompkins, B. & Upchurch, B. (2006) Creating an outsourcing relationship, *Supply Chain Management Review*, 10 (2), 52-58.

Venables, M. (2005). Home, sweet home. IEE Manufacturing Engineer, October-November, 6-7.

Wambui, M. (2010). *Analysis of Outsourcing at Kenya Armed Forces*, Unpublished MBA Project. UON

Yin, R. K. (2017). *Case study research and applications: Design and methods*. Sage publications.