

# Influence of Contextual Factors on Logistic Outsourcing of Sugar Manufacturing Firms in Western Region

<sup>1</sup>Fredrick N. Kiongera, <sup>2</sup>Mogere K. Machuki

<sup>1</sup>Masinde Muliro University, P.O. Box 190, Kakamega, Kenya

<sup>2</sup>Masinde Muliro University, P.O. Box 190, Kakamega, Kenya

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**Abstract:** The main current focus of supply chain management (SCM) world-wide is the creation of long-term, mutually beneficial relationships between a company and other participants in the supply chain. Strategic partnerships are a key factor in the effectiveness of the business of a company as a whole. The study intended to determine the influence of contextual factors on the logistical performance of sugar manufacturing firms in western region. The study used both primary and secondary data collection instruments. Primary instruments included the use of structured and unstructured questionnaires. Secondary instruments involved acquiring information from the already existing records from the sugar manufacturing firms and any other public available information that is already documented. Descriptive and inferential statistics were used in data analysis using SPSS software. Karl Pearson's zero order coefficient of correlation (Pearson Product Moment Correlation or simple correlation) was used to determine the direction and strength of the relationship between Contextual factors on logistic performance of sugar manufacturing firms in western region. Simple regression analysis was used to model the relationship between logistic outsourcing and performance of sugar manufacturing firms. The relationship between contextual factors and the logistics performance of sugar manufacturing firms follow a regression model of the nature  $P = \alpha + \beta_1 CF + e$ . The findings were presented using tables and crossbar tabulations. The outcome was positive correlation between logistic outsourcing and performance of sugar manufacturing firms. The findings are of importance to the Government of Kenya, shareholders, employees and customers of sugar manufacturing firms. Further, the findings form a basis of future research by interested parties in future.

**Keywords:** Contextual factors, Logistics, Outsourcing.

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## 1. INTRODUCTION

Business Operations are primarily concerned with "making the most efficient use of whatever resources the organization has so as to improve the goods and services their customers need, in a timely and cost effective manner" (Adam and Ebert, 1997). Business Operations are ideally guided by competitive and market forces in the industry together with the economy and efficiency of the conversion process. Indeed, these provide the basis for business sustainability. For smooth flowing business operations, all the functions of the business must play a role to this effect. Ultimately, an analysis of performance could be got by indicators such as turnover, number of employees and the level of management control exercised over the conversion process, (Ricky Griffin and Ronald Ebert, 1999).

### 1.1 Background of the study

Business Operations, complex as some may be, have impacts that can, to an extent, be reflected in measurable terms. Accounting, the identification, measurement, valuation, processing and reporting of costs and benefits is indispensable if decision making is to occur. The management accounting system, at a minimum, provides information concerning activities undertaken, and on the costs and benefits of business operations. Although other reports are used in conjunction with the management accounts, additional cost information especially as regards CSR effect is usually unavailable.

Typical accounting systems provide limited data on product costs to make strategic decisions on price (driven by the market), product mix and volumes. Their structure provides no data on CSR costs leaving middle management with no information on the CSR aspects and effects on business activities, (Burritt and Schattegger, 2002). It is therefore important for staff to continuously seek operational improvements and refinements through recycling waste and operating effective housekeeping and maintenance services around the workplace.

Contextual factors refer to the environmental characteristics that relate to the effectiveness of collaboration. The first factor to consider in developing collaborative relationships with logistics providers is the commitment of top management in the client organization (Laarhoven, Berglund, & Peters, 2000). Lack of this commitment organization can be a source of many problems since the top management is for many important decisions including approval of needed resources, monitoring of performances and providing leadership in ensuring organization goals are reached. Many other issues are related to top management commitment; these are together with lack of willingness to spend time necessary to develop relationships and changes in leadership at the client organization. While relationships cannot improve without any further effort and time from the parties, change in leadership may impact original vision and strategies in the client organization. If the new leadership has different opinion, the relationships with logistics providers may be exposed to risks.

Logistics goes beyond functions that relate to the physical movement of goods and includes customer and suppliers' relationship management. Nonetheless, logistics management is a way in which customer needs are met through coordinating and integrating of the supply chain activities. Logistics has been an important part of every economy and every business entity. Logistics cost average about 12% of the World's GDP. In Singapore, logistics cost accounts for about 11% of its GDP. The worldwide trend in globalization has led many companies to outsource their logistics function to Third Party Logistics (3PL) companies, so as to focus on their core competencies. In a recent study conducted by Cap Gemini Ernst & Young US LLC, Georgia Tech and FedEx, involving 400 representatives from North America, Western Europe and Asia Pacific, it is concluded that logistics outsourcing remains a growing business globally. On a smaller scale, Bhatnagar, Sohal and Millen reported that the need for logistics outsourcing is also increasing in Singapore (Wilding & Juriado, 2004).

