INFLUENCE OF PROCUREMENT BEST PRACTICES ON THE PERFORMANCE OF FOOD AND BEVERAGE MANUFACTURING FIRMS IN KENYA

[1*]EMMA WANJIKU,

[1*]Post Graduate Student, Department of Procurement and Logistics

JOMO KENYATTA UNIVERSITY OF AGRICULTURE AND TECHNOLOGY

* Author's Email: emmwaku@gmail.com

[2] Dr, PATRICK MWANGANGI,

Lecturer, Department of Procurement and Logistics,

JOMO KENYATTA UNIVERSITY OF AGRICULTURE AND TECHNOLOGY

Abstract

Purpose: The overall objective of this study was to examine the influence of procurement best practices on the performance of food and beverage manufacturing firms in Kenya.

Methodology: This research study adopted a descriptive research design approach. The researcher preferred this method because it allowed an in-depth study of the subject. Structured questionnaires were used to collect data from the 197 heads of procurement departments because it was a census. Data was analyzed using descriptive and inferential statistics. Quantitative data was analyzed using multiple regression analysis. The qualitative data generated was analyzed by use of Statistical Package of Social Sciences (SPSS) version 22.

Results: R square value of 0.647 means that 64.7% of the corresponding variation in performance of food and beverage manufacturing firms in Kenya can be explained or predicted by (reverse logistics, outsourcing, strategic alliances and vendor managed inventory) which indicated that the model fitted the study data.

Conclusion: The findings of the study indicated that reverse logistics, outsourcing, strategic alliances and vendor managed inventory have a positive relationship with performance of food and beverage manufacturing firms in Kenya.

Policy recommendation: Finally, the study recommended that food and beverage manufacturing firms should embrace procurement best practices so as to improve performance and further researches should to be carried out in other sectors to find out if the same results can be obtained

Keywords: *reverse logistics, outsourcing, strategic alliances, vendor managed inventory.*

1.0 INTRODUCTION

1.1 Background of the Study

Procurement best practices are considered an important catalyst in the performance of company's world over (Abdurrahman, 2010). This is why the procurement best practices concept has captured the attention of all sides of commerce and industry, as well as that of academics (Bask, 2011). The large number of academic articles being published in this area is a testimony to the high level of interest in best practices issues (Meegan & Taylor, 2009).

During the past decade, procurement best practices have become one of the most important organizational strategies for achieving competitive advantage. Improving the procurement best practices with which an organization can deliver its products and services is critical for competing in an expanding global market (Ferdows, 2008). Procurement best practices begin with the primary assumption that employees in organizations must cooperate with each other in order to achieve the needs of the customer (Chang, 2008). One can achieve this by controlling manufacturing/service processes to prevent defects (Masters, 2008).

1.1.1 Global Perspective

In response to increase global pressures, customers' demanding superior products and services, the global market place has become very competitive; many organizations have adopted practices such as outsourcing and benchmarking. Many scholars claim that managers can implement procurement best practices in any organization in any sector of the economy such as manufacturing, service, education, and government and it generates improved products and services, more satisfied customers and employees, reduced costs, improved financial performance, enhanced competitive, and increased (Robbins & Coulter, 2009)

1.1.2 Regional Perspective

In the African continent, most countries have adopted procurement best practices in both manufacturing and service sectors but differences occur in the manner in which they are applied. (Kakwezi & Nyeko, 2010) assess the application of procurement best practices in Nigeria, South Africa and Uganda to investigate the relationship between national culture and the implementation of procurement best practices. Their results show that in each country, several distinct relationships between the dimensions of procurement best practices implementation and national culture exist. They therefore imply that the application of procurement best practices should take into account different characteristics of national cultures (Yeung & Lo, 2012).

1.1.3   Local Perspective

Research by World Bank (2013) has described procurement best practices and how these positively affect procurement performance in terms of cost, time, satisfaction, quality, stock, and value. Smith (2011) provides good background to some procurement work as traditional procurement route came under closer scrutiny other procurement routes developed and consequently means for selection were considered. In addition, he has defined various procurement best practice routes if characteristics of procurement route can be identified and the impact of these characteristics upon

performance can be measured, then and only then can the selection of specific procurement path serve a definite purpose.

1.2 Problem Statement

The manufacturing sector in Kenya is a key productive unit and has immense potential for wealth, employment and poverty alleviation, (Kagechu, 2013). Manufacturing industry has been the economic growth engine and is the major tradable sector (Rotich, 2011). However, Kenya's manufacturing industrial sector has enjoyed modest growth rates averaging 4% over the last decade (KAM, 2016). In the year 2000 manufacturing sector was the second largest sub sector of the economy after agriculture (CCG, 2008) but in 2010, it was in the fourth place behind agriculture, wholesale and retail trade, transport and communication (World Bank, 2013). As a result, the sector had seen a reduction in its contribution to GDP from 13.6% in the early 90's to 9.2% in 2012, (GoK, 2013).

Kenya's' vision 2030 emphasizes the need for appropriate manufacturing strategy for efficient and sustainable practices as a way of making the country globally competitive and a prosperous nation (KNBS, 2008). Nevertheless, most manufacturing firms in Kenya operate at a technical efficiency, of about 52% compared to their counterparts in Malaysia that average about 78% (KIPPRA, 2010) raising doubts about the sector's capacity to meet the goals of Vision 2030 (PPOA, 2010). This sector has been the main conduit for the country's integration to the regional and world market, COMESA and EAC, (Were, 2007), thus attracting international investors as well, (Muhoro, 2011).

