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## **Influence of Procurement Best Practices in Optimizing Procurement Performance among Parastatals in Kenya**

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# Influence of Procurement Best Practices in Optimizing Procurement Performance among Parastatals in Kenya

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## Abstract

The main objective of the study was to examine the influence of procurement best practices in optimizing procurement performance among parastatals in Kenya. To gather data, structured questionnaire will be used to collect data from a sample of 127 respondents, who were selected using simple random sampling, from the four strata. The response rate of the study was 82%. The findings of the study indicated that reverse logistics management, business process outsourcing, strategic partnerships and organizational benchmarking have a positive relationship with procurement performance among parastatals in Kenya. Finally, the study recommended that public institutions should embrace procurement best practices so as to improve performance and further researches should to be carried out in other public institutions to find out if the same results can be obtained

**Keywords:** *reverse logistics management, business process outsourcing, strategic partnerships, organizational benchmarking*

## 1.0 Introduction

In today's economic environment doing what you have always done even if you are to do it very well is no longer acceptable, under pressure to contain both costs and produce results despite challenging circumstances, supply managers must transform rather than simply improve your operation. That means adopting the philosophies, methods and processes that will make your organization best in class (Mann & Zhang, 2010). What makes an organization best in class will vary from each company but there are strategies that leading companies are adopting. Procurement

represents a stage in evolution of civilized human relationships since it enables a desired object to be obtained by training rather than conquest, plunder or justification (Masters, 2011).

Despite the large number of articles and books on best practices, procurement best practices remain a hazy, ambiguous concept. Various teams provide companies with the structured environment necessary for successfully implementing and continuously applying the best practices process (Al-Mashari & Zairi, 2010). Best practices training are conducted and the improvement of processes executed through a well-planned team structure. The ultimate goal of the team approach is to get everyone, including contractors, designers, vendors, subcontractors, and owners involved. Based on the fact that manufacturing sector is among the largest contributor of the Kenyan GDP, 26% of GDP in 2010, governmental policies in Kenya should strive towards the implementation of procurement best practices in pursuit of acquiring quality service excellence in this sector (KNBS, 2012). It requires a full understanding of each activity and involves each individual at every level. It needs a cultural and organizational change to achieve continuing and continual improvement of processes.

## 1.2 Problem Statement

In many emerging economies, especially in Africa, parastatals have been the economic growth engine and are the backbone driving government's transformation agenda in those economies (PPOA, 2010). In Kenya, in a bid to restructure the government to facilitate better provision of services and better systems of accountability, the 2010 Constitution seems to have created a fourth arm of the government, that of parastatals which collectively have far reaching functions and mandates (CCG, 2015).

Kenya's vision 2030 emphasizes the need for an appropriate economic pillar strategy for efficient and procuring best practices as a way of making the country globally competitive and a prosperous nation (Awino, 2011). Nevertheless, most parastatals in Kenya operate at a technical efficiency of about 42% compared to their counterparts in Malaysia that average about 78% (KIPPRA, 2016) raising doubts about the state agencies' capacity to meet the goals of vision 2030.

Kenya's parastatals are burdened by challenges such as misappropriation of the scarce resources, high cost of operations, unreliable vendors, low level technology utilization and declining trend of processes innovation (KNBS, 2012). In addition, these institutions in Kenya have been experiencing a myriad of problems including low quality goods, overpriced procurement contracts and gross mismanagement (GoK, 2015).

According to statistics from the World Bank (2013) there was a 42.7% drop in profits to Sh629 million from Sh1.64 billion a year earlier at Geothermal Development Company (GDC) and the public sector in general recorded a decline in performance. A report by CCG (2015) indicates that in some parastatals such as Kenya Electricity Generating Company (KenGen), the total operating expenditure increased by 52% compared to similar period in 2011.

Kenyan parastatals still face challenges although the country has recorded some improvements in the last years. Productivity of parastatals is quite low while at the same time they continue to absorb excessive portion of the budget, becoming a principal cause of long term procurement problems (Kinyanjui, 2010). Among the major challenges that are facing the parastatals are the long and time consuming bureaucratic procedures (Oakland, 2010).

Previous research by Howard (2014) in the UK, on the survey of the use of best practices in procurement, shows that use of the best practices in their processes improved procurement performance by 72%, while in Kenya, no empirical research has been undertaken to reliably quantify the influence of best practices on procurement performance. For this reason, parastatals in Kenya need to adopt procurement best practices that work for them in order to improve their procurement performance. It is against this backdrop that this study intends to look at the influence of procurement best practices in optimizing procurement performance among parastatals in Kenya.

### **1.3 Study Objectives**

- i. To assess the influence of reverse logistics management in optimizing procurement performance among parastatals in Kenya.
- ii. To establish the influence of business process outsourcing in optimizing procurement performance among parastatals in Kenya.
- iii. To determine the influence of strategic partnerships in optimizing procurement performance among parastatals in Kenya.
- iv. To evaluate the influence of organizational benchmarking in optimizing procurement performance among parastatals in Kenya.

## **2.0 Literature Review**

### **2.1 Theoretical Literature Review: The Stakeholder Theory**

According to Palevich (2012), he 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 (Bonn & Fisher, 2011).

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 (Fullerton, 2017). 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 (Gimenez & Tachizawa, 2012).

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 (Hall, 2014). 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 (Aguilera & Mandojana, 2013).

Consumers can reject the products of companies with poor reverse logistics management reputation (Amaoko & Samuel, 2016). 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 Amaoko and Samuel, (2016) 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.

## 2.2 Empirical Review

According to Palevich (2012) 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 (Robert, 2010).