Earlier researches, however, have cast doubt on the efficacy of contextual factors, as some companies experience favorable logistical performance outcomes while others do not. The study attempts to understand the influence of contextual factors on the logistics outsourcing of sugar manufacturing companies in the western region.

## **1.2 Research objective**

Influence of contextual factors on logistic outsourcing of sugar manufacturing firms in Western region

## **2. LITERATURE REVIEW**

This study is anchored on the following theories:-

### **2.1 Theory of the firm**

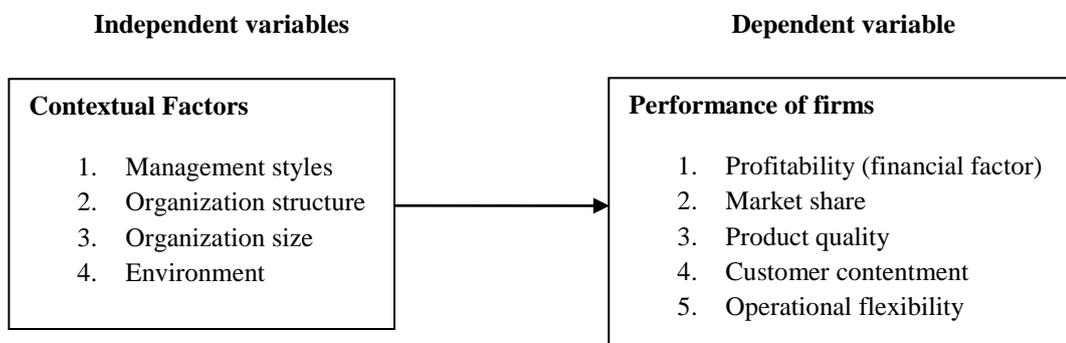
Logistic outsourcing primarily occurs because of the main objectives of firms-as explained in the theory of the firm. The theory of the firm was traditionally one branch of Microeconomics which studied the supply of goods by profit-maximizing agents. In this theory, production costs played a crucial role. Coase (1937) was one of the first pointing out that in addition to production costs of the usual sort, one must also consider transaction costs in explaining institutions like the firm. He focused on the comparative transaction costs of alternative organizational known as transaction-cost economics (Williamson, 1985) or more broadly the economics of organization. The answers to the questions why firms exist and what precisely a firm is are fundamental for the understanding of corporate governance. Theories of the firm not only try to answer why businesses are organized in firms but how the relationships within the firm as well as between the firm and society at large look like. Before the 1930s the firm was very often seen as a "black box" which was assumed to behave like any other self-interested utility maximizing economic actor. This view was based on the belief about the firm's ability to almost instantaneously adjust itself to a changing environment. Consequently resources of a firm were assumed to be put to their most efficient use without having a look "inside" the firm. It was treated as an entity competing with other firms in the market. Although the limitations of this macroeconomic view have already been cited by authors like Adam Smith (1723-1790), the contemporary legal concept of separate legal personalities of companies supports this theory.

## 2.2 Hamel and Prahalad concept

Logistic outsourcing is an evolving strategy and already there are various concepts under development to reflect the dynamics in the industry. The impracticality of excelling in every possible task has led many companies to concentrate on activities which they perceive to be linked to their core competencies, a concept proposed by Hamel and Prahalad (1994). This concentration was made possible by, and further stimulated the emergence of providers specialized on performing tasks that many organizations considered to be non-core. The resulting arrangement is referred to as outsourcing, defined by Lankford and Parsa (1999) as “the procurement of products or services from sources that are external to the organization”. These specialized providers achieve economies of scale and offer increased flexibility in reacting to technological progress and changing business requirements such as just-in-time manufacturing (Goldberg, 1990)

One way of understanding the decision to outsource is through transaction costs economics. Providers are able to achieve economies of scale and learning curve effects through concentrating on a single area, enabling them to provide their service at a lower cost. On the other hand, the coordination between both parties increases transaction costs. According to this view, a company will outsource certain activities if the cost advantages of a provider exceed the additional transaction costs (Williamson, 1996).