In order to earn a competitive edge, these firms ought to embrace procurement best practices as it leads to increased profitability, better financial performance, customer satisfaction and increased market share for local manufacturing firms, (Mudhararam and Hunt, 2008). Hines & Taylor 2000, indicated that extensive research has been conducted on procurement best practice. Hassanzadeh and Jafarian, 2010 noted that procurement best practices are viewed as a strategic function working to improve the organization profitability.

Many studies have been conducted on manufacturing firm's performance focusing on different areas of supply chain management. These studies have not addressed the influence of procurement best practice on food and beverage manufacturing firms in Kenya. A study conducted by Achuora (2015) focused on how the performance of manufacturing firms in Kenya is influenced by the use of green supply chain management practices. A study by Mwangangi (2016) examined how the incorporation of logistics management affects the performance of manufacturing firms in Kenya. On the other hand, Kariithi (2011) conducted a study that investigated the aspects that influence the performance of manufacturing firms in Kenya.

Therefore, the studies cannot be used to ascertain the influence of procurement best practices in manufacturing firms in Kenya. This highlights a literature gap that this study aims to bridge by looking at the influence of procurement best practices on the performance of food and beverage manufacturing firms in Kenya.

1.3 Objectives of the Study

1. To assess the influence of reverse logistics on the performance of food and beverage manufacturing firms in Kenya.
2. To establish the influence of outsourcing on the performance of food and beverage manufacturing firms in Kenya.
3. To determine the influence of strategic alliances on the performance of food and beverage manufacturing firms in Kenya.
4. To evaluate the influence of vendor managed inventory on the performance of food and beverage manufacturing firms in Kenya

2.0 LITERATURE REVIEW

2.1.1 Reverse Logistics and Performance of Food and Beverage Manufacturing Firms

According to Hendricks and Singhal (2015) the growing attention to reverse logistics (RL) is explained primarily by the need to comply with regulations on environmental protection, which in many industries imply the producer's responsibility for the sold goods, even after the sale transaction, and in particular when the products' life cycle is over.

Another explanation of the interest for RL is the concern of some companies for their image in front of the growing number of those customers who in their purchase decisions evaluate not only the product's performance, quality, or price, but also the company's respect for the environment demonstrated by environmentally friendly initiatives, such as the use of recycled raw materials in the production process, or the design of such products and packaging that ensure that waste disposal problem is not further intensified (Preuss, 2015).

2.1.2. Outsourcing and Performance of Food and Beverage Manufacturing Firms

In addition to refocusing resources onto core competencies, other strategy issues which encourage the consideration of outsourcing are restructuring, rapid organizational growth, changing technology and the need for greater flexibility to manage demand swings (Oyango, 2011). Flexibility appears to be an important driver not just from a scale perspective but also regarding the scope of product or service. Organizations need to react quicker to customer requirements and outsourcing is seen as a vehicle to accomplish this (Kinyanjui, 2010).

2.1.3 Strategic Alliances and Performance of Food and Beverage Manufacturing Firms

Andrew (2012) specified that supplier partnerships influence procurement performance in terms of system leveraging for example through system integration, commitment to sustainable discounted prices and preferential scheduling of orders. Supplier-buyer partnerships have today become the backbones of economic activities in the modern world and a focal point of organizational competitiveness, performance and long-term business success.

According to Kinyanjui (2010) the competitiveness and profit-generating capacity of the individual firm is highly dependent on its ability to handle the supply side and the management of supplier-buyer relationships as a primary driver of both customer and shareholder value. This is particularly true due to the increased adoption of globalization and outsourcing strategies leveraged by company specialization and focus on their core competencies in order to withstand today's competitive market pressures.

2.1.4 Vendor Managed Inventory and Performance of Food and Beverage Manufacturing Firms

According to Muge (2009) the vendor managed inventory (VMI) term reflects the most significant fact about a supply chain, that is, that the distributor (the customer in the VMI relationship) passes inventory information and point of sales (POS) data to their suppliers rather than placing replenishment orders. The actual inventory at the customer is then compared to a re-order point that has been agreed on by both parties.

This re-order point is set to ensure adequate availability without building up excessive stocks. It triggers a replenishment order that is delivered to the customer if the actual inventory is below the re-order point every planning period (Paul, 2011).According to Maghanga (2011) it should be noted that the net change in the re-order point from one time period to another is added to the sales signal and the vendor treats this as a demand. are applied concurrently only serves to compound an already worse implementation situation.