According to Meegan *et al.*, (2014) in highly integrated and evolutionary technologies, applying the traditional core competence tests may result in outsourcing too many or the wrong functions. Because public organizations are sometimes perceived as inefficient and bureaucratic, managers may promote outsourcing ideas, to demonstrate their willingness to make positive changes in the organization. Another reason for public sector outsourcing may be better accountability. Kusek *et al.*, (2014) finds that managers in public organizations generally realize an accountability improvement in the particular function being outsourced

Joiner (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 Hooper (2010), benchmarking can enable the best practices from any industry to be creatively incorporated into the processes of the benchmarking function. Second, benchmarking breaks down the reluctance in making operational changes. In addition, benchmarking is a valuable tool for setting goals; it is something that is necessary in order to remain competitive and for learning new ideas (Jay *et al.*, 2010).

### 2.3 Conceptual framework

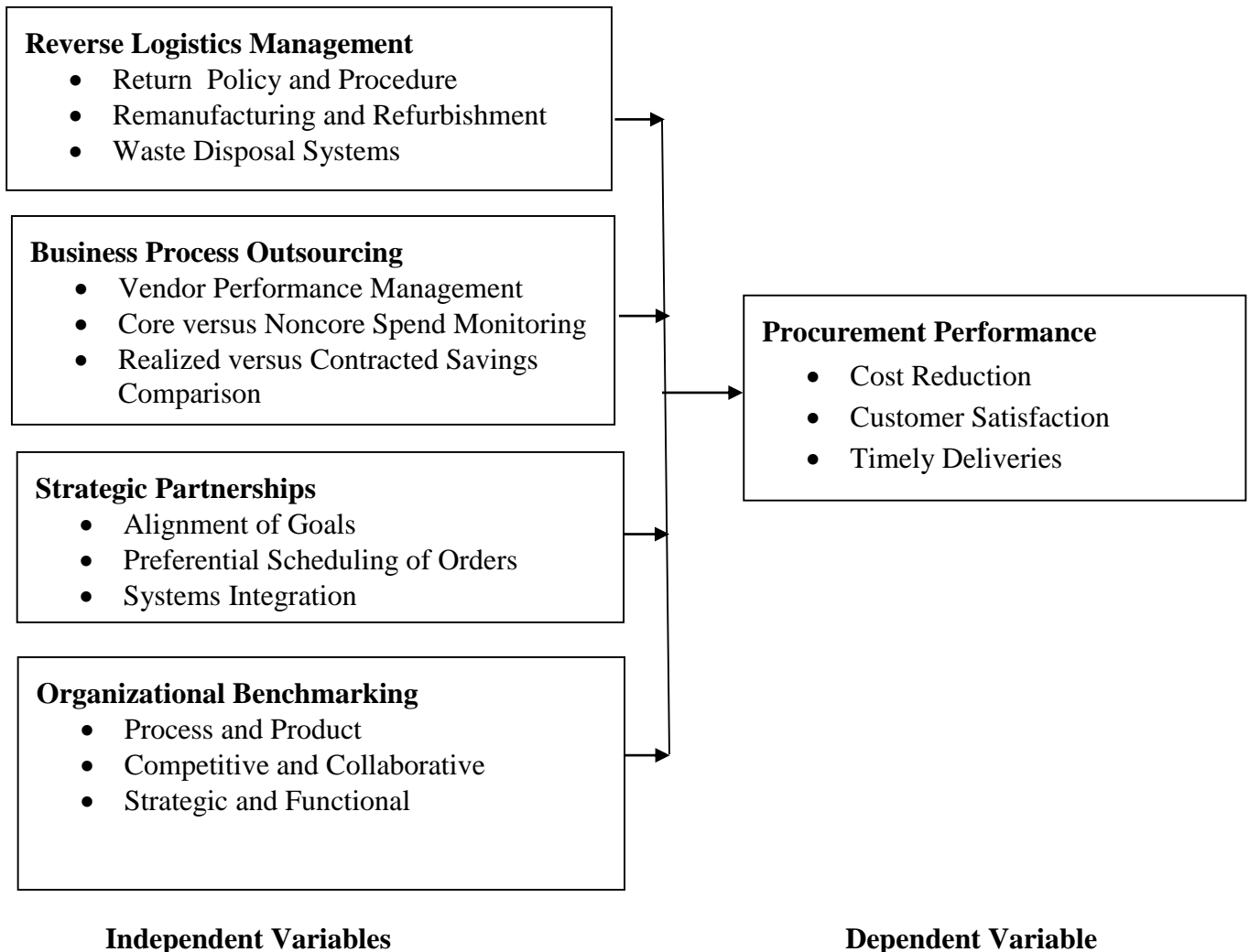


Figure 1: Conceptual Framework

### 3.0 Research Methodology

This research study adopted a descriptive research design approach targeting heads of procurement at the 187 parastatals. This method was preferred because it allowed an in-depth study of the subject. The study preferred this method because it allowed an in-depth study of the subject. To gather data, structured questionnaire will be used to collect data from a sample of 127 respondents, who were selected using simple random sampling, from the four strata. Once collected, data was analysed using descriptive and inferential statistics. Quantitative data was analysed using multiple regression analysis. The qualitative data generated was analysed by use of Statistical Package of Social Sciences (SPSS) version 21.

$$Y = a + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \epsilon$$

Where:

Y = Procurement Performance of Parastatals

$\beta_0$  = Constant

X<sub>1</sub> = Reverse Logistics Management

X<sub>2</sub> = Business Process Outsourcing

X<sub>3</sub> = Strategic Partnerships

X<sub>4</sub> = Organizational Benchmarking

$\epsilon$  = Error term

In the model  $a$  is the constant term while the coefficient  $\beta_1$  to  $\beta_4$  are used to measure the sensitivity of the dependent variable (Y) to unit change in the explanatory variable (X<sub>1</sub>, X<sub>2</sub>, X<sub>3</sub>, X<sub>4</sub>).  $\epsilon$ , is the error term which captures the unexplained variations in the model. The results are presented in form of tables, pie charts and graphs.