## 2.3 Conceptual framework



## 3. METHODOLOGY

The study adopted a descriptive cross sectional research design. It used both primary and secondary data collection instruments. Primary instruments included the use of structured and unstructured questionnaires. Secondary instruments involved acquiring information from the already existing records from the sugar manufacturing firms and any other public available information that is already documented. Descriptive and inferential statistics were used in data analysis using SPSS software. Karl Pearson’s zero order coefficient of correlation (Pearson Product Moment Correlation or simple correlation) was used to determine the direction and strength of the relationship between contextual factors and logistic outsourcing of sugar manufacturing firms in western region. Simple regression analysis was used to model the relationship between contextual factors and logistic outsourcing of sugar manufacturing firms. The relationship between contextual factors and logistic outsourcing of sugar manufacturing firms follow a regression model of the nature  $P = \alpha + \beta_1 CF + e$ . The findings were presented using tables and crossbar tabulations.

## 4. FINDINGS AND DISCUSSIONS

The study set out the following null hypothesis;

H<sub>01</sub> Contextual factors have no Influence on logistic outsourcing of sugar manufacturing firms in Western region.

The Karl Pearson’s product moment correlation coefficient was used to test the hypothesis. The study criteria is set such that the study rejects the null hypothesis H<sub>03</sub> if  $B_3 \neq 0$ . The results were as shown in the table 4.13 below;

**Table 4.1 Regression results of contextual factors on logistic outsourcing**

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.371 <sup>a</sup>	.138	.113	1.93482

a. Predictors: (Constant), Contextual factors

**ANOVA<sup>a</sup>**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	20.358	1	20.358	5.438	.006 <sup>b</sup>
	Residual	127.281	34	3.744		
	Total	147.639	35			

- a. Dependent Variable: Logistic outsourcing
- b. Predictors: (Constant), contextual factors

**Coefficients<sup>a</sup>**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	23.577	2.691		8.763	.000
	Contextual factors	1.367	.586	.371	2.332	.026

- a. Dependent Variable: Logistic outsourcing

Source: Research data 2014

The study was set so as to reject  $H_{03}$  if  $\beta_3 \neq 0$ . Since from the results  $\beta_3 = 0.371$ , the study rejected the null hypothesis. The results show that there is a positive linear significant relationship between contextual factors and logistic outsourcing ( $r = 0.371$ ,  $p \leq 0.01$ ). This led the study to reject the null hypothesis and conclude that contextual factors had a positive statistically significant correlation influence to the logistic outsourcing.

The results in the above table show that 13.8% of the logistic outsourcing in sugar manufacturing firms can be explained by contextual factors ( $r^2 = 0.138$ ) and the relationship followed a simple regression model of the nature  $LOS = \alpha + \beta_2 CF + e$  where LOS is the logistic outsourcing,  $\alpha$  is the constant intercept of which in this case is 1.367 and beta  $\beta = 0.371$ .

**5. CONCLUSION**

The objective of this study was to investigate the influence of contextual factors on logistic outsourcing of sugar manufacturing firms in Western region. The study was set so as to reject  $H_{03}$  if  $\beta_3 \neq 0$ . Since from the results  $\beta_3 = 0.371$ , the study rejected the null hypothesis. The results show that there is a positive linear significant relationship between contextual factors and logistic outsourcing ( $r = 0.371$ ,  $p \leq 0.01$ ). This led the study to reject the null hypothesis and conclude that contextual factors had a positive statistically significant correlation influence to the logistic outsourcing. The results show that 13.8% of the logistic outsourcing in sugar manufacturing firms can be explained by contextual factors ( $r^2 = 0.138$ ) and the relationship followed a simple regression model of the nature  $LOS = \alpha + \beta_2 CF + c$  where LOS is the logistic outsourcing,  $\alpha$  is the constant intercept of which in this case is 1.367 and beta  $\beta = 0.371$ .

Collaborative relationships in the logistic system are required with a high level of trust as the parties to the relationship may need to share some sensitive information as a means of achieving specified goals (Lieb & Butner, 2007). Lack of trust may trigger opportunistic behavior that may lead to both parties to lose. Some client organization may have perception that 3PLs and 4PLs basically provide services and therefore cannot become strategic partners (shopping on transaction basis and procurement instead of supply chain orientation). This means that, firms with more experience in partnering with 3PLs probably have more realistic expectations and greater capability of sustaining close, interactive relationships with other 3PLs (Hofer, Knemeyer, & Dresner, 2009).

**6. RECOMMENDATION**

The management of sugar manufacturing firms should align the contextual factors that include the management style, organization structure and organization size to business. The results have indicated that contextual factors have a positive influence on between logistics outsourcing of sugar manufacturing firms in Western region.

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