2.2 Theoretical review
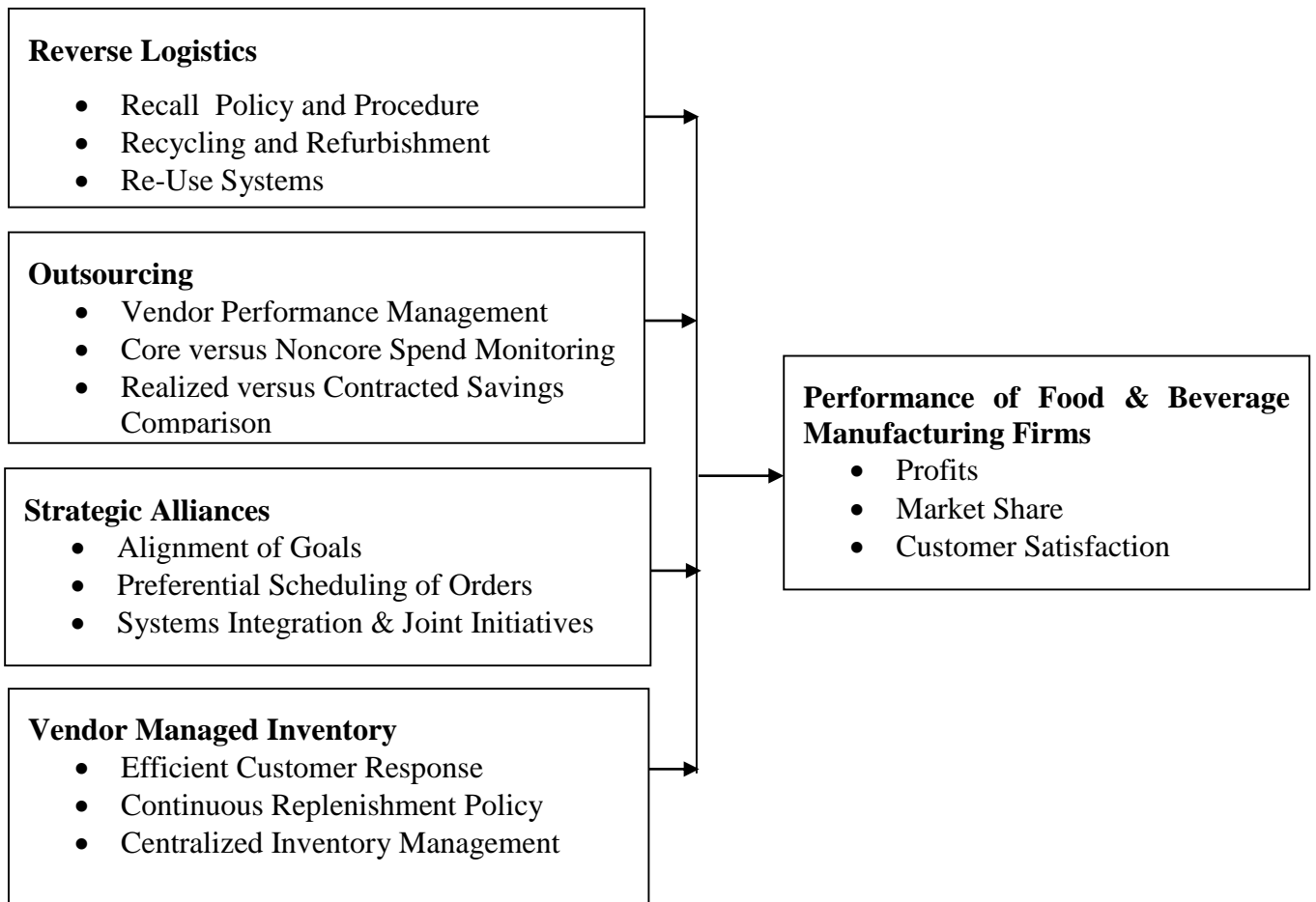
2.2.1 The Stakeholder Theory

According to Harrison and Freeman (2009), they defined the concept of a stakeholder approach in relation to reverse logistics management to include any individual or group who can affect the firm's performance or who is affected by the achievement of the organizations' objectives. The stakeholder theory is grouped into two: strategic stakeholder who emphasizes the active management of stakeholder interests and moral stakeholder interested in balancing stakeholder interests (Frooman, 2009).

Corporations should not focus narrowly their strategic management decisions on creating shareholder value; rather broaden their objectives to tackle the expectations and interest of a wide variety of salient stakeholders (Donaldson & Preston, 2015). Poor reverse logistics management leads to poor company's relationship with its stakeholders. Consequently shareholders and financial institutions perceive companies with a poor environmental record as riskier to invest in and may demand a higher risk premium (Henriques & Sadorsky, 2009).

Also companies with a poor reputation of reverse logistics management will find it harder to attract and retain highly qualified employees who may have a strong proactive environmental management (Reinhardt, 2009). From the above argument the success of companies aiming to develop reverse logistics competencies strongly depend on the participation of their employees. Consumer awareness has led them to demand industry improvement on their environmental performance (Buysse & Verbeke, 2013).

Consumers can reject the products of companies with poor reverse logistics management reputation (Greeno & Robinson, 2012). Similarly suppliers may stop delivering inputs to protect their own reputation. A firm with a reactive reverse logistics management may face big loss of competitive advantage if proactive environmental management becomes a common practice among its competitors. From the above argument Freeman and Phillips, (2012) suggest that business should take a leadership role to improve the natural environment. In this study stakeholder theory has been adopted and linked to reverse logistics management variable.

2.3 Conceptual Framework

Reverse Logistics

- Recall Policy and Procedure
- Recycling and Refurbishment
- Re-Use Systems

Outsourcing

- Vendor Performance Management
- Core versus Noncore Spend Monitoring
- Realized versus Contracted Savings Comparison

Performance of Food & Beverage Manufacturing Firms

- Profits
- Market Share
- Customer Satisfaction

Strategic Alliances

- Alignment of Goals
- Preferential Scheduling of Orders
- Systems Integration & Joint Initiatives

Vendor Managed Inventory

- Efficient Customer Response
- Continuous Replenishment Policy
- Centralized Inventory Management

Independent Variables   **Dependent Variable**

Figure 1: Conceptual Framework

3.0 METHODOLOGY

This research study adopted a descriptive research design approach. The researcher preferred this method because it allowed an in-depth study of the subject. Structured questionnaires were used to collect data from the 197 heads of procurement departments because it was a census. Data was analyzed using descriptive and inferential statistics. Quantitative data was analyzed using multiple regression analysis. The qualitative data generated was analyzed by use of Statistical Package of Social Sciences (SPSS) version 22.