## 4.0 Results and Discussions

### 4.1 Response Rate

A sample of respondents were interviewed using questionnaires that allowed the researcher to drop the questionnaire to the respondents and then collect them at a later date when they had filled the questionnaires. A total of 127 questionnaires were distributed to employees. Out of the population covered, 104 were responsive representing a response rate of 82 %. This was above the 50% which is considered adequate in descriptive statistics according to (Kothari, 2014). Response rate results is presented in Table 1.

**Table 1: Response Rate of Respondents**

Response	Frequency	Percentage
Actual Response	104	82
Non-Response	23	18
<b>Total</b>	<b>127</b>	<b>100%</b>

### 4.2 Pilot Study

The cronbach's alpha was computed in terms of the average inter-correlations among the items measuring the concepts. The rule of thumb for cronbach's alpha is that the closer the alpha is to 1 the higher the reliability (Dunn, 2010). A value of at least 0.7 is recommended. Cronbach's alpha is the most commonly used coefficient of internal consistency and stability. Consistency indicated how well the items measuring the concepts hang together as a set. Cronbach's alpha was used to

measure reliability. This was done on the four objectives of the study. The higher the coefficient, the more reliable is the test. Results are presented in Table 2.

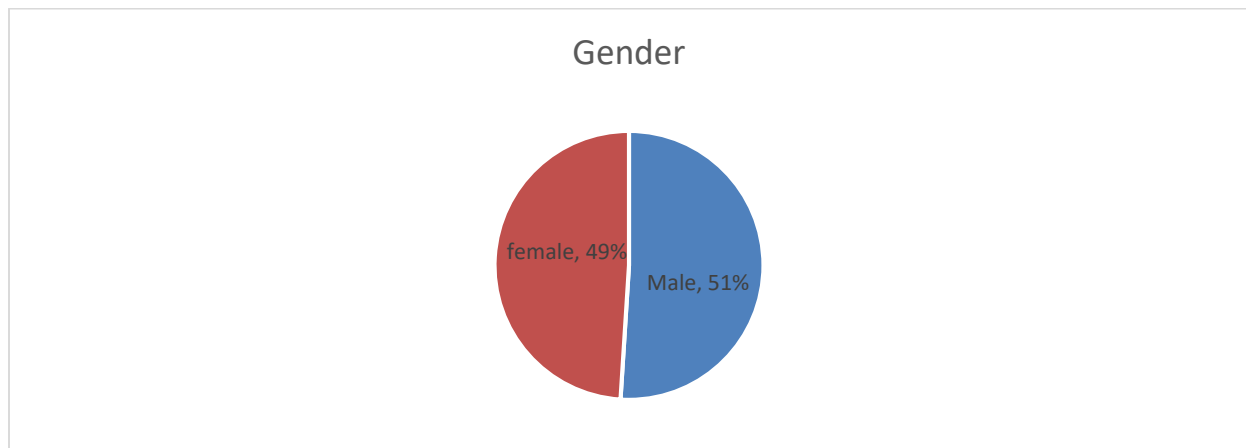
**Table 2 Reliability Results**

Variable	No. of Items	Respondents	$\alpha$ =Alpha	Comment
Reverse Logistics Management	9	13	0.893	Reliable
Business Process Outsourcing	9	13	0.987	Reliable
Strategic Partnerships	9	13	0.974	Reliable
Organizational Benchmarking	9	13	0.976	Reliable

### 4.3 Demographic Information

#### 4.3.1 Distribution of Respondents by Gender

The study determined the gender distribution of the respondents. The results summarized in the figure 2. The results revealed that majority of the respondent (51%) indicated that they were male, while only (49%) of the respondent indicated that they were female. The percentages may raise the issue of gender equity in public institutions in this country, but that is outside the scope of this study. A study on UK companies found that women and men do not differ in their ability to perform operational tasks, but rather bring a different perspective to strategic decision making (Gianakis, 2012).



**Figure 2 Distribution of Respondents by Gender**

#### 4.3.2 Distribution of Respondents by Age

The study determined the distribution of respondents by age. The results summarized in the table 3. The results revealed that majority of the respondent (46.2%) were above 50 years old, (24%) were 31-40 years old, while (29.8%) were between 41-50 years. The findings are in agreement with those of Hall (2014) who established that there are two natural age peaks of the early 30s and mid 40s which correlated to employee performance.



**Table 3: Distribution of Respondents by Age**

Years	Frequency	Percent
31-40 Years	25	24.0
41-50 Years	31	29.8
50 Years and above	48	46.2
<b>Total</b>	<b>104</b>	<b>100.00</b>

#### 4.3.3 Distribution of Respondents by Level of Education

The respondents were asked to state their highest level of education and the results in table 4 revealed that majority of the respondent (51%) indicated that their academic qualification was up to master’s level. The result further revealed that (49%) of the respondent indicated that their academic qualification was up to degree level. With majority respondents having degree and above, it is expected that their level of understanding of performance of parastatals is good. This is an indication that the results obtained from respondents interviewed in the present study can be relied upon. These findings concur those of Hatry (2016) who established that majority of who run public procurement are highly educated and that there is evidence linking education and public performance in parastatals.

**Table 4: Distribution of Respondents by Level of Education**

Education Level	Frequency	Percent
Undergraduate	51	49
Post-Graduate	53	51
<b>Total</b>	<b>104</b>	<b>100</b>

#### 4.3.4 Distribution of Respondents by Length of Service

The study determined the number of years the respondents had worked in their current office. The respondents were asked to indicate their work duration .The result in table 5 revealed that majority of the respondents (31.7%) indicated that their work duration was 6-8 years. The result also showed that (30.8%) of the respondent indicated that their work duration was 9 and above years above. The findings of the study are in tandem with literature review by Joiner (2012) who indicated that a duration and experience of employee helps him or her to have better knowledge and skills which contribute to procurement performance.