4. 0 RESULTS FINDINGS

4.1 Descriptive Statistics

4.1.1 Reverse Logistics

The first objective of the study was to assess the influence of reverse logistics on performance of food and beverage manufacturing firms in Kenya.The respondents were asked to indicate to what extent reverse logistics had an influence on performance of food and beverage manufacturing firms. Results indicated that majority of the respondents 27% agreed that it was to a very effective, 25% said that it was effective, 29% said it was somehow effective, while ineffective was at 19%.
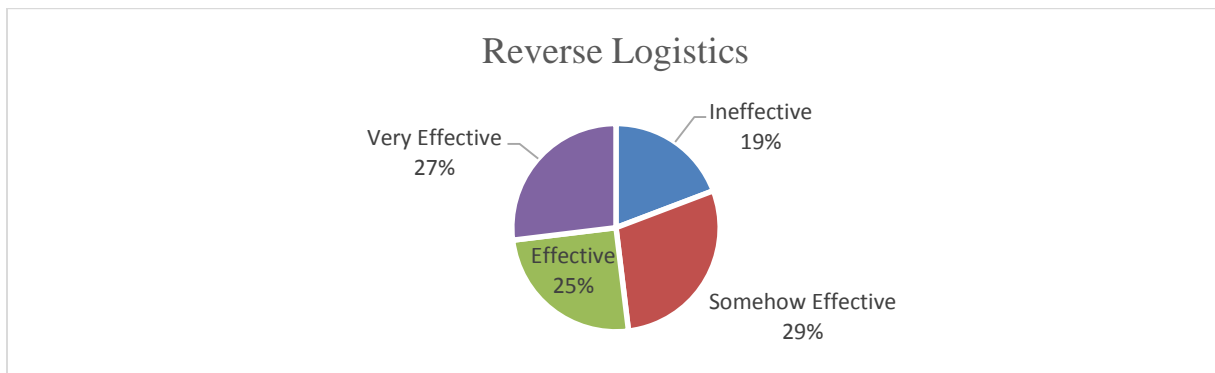
Figure 2: Reverse Logistics

The respondents were also asked to comment on statements regarding reverse logistics on performance of food and beverage manufacturing firms in Kenya. The responses were rated on a likert scale and the results presented in Table 1 below. It was rated on a 5 point likert scale ranging from; 1 = strongly disagree to 5 = strongly agree. The scores of 'strongly disagree' and 'disagree' have been taken to represent a statement not agreed upon, equivalent to mean score of 0 to 2.5. The score of 'neutral' has been taken to represent a statement agreed upon, equivalent to a mean score of 2.6 to 3.4. The score of 'agree' and 'strongly agree' have been taken to represent a statement highly agreed upon equivalent to a mean score of 3.5 to 5.

The respondents were asked to indicate their responses on influence of reverse logistics on performance of food and beverage manufacturing firms in Kenya. The results revealed that majority of the respondent with a mean of (4.13) agreed with the statement that recalls policy and procedure plays a significant role in cost reduction. The measure of dispersion around the mean of the statements was 0.94 indicating the responses were varied. The result revealed that majority of

the respondent as indicated by a mean of (4.27) agreed with the statement recycling and refurbishment plays a significant role in cost reduction. The standard deviation for was 0.968 showing a variation. The result revealed that majority of the respondent (4.55) agreed with the statement that re-uses systems play a significant role in cost reduction. The results were varied as shown by a standard deviation of 0.5.

The average response for the statements on recalls policy and procedure plays a significant role in attaining higher market share was (4.22). The results were varied as shown by a standard deviation of 0.955. The average response for the statements on recycling and refurbishment plays a significant role in attaining higher market share was (4.4). The results were varied as shown by a standard deviation of 0.704. The result revealed that majority of the respondent with a mean of (4.46) agreed with the statement that re-uses systems play a significant role in attaining higher market share. The measure of dispersion around the mean of the statements was 0.787 indicating the responses were varied.

The result revealed that majority of the respondent as indicated by a mean of (4.44) agreed with the statement recalls policy and procedure plays a significant role in attaining timely deliveries. The standard deviation for was 0.786 showing a variation. The result revealed that majority of the respondent (4.21) agreed with the statement that recycling and refurbishment plays a significant role in attaining timely deliveries. The results were varied as shown by a standard deviation of 0.942. The average response for the statements on re-uses systems plays a significant role in attaining timely deliveries was (4.01). The results were varied as shown by a standard deviation of 0.81.

The average mean of all the statements was 4.01 indicating that majority of the respondents agreed on reverse logistics having an influence on performance of food and beverage manufacturing firms. However the variations in the responses were varied as shown by a standard deviation of 0.81.These findings imply that reverse logistics were at the heart of the organizations. The findings agree with Lembke (2012) that using reverse logistics as procurement best practice is a smart move and can reduce expenses significantly.

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Table 1: Reverse Logistics

Statements	Mean	Std. Deviation
Recall policy and procedure plays a significant role in profitability	4.10	0.94
Recycling and refurbishment plays a significant role in profitability	4.27	0.968
Re-use systems plays a significant role in profitability	4.55	0.5
Recall policy and procedure plays a significant role in attaining higher market share	4.22	0.955
Recycling and refurbishment plays a significant role in attaining higher market share	4.41	0.704
Re-use systems plays a significant role in attaining higher market share	4.46	0.787
Recall policy and procedure plays a significant role in attaining customer satisfaction	4.44	0.786
Recycling and refurbishment plays a significant role in attaining customer satisfaction	4.21	0.942
Re-use systems plays a significant role in attaining customer satisfaction	4.11	1.096
Average	4.01	0.81

4.1.2 Outsourcing

The second objective of the study was to establish the influence of outsourcing on performance of food and beverage manufacturing firms in Kenya. The respondents were asked to indicate to what extent outsourcing influenced performance of food and beverage manufacturing firms in Kenya. Results indicated that majority of the respondents 25% agreed that it was to a very great extent, 27% said that it was to a great extent, 35% said it was moderate, while little extent and not all were at 5 and 8% respectively.
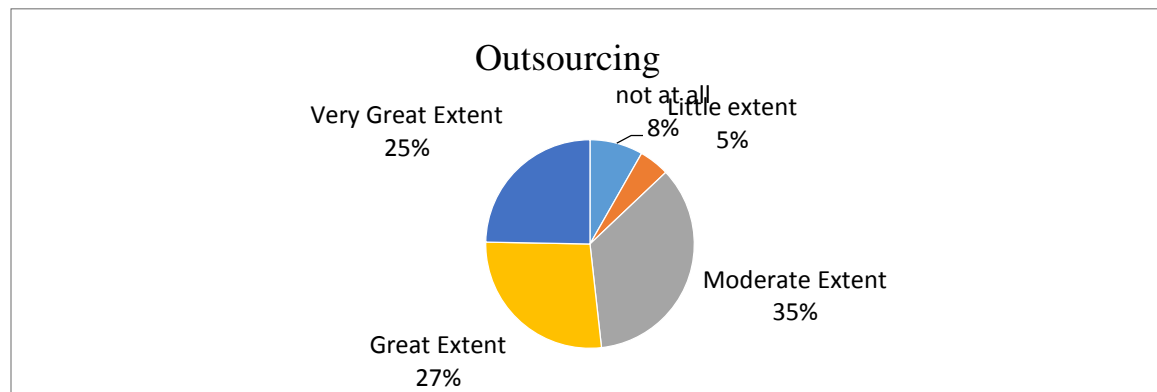
Figure 3: Outsourcing

The respondents were also asked to comment on statements regarding outsourcing on performance of food and beverage manufacturing firms in Kenya. The results revealed that majority of the respondent with a mean of (3.58) agreed with the statement that vendor performance management plays a significant role in cost reduction. The measure of dispersion around the mean of the statements was 1.0 indicating the responses were varied. The result revealed that majority of the respondent as indicated by a mean of (3.63) agreed with the statement core versus noncore spend monitoring plays a significant role in cost reduction. The standard deviation for was 0.9 showing a variation. The result revealed that majority of the respondent (3.6) agreed with the statement that realized versus contracted savings comparison plays a significant role in cost reduction. The results were varied as shown by a standard deviation of 0.7.

The average response for the statements on vendor performance management plays a significant role in attaining higher market share was (3.45). The results were varied as shown by a standard deviation of 1.2. The average responses for the statements on core versus non-core spend monitoring plays a significant role in attaining higher market share was (3.5). The results were varied as shown by a standard deviation of 1.0. The results revealed that majority of the respondent with a mean of (3.61) agreed with the statement that realized versus contracted savings comparison plays a significant role in attaining higher market share. The measure of dispersion around the mean of the statements was 0.6 indicating the responses were varied.

The result revealed that majority of the respondent as indicated by a mean of (4.17) agreed with the statement vendor performance management plays a significant role in attaining timely deliveries. The standard deviation for was 0.8 showing a variation. The result revealed that majority of the respondent (3.63) agreed with the statement that core versus noncore spend monitoring plays a significant role in attaining timely deliveries. The results were varied as shown by a standard deviation of 0.8. The average response for the statements on realized versus contracted savings comparison plays a significant role in attaining timely deliveries was (3.66). The results were varied as shown by a standard deviation of 1.

The average mean of all the statements was 3.77 indicating that majority of the respondents agreed on outsourcing having an influence on performance of food and beverage manufacturing firms in Kenya. However the variations in the responses were varied as shown by a standard deviation of 1.134.These findings agree with Maghanga (2011) that through outsourcing, companies can improve competitive positioning.

Table 2: Outsourcing

Statements	Mean	Std. Deviation
Vendor performance management plays a significant role in profitability	3.58	1.0
Core versus noncore spend monitoring plays a significant role in profitability	3.63	0.9
Realized versus contracted savings comparison plays a significant role in profitability	3.6	0.7
Vendor performance management plays a significant role in attaining higher market share	3.45	1.2
Core versus noncore spend monitoring plays a significant role in attaining higher market share	3.5	1.0
Realized versus contracted savings comparison plays a significant role in attaining higher market share	3.61	0.6
Vendor performance management plays a significant role in attaining customer satisfaction	4.17	0.8
Core versus noncore spend monitoring plays a significant role in attaining customer satisfaction	3.63	0.8
Realized versus contracted savings comparison plays a significant role in attaining customer satisfaction	3.66	1.0
Average	3.77	1.134

4.1.3 Strategic Alliances

There was also need to establish influence of strategic alliances on performance of food and beverage manufacturing firms in Kenya as the third objective. Results indicated that majority of the respondents 47% agreed that it was to a very great extent, 45% said that it was to a great extent, 2% said it was moderate; little extent was 2% and not all at 4%.
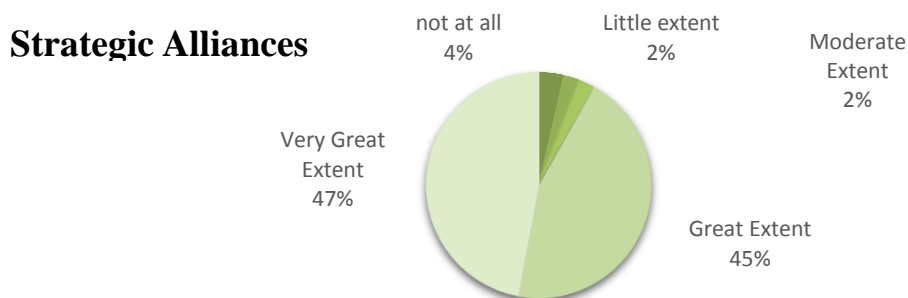
Figure 4: Strategic Alliances

The respondents were asked to indicate their levels of agreement on statements regarding strategic alliances. The results revealed that majority of the respondent with a mean of (3.8) agreed with the statement that alignment of goals play a significant role in cost reduction. The measure of dispersion around the mean of the statements was 0.9 indicating the responses were varied. The result revealed that majority of the respondent as indicated by a mean of (4.9) agreed with the statement preferential scheduling of orders play a significant role in cost reduction. The standard deviation for was 0.9 showing a variation. The result revealed that majority of the respondent (3.4) agreed with the statement that systems integration and joint initiatives play a significant role in cost reduction. The results were varied as shown by a standard deviation of 1.3.