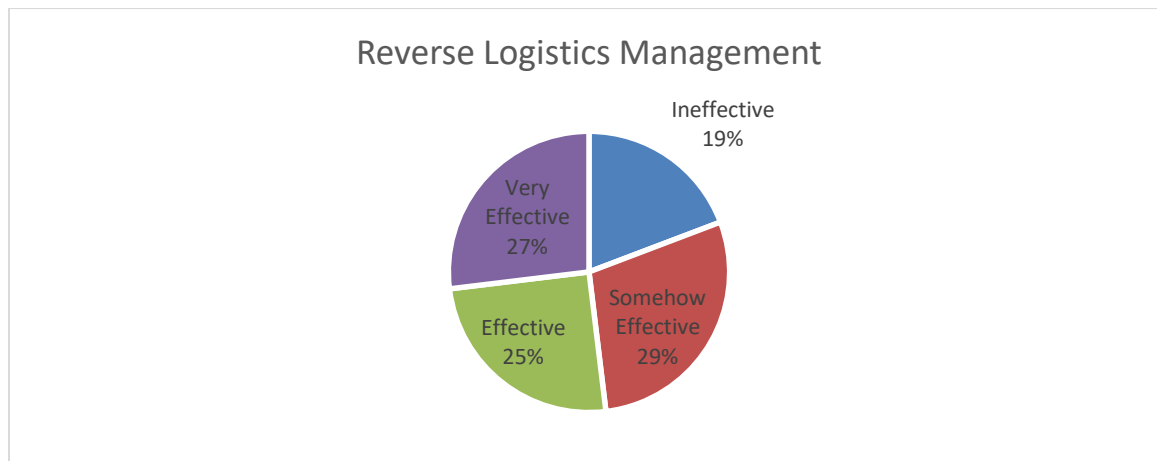
**Table 5: Distribution of Respondents by Length of Service**

Length of Service	Frequency	Percent
3-5 Years	39	37.5
6-8 Years	33	31.7
9 Years and above	32	30.8
<b>Total</b>	<b>104</b>	<b>100.0</b>

#### 4.4 Descriptive Statistics

##### 4.4.1 Reverse Logistics Management

The first objective of the study was to assess the influence of reverse logistics management on optimizing procurement performance among parastatals in Kenya. The respondents were asked to indicate to what extent reverse logistics management had an influence on optimizing procurement performance among parastatals in Kenya. Results in Figure 3 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: 3: Reverse Logistics Management**

The respondents were asked to indicate their responses on influence of reverse logistics management on optimizing procurement performance among parastatals in Kenya. The results revealed that majority of the respondent with a mean of (4.13) agreed with the statement that returns 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 remanufacturing 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 waste disposal 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 returns policy and procedure plays a significant role in attaining higher customer satisfaction was (4.22). The results were varied as shown by a standard deviation of 0.955. The average response for the statements on remanufacturing and refurbishment plays a significant role in attaining higher customer satisfaction 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 waste disposal systems play a significant role in attaining higher customer satisfaction. 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 returns 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 remanufacturing 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 waste disposal 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.

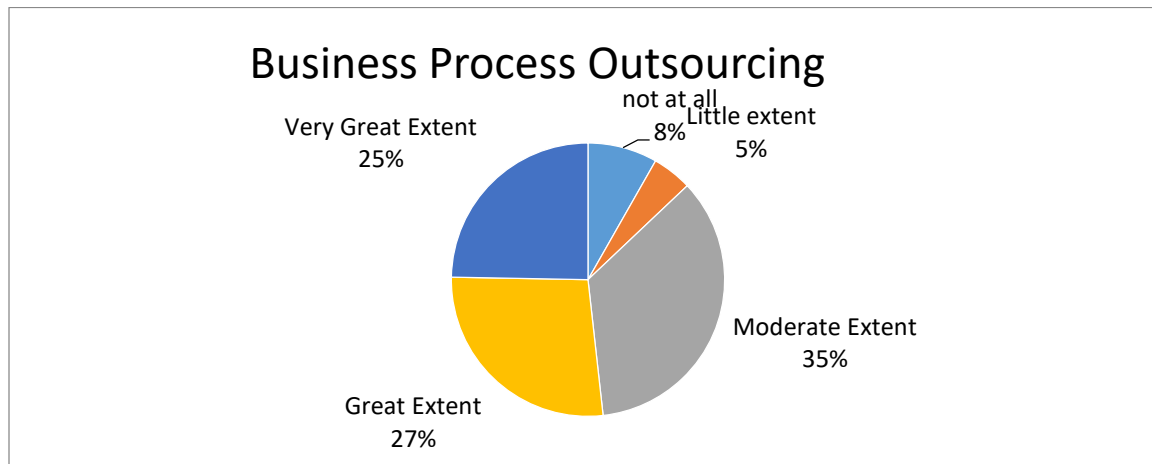
The average mean of all the statements was 4.01 indicating that majority of the respondents agreed on reverse logistics management having an influence on optimizing procurement performance among parastatals in Kenya. However the variations in the responses were varied as shown by a standard deviation of 0.81. These findings imply that reverse logistics management were at the heart of the organizations. The findings agree with Kinyanjui (2010) that using reverse logistics management as procurement best practice is a smart move and can reduce expenses significantly.