The average response for the statements on alignment of goals play a significant role in attaining higher market share was (3.6). The results were varied as shown by a standard deviation of 1.2. The average response for the statements on preferential scheduling of orders play a significant role in attaining higher market share was (4.1). The results were varied as shown by a standard deviation 0.8. The results revealed that majority of the respondent with a mean of (4.1) agreed with systems integration and joint initiatives play a significant role in attaining higher market share. The measure of dispersion around the mean of the statements was 0.9 indicating the responses were varied.

The result revealed that majority of the respondent as indicated by a mean of (4) agreed with the statement alignment of goals play a significant role in attaining timely deliveries. The standard deviation for was 1 showing a variation. The result revealed that majority of the respondent (4.2) agreed with the statement that preferential scheduling of orders play a significant role in attaining timely deliveries. The results were varied as shown by a standard deviation of 0.8. The average response for the statements on systems integration and joint initiatives play a significant role in attaining timely deliveries was (3.9). The results were varied as shown by a standard deviation of 0.9.

Average mean of all the statements was 3.8 indicating that majority of the respondents agreed on strategic alliances having an influence on performance of food and beverage manufacturing firms in Kenya. However the variations in the responses were varied as shown by a standard deviation of 0.9. The results are in tandem with Parkhe (2013) who opine that an organization benefits greatly when strategic alliances are embraced in their supplier relations.

Table 3: Strategic Alliances

Statements	Mean	Std. Deviation
1. Alignment of goals play a significant role in profitability	3.8	0.9
2. Preferential scheduling of orders play a significant role in profitability	4.9	0.9
3. Systems integration plays a significant role in profitability	3.4	1.3
4. Alignment of goals play a significant role in attaining higher market share	3.6	1.2
5. Preferential scheduling of orders play a significant role in attaining higher market share	4.1	0.8
6. Systems integration plays a significant role in attaining higher market share	4.1	0.9
7. Alignment of goals play a significant role in attaining customer satisfaction	4.0	1.0
8. Preferential scheduling of orders play a significant role in attaining customer satisfaction	4.2	0.8
9. Systems integration plays a significant role in attaining customer satisfaction	3.9	0.9
Average	3.8	0.9

4.1.3 Vendor Managed Inventory

There was also need to establish the influence of vendor managed inventory on performance of food and beverage manufacturing firms in Kenya. Results also showed that 3% of respondents indicated to very great extent, great extent was at 12%, moderate extent was 37%, while little extent was at 27% and not at all was at 21%.

Vendor Managed Inventory

Very Great Extent, 3%
Great Extent, 12%
not at all, 21, %
Moderate Extent, 37,%
Little extent, 27%
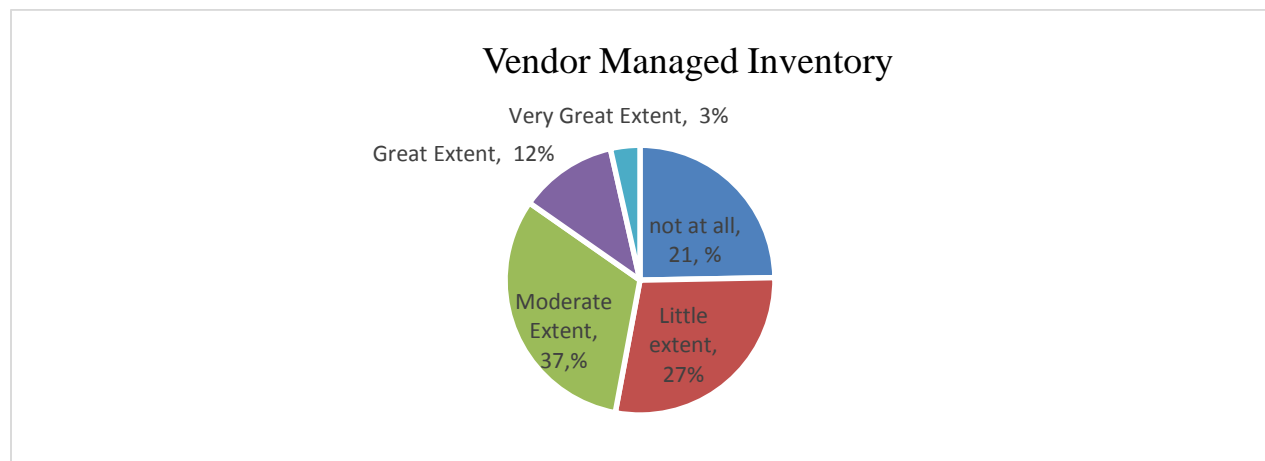
Figure 5: Vendor Managed Inventory

The respondents were asked to indicate their views on vendor managed inventory. The results revealed that majority of the respondent with a mean of (4.5) agreed with the statement that efficient customer response plays a significant role in cost reduction. The measure of dispersion around the mean of the statements was 0.5. The result revealed that majority of the respondent as indicated by a mean of (3.9) agreed with the statement continuous replenishment policy plays a significant role in cost reduction the standard deviation for was 0.8 showing a variation. The result revealed that majority of the respondent (3.2) agreed with the statement that centralised inventory management plays a significant role in cost reduction. The results were varied as shown by a standard deviation of 1.4

The average response for the statements on efficient customer response plays a significant role in attaining higher market share was (4.5). The results were varied as shown by a standard deviation of 0.5. The average response for the statements on continuous replenishment policy plays a significant role in attaining higher market share was (4.4). The results were varied as shown by a standard deviation 0.6. The results revealed that majority of the respondent with a mean of (4.4) agreed with the statement centralised inventory management plays a significant role in attaining higher market share. The measure of dispersion around the mean of the statements was 0.9 indicating the responses were varied.

The result revealed that majority of the respondent as indicated by a mean of (4.3) agreed with the statement efficient customer response plays a significant role in attaining timely deliveries. The standard deviation for was 0.7 showing a variation. The result revealed that majority of the respondent (4.5) agreed with the statement that continuous replenishment policy plays a significant role in attaining timely deliveries. The results were varied as shown by a standard deviation of 1.0. The average response for the statements on centralised inventory management plays a significant role in attaining timely deliveries was (4.1). The results were varied as shown by a standard deviation of 1.0.

Average mean of all the statements was 4.2 indicating that majority of the respondents agreed on vendor managed inventory having an influence on performance of food and beverage manufacturing firms in Kenya. However the variations in the responses were varied as shown by a standard deviation of 0.8. The results agree with Gordon (2014) that an organization that embraces vendor managed inventory benefits greatly in its operations management.

Table 4: Vendor Managed Inventory

Statements	Mean	Std. Deviation
Efficient customer response plays a significant role in profitability	4.5	0.5
Continuous replenishment policy plays a significant role in profitability	3.9	0.8
Centralised inventory management plays a significant role in profitability	3.2	1.4
Efficient customer response plays a significant role in attaining higher market share	4.5	0.5
Continuous replenishment policy plays a significant role in attaining higher market share	4.4	0.6
Centralised inventory management plays a significant role in attaining higher market share	4.4	0.9
Efficient customer response plays a significant role in attaining customer satisfaction	4.3	0.7
Continuous replenishment policy plays a significant role in attaining customer satisfaction	4.2	1.0
Centralised inventory management plays a significant role in attaining customer satisfaction	4.1	1.0
Average	4.2	0.8

4.2 Correlation Analysis

Correlation analysis was used to determine both the significance and degree of association of the variables and also predict the level of variation in the dependent variable caused by the independent variables. The correlation summary shown in Table 5 indicates that the associations between each of the independent variables and the dependent variable were all significant at the 95% confidence level. The correlation analysis to determine the relationship between procurement best practices influencing of food and beverage manufacturing firms in Kenya, Pearson correlation coefficient computed and tested at 5% significance level.

The results indicate that there is a positive relationship (r=.509) between reverse logistics and performance of food and beverage manufacturing firms in Kenya. In addition, the researcher found the relationship to be statistically significant at 5% level (p=0.000, <0.05). The results also indicate that there is a positive relationship (r=.398) between outsourcing and performance of food and beverage manufacturing firms in Kenya. In addition, the researcher found the relationship to be statistically significant at 5% level (p=0.000, <0.05).

The results indicate that there is a positive relationship (r=.678) between strategic alliances and performance of food and beverage manufacturing firms in Kenya. In addition, the researcher found the relationship to be statistically significant at 5% level (p=0.000, <0.05). The results indicate that there is a positive relationship (r=.685) between vendor managed inventory and performance of food and beverage manufacturing firms in Kenya.

In addition, the researcher found the relationship to be statistically significant at 5% level (p=0.000, <0.05). Hence, it is evident that all the independent variables could explain the changes in implementation of performance of food and beverage manufacturing firms in Kenya, on the basis of the correlation analysis.

Table 5: Summary of Pearson's Correlations

Correlations		Reverse Logistics	Outsourcing	Strategic Alliances	Vendor Managed Inventory	Performance of Firms
Reverse Logistics	Pearson Correlation	1				
	Sig.(2-Tailed)					
Outsourcing	Pearson Correlation	.263**	1			
	Sig.(2-Tailed)	0.007				
Strategic Alliances	Pearson Correlation	.350**	.346**	1		
	Sig.(2-Tailed)	0	0			
Vendor Managed Inventory	Pearson Correlation	.363**	.516**	.543**	1	
	Sig.(2-Tailed)	0	0	0		
Performance of Firms	Pearson Correlation	.509**	.398**	.678**	.685**	1
	Sig.(2-Tailed)	0	0	0	0	

** Correlation is Significant at the 0.05 Level (2-Tailed)

4.3 Regression Analysis

In this study multivariate regression analysis was used to determine the significance of the relationship between the dependent variable and all the independent variables pooled together. Regression analysis was conducted to find the proportion in the dependent variable (performance of food and beverage manufacturing firms in Kenya) which can be predicted from the independent variables (reverse logistics, outsourcing, strategic alliances and vendor managed inventory).

Table 6 presents the regression coefficient of independent variables against dependent variable. The results of regression analysis revealed there is a significant positive relationship between dependent variable and the independent variable. The independent variables reported R value of .805a indicating that there is perfect relationship between dependent variable and independent variables.

R square value of 0.647 means that 64.7% of the corresponding variation in performance of food and beverage manufacturing firms in Kenya can be explained or predicted by (reverse logistics, outsourcing, strategic alliances and vendor managed inventory) which indicated that the model fitted the study data. The results of regression analysis revealed that there was a significant positive relationship between dependent variable and independent variable at ($\beta = 0.647$), p=0.000 <0.05).