**Table 6: Reverse Logistics Management**

<b>Statements</b>	<b>Mean</b>	<b>Std. Deviation</b>
Returns policy and procedure plays a significant role in cost reduction	4.10	0.94
Remanufacturing and refurbishment plays a significant role in cost reduction	4.27	0.968
Waste disposal systems plays a significant role in cost reduction	4.55	0.5
Returns policy and procedure plays a significant role in attaining higher customer satisfaction	4.22	0.955
Remanufacturing and refurbishment plays a significant role in attaining higher customer satisfaction	4.41	0.704
Waste disposal systems plays a significant role in attaining higher customer satisfaction	4.46	0.787
Returns policy and procedure plays a significant role in attaining timely deliveries	4.44	0.786
Remanufacturing and refurbishment plays a significant role in attaining timely deliveries	4.21	0.942
Waste disposal systems plays a significant role in attaining timely deliveries	4.11	1.096
<b>Average</b>	<b>4.01</b>	<b>0.81</b>

#### 4.4.2 Business Process Outsourcing

The second objective of the study was to establish the influence of business process outsourcing on optimizing procurement performance among parastatals in Kenya. The respondents were asked to indicate to what extent business process outsourcing influenced optimizing procurement performance among parastatals 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 4: Business Process Outsourcing**

The respondents were also asked to comment on statements regarding business process outsourcing on optimizing procurement performance among parastatals 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 customer satisfaction 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 customer satisfaction 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 customer satisfaction. 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.

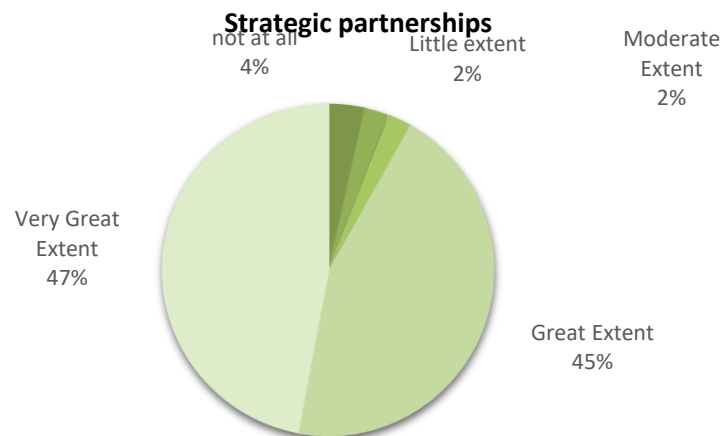
The average mean of all the statements was 3.77 indicating that majority of the respondents agreed on business process outsourcing having an influence on optimizing procurement performance among parastatals in Kenya. However the variations in the responses were varied as shown by a standard deviation of 1.134. These findings agree with Kirungu (2012) that through business process outsourcing, companies can improve competitive positioning.

**Table 7: Business Process Outsourcing**

<b>Statements</b>	<b>Mean</b>	<b>Std. Deviation</b>
Vendor performance management plays a significant role in cost reduction	3.58	1.0
Core versus noncore spend monitoring plays a significant role in cost reduction	3.63	0.9
Realized versus contracted savings comparison plays a significant role in cost reduction	3.6	0.7
Vendor performance management plays a significant role in attaining higher customer satisfaction	3.45	1.2
Core versus noncore spend monitoring plays a significant role in attaining higher customer satisfaction	3.5	1.0
Realized versus contracted savings comparison plays a significant role in attaining higher customer satisfaction	3.61	0.6
Vendor performance management plays a significant role in attaining timely deliveries	4.17	0.8
Core versus noncore spend monitoring plays a significant role in attaining timely deliveries	3.63	0.8
Realized versus contracted savings comparison plays a significant role in attaining timely deliveries	3.66	1.0
<b>Average</b>	<b>3.77</b>	<b>1.134</b>

#### 4.4.3 Strategic Partnerships

There was also need to establish influence of strategic partnerships on optimizing procurement performance among parastatals 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 5: Strategic Partnerships**

The respondents were asked to indicate their levels of agreement on statements regarding strategic partnership. 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 plays 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 customer satisfaction 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 customer satisfaction 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 plays a significant role in attaining higher customer satisfaction. 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 plays 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 partnerships having an influence on optimizing procurement performance among parastatals in Kenya. However the variations in the responses were varied as shown by a standard

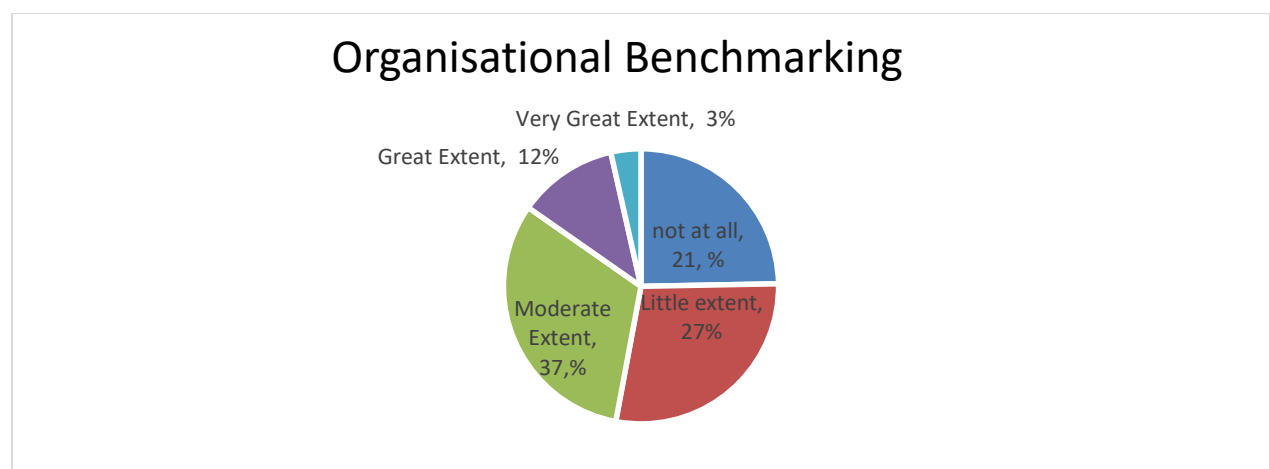
deviation of 0.9. The results are in tandem with Lin and Lee (2011) who opine that an organization benefits greatly when strategic partnerships are embraced in their supplier relations.

**Table 8: Strategic Partnerships**

Statements	Me an	Std. Deviation
1. Alignment of goals play a significant role in cost reduction	3.8	0.9
2. Preferential scheduling of orders play a significant role in cost reduction	4.9	0.9
3. Systems integration plays a significant role in cost reduction	3.4	1.3
4. Alignment of goals play a significant role in attaining higher customer satisfaction	3.6	1.2
5. Preferential scheduling of orders play a significant role in attaining higher customer satisfaction	4.1	0.8
6. Systems integration plays a significant role in attaining higher customer satisfaction	4.1	0.9
7. Alignment of goals play a significant role in attaining timely deliveries	4.0	1.0
8. Preferential scheduling of orders play a significant role in attaining timely deliveries	4.2	0.8
9. Systems integration plays a significant role in attaining timely deliveries	3.9	0.9
<b>Average</b>	<b>3.8</b>	<b>0.9</b>

#### 4.4.4 Organizational Benchmarking

There was also need to establish the influence of organizational benchmarking on optimizing procurement performance among parastatals 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%.



**Figure 6: Organizational Benchmarking**

The respondents were asked to indicate their views on organisational benchmarking. The results revealed that majority of the respondent with a mean of (4.5) agreed with the statement that process and product benchmarking 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 competitive and collaborative benchmarking 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 strategic and functional benchmarking 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 process and product benchmarking plays a significant role in attaining higher customer satisfaction was (4.5). The results were varied as shown by a standard deviation of 0.5. The average response for the statements on ccompetitive and collaborative benchmarking plays a significant role in attaining higher customer satisfaction 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 strategic and functional benchmarking plays a significant role in attaining higher customer satisfaction. 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 process and product benchmarking 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 ccompetitive and collaborative benchmarking 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 strategic and functional benchmarking 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 organizational benchmarking having an influence on optimizing procurement performance among parastatals in Kenya. However the variations in the responses were varied as shown by a standard deviation of 0.8. The results agree with Muge (2013) that an organization that embraces organizational benchmarking benefits greatly in its operations.



**Table 9: Organizational Benchmarking**

<b>Statements</b>	<b>Me an</b>	<b>Std. Deviation</b>
Process and product benchmarking plays a significant role in cost reduction	4.5	0.5
Competitive and collaborative benchmarking plays a significant role in cost reduction	3.9	0.8
Strategic and functional benchmarking plays a significant role in cost reduction	3.2	1.4
Process and product benchmarking plays a significant role in attaining higher customer satisfaction	4.5	0.5
Competitive and collaborative benchmarking plays a significant role in attaining higher customer satisfaction	4.4	0.6
Strategic and functional benchmarking plays a significant role in attaining higher customer satisfaction	4.4	0.9
Process and product benchmarking plays a significant role in attaining timely deliveries	4.3	0.7
Competitive and collaborative benchmarking plays a significant role in attaining timely deliveries	4.2	1.0
Strategic and functional benchmarking plays a significant role in attaining timely deliveries	4.1	1.0
<b>Average</b>	<b>4.2</b>	<b>0.8</b>

#### 4.5 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 9 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 affecting optimizing procurement performance among parastatals in Kenya, Pearson correlation coefficient computed and tested at 5% significance level.

The results in Table 10 indicate that there is a positive relationship ( $r=.509$ ) between reverse logistics management and optimal procurement performance among parastatals 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 business processing outsourcing and optimal procurement performance among parastatals 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 partnerships and optimal procurement performance among parastatals 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 organisational benchmarking and optimal procurement performance among parastatals 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 optimal procurement performance among parastatals in Kenya, on the basis of the correlation analysis.

**Table 10: Summary of Pearson’s Correlations**

Correlations		Reverse Logistics Management	Business Process Outsourcing	Strategic Partnerships	Organizational Benchmarking	Procurement Performance
<b>Reverse Logistics Management</b>	Pearson Correlation	1.000				
	Sig.(2-Tailed)					
<b>Business Process Outsourcing</b>	Pearson Correlation	.263**	1.000			
	Sig.(2-Tailed)	0.007				
<b>Strategic Partnerships</b>	Pearson Correlation	.350**	.346**	1.000		
	Sig.(2-Tailed)	0.000	0.000			
<b>Organizational Benchmarking</b>	Pearson Correlation	.363**	.516**	.543**	1.000	
	Sig.(2-Tailed)	0.000	0.000	0.000		
<b>Procurement Performance</b>	Pearson Correlation	.509**	.398**	.678**	.685**	1.000
	Sig.(2-Tailed)	0.000	0.000	0.000	0.000	

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

#### 4.6 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 (optimal procurement performance among parastatals in Kenya) which can be predicted from the independent variables (reverse logistics management, business process outsourcing, strategic partnerships, organizational benchmarking).

Table 11 to Table 13 present 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 .805<sup>a</sup> 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 optimal procurement performance among parastatals in Kenya can be explained or predicted by (reverse logistics management, business process outsourcing, strategic partnerships, organizational benchmarking) which indicated that the model fitted the study data.