Table 6: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.805[a]	.647	.633	.166295

Table 7: ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	5.027	4	1.257	66.158	.000[b]
	Residual	2.738	147	0.019		
	Total	7.765	151			

The significance value is 0.000 which is less than 0.05 thus the model is statistically significance in predicting how reverse logistics, outsourcing, strategic alliances and vendor managed inventory influence performance of food and beverage manufacturing firms in Kenya. The F critical at 5% level of significance was 36.8. Since F calculated which can be noted from the ANOVA table above is 66.158 which is greater than the F critical (value= 36.8), this shows that the overall model was significant. The study therefore establishes that; reverse logistics, outsourcing, strategic alliances and vendor managed inventory were all important procurement best practices influencing performance of food and beverage manufacturing firms. These results agree with Kazemi and Hooshyar (2009) results which indicated a positive and significant influence of procurement best practices on performance of food and beverage manufacturing firms.

Table 8: Coefficients of Determination

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.353	0.202		11.619	0.000
	Vendor Managed Inventory	0.183	0.037	0.392	4.948	0.000
	Reverse Logistics	0.158	0.045	0.232	3.546	0.001
	Strategic Alliances	0.121	0.023	0.383	5.272	0.000
	Outsourcing	0.001	0.036	0.027	0.021	0.040

Predictors: (Constant), Reverse Logistics, Outsourcing, Strategic Alliances, Vendor Managed Inventory

Dependent Variable: Performance of Food and Beverage Manufacturing Firms

The research used a multiple regression model

$$Y= \beta_0+ \beta_1X_1+\beta_2X_2+\beta_3X_3 +\beta_4X_4 +\mathcal{E}$$

The regression equation will be;

$$Y=2.353+ 0.183X_1 + 0.158X_2 + 0.121X_{3 +} 0.001X_4$$

The regression equation above has established that taking all factors into account (reverse logistics, outsourcing, strategic alliances and vendor managed inventory) constant at zero, performance of food and beverage manufacturing firms will be an index of 2.353.

The findings presented also shows that taking all other independent variables at zero, a unit increase in reverse logistics will lead to a 0.158 increase in performance of food and beverage manufacturing firms. The P-value was 0.001 which is less 0.05 and thus the relationship was significant.

The study also found that a unit increase in outsourcing will lead to a 0.001 increase in performance of food and beverage manufacturing firms. The P-value was 0.04 and thus the relationship was significant. In addition, the study found that a unit increase in strategic alliances will lead to a 0.121 increase in performance of food and beverage manufacturing firms. The P-value was 0.000 and thus the relationship was significant.

Lastly, the study found that vendor managed inventory will lead to a 0.183 increase in performance of food and beverage manufacturing firms. The P-value was 0.000 and hence the relationship was significant since the p-value was lower than 0.05. The findings of the study show that, vendor managed inventory contributed most to performance of food and beverage manufacturing firms.

5. 0 SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Summary of Findings

5.1.1 Reverse Logistics

The study sought to assess influence of reverse logistics on performance of food and beverage manufacturing firms in Kenya as the first objective of the study.A majority of respondents were found to highly agree that food and beverage manufacturing firms had embraced reverse logistics with regard to their procurement activities. Recycling and refurbishment were common in the food and beverage manufacturing firms. Correlation and regression results revealed that this was an important variable that could perhaps be explained by the observation from the findings that reverse logistics was an important factor in influencing performance of food and beverage manufacturing firms.

5.1.2 Outsourcing

Majority of respondents were found to highly agree that food and beverage manufacturing firms had embraced outsourcing with regard to their procurement activities core versus non-core spend monitoring were common in the food and beverage manufacturing firms. Correlation and regression results revealed that this was an important variable that could perhaps be explained by the observation from the findings that outsourcing was an important factor in influencing performance of food and beverage manufacturing firms.

5.1.3 Strategic Alliances

Most of the respondents were found to highly agree that food and beverage manufacturing firms had embraced strategic alliances with regard to their procurement activities. Alignments of goals were common in the food and beverage manufacturing firms. Correlation and regression results revealed that this was an important variable that could perhaps be explained by the observation from the findings that strategic alliances was an important factor in influencing performance of food and beverage manufacturing firms.

5.1.4 Vendor Managed Inventory

Many of the respondents were found to highly agree that food and beverage manufacturing firms had embraced vendor managed inventory with regard to their procurement activities. Efficient customer response was common in the food and beverage manufacturing firms. Correlation and regression results revealed that this was an important variable that could perhaps be explained by the observation from the findings that vendor managed inventory was an important factor in influencing performance of food and beverage manufacturing firms.

5.2 Conclusion of the Study

Based on the study findings, the study concludes that performance of food and beverage manufacturing firms can be improved by reverse logistics, outsourcing, strategic alliances and vendor managed inventory.

5.3 Recommendations of the Study

Finally, the study recommended that food and beverage manufacturing firms should embrace procurement best practices so as to improve performance and further researches should to be carried out in other sectors to find out if the same results can be obtained

5.4 Areas for Further Research

The study is a milestone for further research in the field of performance of food and beverage manufacturing firms in Africa and particularly in Kenya. The findings demonstrated the important procurement best practices to the performance of food and beverage manufacturing firms to include; reverse logistics, outsourcing, strategic alliances and vendor managed inventory. The current study obtained a regression of 64.7% and should therefore be expanded further in future in order to include other procurement best practices that may as well have a positive significance to performance of food and beverage manufacturing firms. Existing literature indicates that as a future avenue of research, there is need to undertake similar research in other institutions in Kenya and other countries in order to establish whether the explored procurement best practices platforms herein can be generalized to affect performance in other institutions.

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