Adjusted R square in table 4.11 is called the coefficient of determination which indicates how optimal procurement performance among parastatals in Kenya varied with variation in effects of factors which includes; reverse logistics management, business process outsourcing, strategic partnerships, organizational benchmarking. 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 11: Model Summary**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.805 <sup>a</sup>	.647	.633	.166295

a) Predictors: (Constant), Reverse Logistics Management, Business Process Outsourcing, Strategic Partnerships, Organizational Benchmarking

b) Dependent Variable: Procurement Performance among Parastatals

**Table 12: ANOVA**

	Model	Sum of Squares	df	Mean Square	F	Sig.
1	Regression	5.027	4	1.257	45.449	.000 <sup>b</sup>
	Residual	2.738	99	0.028		
	Total	7.765	103			

a) Predictors: (Constant), Reverse Logistics Management, Business Process Outsourcing, Strategic Partnerships, Organizational Benchmarking

b) Dependent Variable: Procurement Performance among Parastatals

The significance value is 0.000 which is less than 0.05 thus the model is statistically significance in predicting how reverse logistics management, business process outsourcing, strategic partnerships, organizational benchmarking influence procurement performance among parastatals in Kenya. The F critical at 5% level of significance was 26.5. Since F calculated which can be noted from the ANOVA table above is 45.449 which is greater than the F critical (value= 26.5), this shows that the overall model was significant. The study therefore establishes that; reverse

logistics management, business process outsourcing, strategic partnerships, organizational benchmarking were all important procurement best practices influencing performance of procurement among parastatals. These results agree with Rotich (2011) results which indicated a positive and significant influence of procurement best practices on performance of procurement among parastatals.

**Table 13: Coefficients of Determination**

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	2.353	0.202		11.619	0.000
Organizational Benchmarking	0.183	0.037	0.392	4.948	0.000
Reverse Logistics Management	0.158	0.045	0.232	3.546	0.001
Strategic Partnerships	0.121	0.023	0.383	5.272	0.000
Business Process Outsourcing	0.001	0.036	0.001	0.021	0.040

a) Predictors: (Constant), Reverse Logistics Management, Business Process Outsourcing, Strategic Partnerships, Organizational Benchmarking

b) Dependent Variable: Procurement Performance among Parastatals

The research used a multiple regression model

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \epsilon$$

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 management, business process outsourcing, strategic partnerships, and organizational benchmarking) constant at zero, optimal procurement performance among parastatals in Kenya 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 management will lead to a 0.158 increase in implementation of the optimal procurement performance. 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 businesses process outsourcing will lead to a 0.001 increase in implementation of the optimal procurement performance. The P-value was 0.04 and thus the relationship was significant. In addition, the study found that a unit increase in strategic partnerships will lead to a 0.121 increase in the optimal procurement performance. The P-value was 0.000 and thus the relationship was significant.

Lastly, the study found that organisational benchmarking will lead to a 0.183 increase in the optimal procurement performance. 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, organizational benchmarking contributed most to the optimal procurement performance.

## 5.0 Conclusions

First, in regard to organizational benchmarking, the regression coefficients of the study show that it has a significant influence of 0.183 on performance of procurement among parastatals. This implies that increasing levels of organizational benchmarking by a unit would increase the levels of performance of procurement among parastatals by 0.183. This shows that organizational benchmarking has a positive influence on performance of procurement among parastatals.

Second in regard to reverse logistics management, the regression coefficients of the study show that it has a significant influence of 0.158 on performance of procurement among parastatals. This implies that increasing levels of reverse logistics management by a unit would increase the levels of performance of procurement among parastatals by 0.158. This shows that reverse logistics management has a positive influence on performance of procurement among parastatals.

With regard to strategic partnerships, the regression coefficients of the study show that it has a significant influence of 0.121 on performance of procurement among parastatals. This implies that increasing levels of strategic partnerships by a unit would increase the levels of performance of procurement among parastatals by 0.121. This shows that strategic partnerships have a positive influence on performance of procurement among parastatals.

Lastly, in regard to the fourth objective, the regression coefficients of the study show that it has a significant influence of 0.001 on performance of procurement among parastatals. This implies that increasing levels of business process outsourcing by a unit would increase the levels of performance of procurement among parastatals by 0.001. This shows that business process outsourcing have a positive influence on performance of procurement among parastatals.

Drawing on this research, lack of reverse logistics management, business process outsourcing, strategic partnerships, and organizational benchmarking in parastatals is leading to poor procurement performance. Though the parastatals are striving hard to improve their procurement performance there are still issues of poor quality products, long lead time and high cost of projects/products. It was articulated that the current phenomenon of poor procurement performance in the public sector can be reversed if the government and other stakeholders ensure reverse logistics management; business process outsourcing, strategic partnerships, and organizational benchmarking are embraced in the procurement function.

## 6.0 Recommendations

The study is a milestone for further research in the field of performance of procurement among parastatals in Africa and particularly in Kenya. The findings demonstrated the important procurement best practices to the performance of parastatals to include; reverse logistics management, business process outsourcing, strategic partnerships, and organizational benchmarking. The current study obtained an  $R^2$  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 procurement performance of parastatals. Existing literature indicates that as a future avenue of research, there is need to undertake similar research in other institutions and public sector organizations in Kenya and other countries in order to establish whether the explored procurement best practices platforms herein can be generalized to affect procurement performance in other public institutions.

## 7.0 Reference

- Aguilera, J., & Mandojana, N. (2013). "Green innovation and financial performance: An institutional approach". *Organization and Environment*, 2(6), 365-385.
- Al-Mashari, M., & Zairi, M. (2010). BPR implementation process: an analysis of key success and failure factors. *Business Process Management Journal* 5(1), 87-112.
- Amaoko, K., & Samuel, F. (2016). "Sustainability and Competitive advantage from a developed economy. *Journal of Global Responsibility*, 7(1), 110-125.
- Awino, O. (2011). An empirical investigation of supply chain management on firms' performance. *International Journal of Business Administration and Management*, 8(3), 12-26.
- Bonn, I. & Fisher, J. (2011). "Sustainability: the missing ingredient in strategy", *Journal of Business Ethics*, 32(1), 15-34.
- CCG (2015). *National Development Fund Report Instructional Structures and Reforms*. Nairobi:
- Dunn, S. D. (2010). *Statistics and Data analysis for the Behavioural Science*: Mc Graw Hill
- Fullerton, K. (2017). "Reflecting on Rwanda's plastic ban". *International Development Journal*. Retrieved from: <https://idjournal.co.uk>. November, 2017.
- George, A., Andrew, K., & Christopher, C. (2012). "4Es and 4 Poles of Sustainability: Redefining sustainability in the build environment". *Structural Survey*, 10(5), 23-42.
- George, D., & Mallery, P. (2013). *SPSS for Windows step by step: A simple guide* Longman Publishers, Nairobi, Kenya Debt structure [Electronic Version].
- Gianakis, G. (2012). "The promise of public sector performance measurement: anodyne or placebo?" *Public Administration Quarterly*, 5(3), 26-43.
- Gimenez, C., & Tachizawa, E. (2012). "Extending sustainability to suppliers: a systematic literature review", *International Journal of Supply Chain Management*, 17(5), 531-543.
- Government of Kenya (2015). *Status of the economy*, Government press, Nairobi.

- Hall, J. (2014). Environmental Supply Chain Dynamics. *Journal of Production and Operation Management*, 44(9), 143-147.
- Hatry, H. (2016). *Performance Measurement: Getting Results*. 2nd ed. Washington, DC: The Urban Institute.
- Hooper, A., & Potter, J. (2010). *Intelligent Leadership: Creating Passion for Change*. Randon House Business.
- Howard, T. (2014). *Strategic management research*, 2nd edition. London: Oxford University Press.
- Isaac, S., & Michael, W. (2015). *Handbook in Research and Evaluation for Education and the Behavioral Sciences*. Macdonald and Evans, Ohio, U.S.A.
- Jay, G.W., & Alec, F.L. (2010). *Strategy Implementation*. Westport, CT: Praeger.
- Jha, R. (2010). *Customer focused collaborative demand planning in Hi-Tech Industry*, Massachusetts Institute of Technology, USA.
- John, G., & Johnson, P. (2012). *Research methods for Managers*, 4th Edition. Sage Publications: London.
- Joiner, T. (2012). Procurement management and performance: the role of organization support and co-worker support. *International journal of reliability management*, 24(6), 617-627.
- Kakwezi, P., & Nyeko, S. (2010). *Procurement Processes and Performance: Efficiency and Effectiveness of the Procurement Function*: Makerere University Press, Kampala.
- Kasomo, D. (2011). *Research Methods in Humanities and Education*, Eldoret; Zapf Chancery.
- Kazemi, M., & Hooshyar, V. (2013). *Determining the Readiness Levels of University Chancellors to Use Procurement Best Practices- Case Study: A State University*; Higher Education Magazine, 8(7), 85-108.
- Kenneth, M. Lysons, S., & Farrington, T. (2012). *Purchasing and Supply Chain Management: Seventh Edition*, Person Education Limited.

Mann, S., & Zhang, T. (2010). Some cultural/geographical styles in strategies and costs (P.R. China versus Australia), *International Journal of Production Economics*, 4(1), 81-92.

Masters, R. J. (2011). *Overcoming the barriers to TQM's success*, *Quality Progress*, 29(5), 53-55.

Meegan, S., & Taylor, W. (2014). Factors influencing a successful transition from ISO 9000 to TQM: the influence of understanding and motivation, *International Journal of Quality and Reliability Management*, 2(1), 71-92.

Muge, P. (2013). Procurement practices in public institutions in Kenya. *Supply chain management journal*, 1(2), 13-28.

Mugenda, O., & Mugenda, A. (2014). *Research methods quantitative and qualitative approaches*. Nairobi: Acts Press.

Neuman, W.L. (2010). *Social Research Methods: Qualitative and Quantitative Approaches* (Fourth Edition ed.) Boston.

Ngechu, M. (2011). Understanding the Research Process and Methods. *An Introduction to Research Methods*. Acts press, Nairobi.

Nwabueze, U. (2011). An industry betrayed: the case of total quality management in manufacturing, *International Journal of Human Resource and Research Publication*, 13(6), 20-48.

Nyeko, P. K. (2013). *Procurement Processes and Performance: Efficiency and Effectiveness of the Procurement Function*.

Oakland, J. (2010). *Best Procurement Management (2ed)*. Oxford, Great Britain: Butterworth-Heinemann.

Oso, Y., & Onen, D. (2010). *A general Guide to Writing Research Proposal and Report*. Kisumu: Options Printers and Publishers.

Owegi, F., & Aligula, E. (2012). Public sector procurement in Kenya: The need for a coherent policy framework. *International Journal of Logistics and Supply Chain Management*, 8(6), 40-48.



- Palevich, R. (2012). *The lean sustainable supply chain: how to create a green infrastructure with lean technologies*, Pearson Education, Inc., London.
- Paul, S. (2011). Procurement policies in public corporations. *Journal of Purchasing*, 3(6), 4 24.
- PPOA (2010). *Assessing Procurement Systems in Kenya Report*. Nairobi: Public Oversight Authority.
- Robert, G. (2010). Transaction-Cost Economics: Past, Present, and Future? *Scandinavian Journal of Economics*, April 13, 2010.
- Rotich, L.M. (2011). Influence of Planning on Procurement Performance in the Kenya, *International Journal of Human Resource and Research Publication*, 1(2), 289-292.
- Samuel, O.L. (2012). *Procurement Best Practices System of Uniliver Ghana Limited* (Unpublished doctorate's dissertation). St. Clement University, Turks and Caicos Island.
- Saunders, M. (2012). *Research for business students* (6 ed.). Financial Times Prentice Hall.
- World Bank (2013). "Reducing Supply Chain Barriers Could Increase Global GDP Up To 6 Times More Than Removing All Import Tariffs Report", Switzerland