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**INFLUENCE OF PROCUREMENT AUDITING ON
PERFORMANCE OF PARASTATALS IN KENYA**

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INFLUENCE OF PROCUREMENT AUDITING ON PERFORMANCE OF PARASTATALS IN KENYA

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Abstract

Purpose: The purpose of the study was to determine the influence of procurement auditing on the performance of parastatals in Kenya with an aim of making recommendations to other institutions.

Methodology: The study employed a descriptive research design, targeting heads of procurement in parastatals. As a rule of thumb when the population is below 200, a study does a census. The researcher preferred this method because it allowed an in-depth study of the subject. Data was collected using self-administered questionnaires. Pilot study was carried out to establish the validity and reliability of the research instruments. The instruments were designed appropriately according to the study objectives. The data collected was analyzed by use of descriptive and inferential statistics. The study used multiple regression and correlation analysis to show the relationship between the dependent variable and the independent variables. The data generated was keyed in and analyzed by use of Statistical Package of Social Sciences (SPSS) version 24 to generate information which was presented using charts, frequencies and percentages.

Results and conclusion: R square value of 0.768 means that 76.8% of the corresponding variation in performance of parastatals in Kenya can be explained or predicted by (planning audit, awareness audit, evaluation audit and contract management audit) 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 ($\beta = 0.761$), $p=0.000 < 0.05$). The findings of the study indicated that planning audit, awareness audit, evaluation of received tenders auditing, contract management audit have a positive relationship with performance of parastatals in Kenya

Policy recommendation: The study recommends that public institutions should embrace public procurement audit 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: *planning audit, awareness audit, evaluation auditing, contract management audit*

1.1 Introduction

Public procurement is audited to verify whether there was an actual need for a given procurement; whether the procurement procedure achieved value for money, and whether public procurement regulations were adhered to. The auditing function has the primary objective of providing reasonable assurance that a set of specified and established criteria have been complied with; and it involves the collection and evaluation of sufficient evidence to determine whether an assertion corresponds with established criteria (Smith, 2017). The two main forms of audits often referred to are: internal and external audits.

The main difference between these two borders on the extent of details; whilst internal audit generally is concerned about the whole operations of an institution with respect to certain five key internal control objectives and not just the financial aspects, external audits mainly focuses on financial control systems that have direct, significant effect on the financial performance of the institution (Schapper & Paul, 2016).

Drawing from the definitions Richard (2017), public procurement audit can be explained as the process of gathering and evaluating sufficient evidence on government procurement activities to ascertain whether specified laid down procedures have been complied with or not. Public procurement audits are seen as very important to the realization of value addition to government procurement in terms of ensuring accountability, transparency, prevention of improper procurement practices, and improving upon past procurement performance (Wayne State University, 2018).

The basic reason for conducting audits including public procurement audits is to ascertain whether performance measures up to pre-determined standards within defined parameters so that changes can be implemented to improve standards (Hart, Northmore & Gerhardt, 2016). Some specific reasons for public procurement audits are; to prevent fraud, to provide assurance with regards to effective and efficient operations, to ensure reliable financial reporting, to comply with laws and regulations, to address corruption, and to prevent future mistakes (Krivinsh & Vilks, 2017).

1.2 Statement of the Problem

In the recent past, a number of reports appearing in the print media reveal operational constraints in areas of operations management, fleet management, management information, and aspects which include uncertainty of customer demands, long supplier leads times, and inaccurate procurement needs estimation (World Bank, 2017). As the clock ticks, so does demand for better quality, faster delivery, and better overall value increase; leading to a few visionary leaders to start to consciously differentiate between the things that create value and those that do not and thus leading to adoption of public procurement audit (KPMG, 2016).

The systems audit for State law Office (SLO) report revealed losses of Kshs.18 Million through irregular manual procurements in financial year (FY) 2015/2016. Earlier, in the FY 2018/2015, SLO had lost Kshs.8 Million due to manual procurement related inefficiencies. This raises questions on the level of performance of SLO's procurement system as a state corporation. This situation is hampering sustained performance and service delivery (PPOA, 2018).

According to an annual Kenya Power customer satisfaction survey of 2016 and 2017, carried out by a contracted vendor, it is notable that the satisfaction percentage index has been fluctuating towards more and more dissatisfaction, that is, 79% and 76% respectively (Makau, 2018). On the other hand, Kenya Power faces a major challenge in controlling the overall sourcing costs because of the constant increase due lack of credible audit; this is evident by Kenya Power posting a decrease in profit prior to tax of Ksh.6 Billion compared to Ksh.8 Billion noted in the previous year (OECD, 2017).

A number of studies have been conducted on public procurement audit globally. For instance, Cousins (2015) conducted a survey on 21 state energy corporations in the UK and found out that though 92% claimed procurement audit seemed to have reduced transaction costs. The studies found that the investigated state energy corporations looked at procurement audit. This study was however, conducted in a developed country and not in Kenya.

Several studies have been done locally; Kioko and Were (2018) did a study on factors affecting efficiency in public procurement audit in the private sector in Kenya. These studies however, did not look at influence of procurement auditing on the performance of parastatals. It is against this back drop that this study seeks to examine the influence of procurement auditing on the performance of parastatals in Kenya.

1.3 Objectives of the Study

- i. To assess the influence of planning audit on the performance of parastatals in Kenya.
- ii. To establish the influence of awareness audit on the performance of parastatals in Kenya.
- iii. To determine the influence of evaluation audit on the performance of parastatals in Kenya.
- iv. To evaluate the influence of contract management audit on the performance of parastatals in Kenya.

2.0 LITERATURE REVIEW

2.1 Theory of Constraints

Theory of constraints is an approach to the management of operations and it was developed by Goldratt (1981). It provides a supply chain management theory of how organizations should be run especially the when planning and preparing for procurement audit. There is always one constraint and the TOC uses a focusing process to identify the constraint and restructure the planning around it (Kotabe & Murray, 2015).

TOC emphasizes on the optimization of performance within a defined set of constraints of the existing process and it provides an action framework which combines the activities of the managers and the visible system elements (Hansen, Schaumburg-Muller & Pottenger, 2015). TOC views planning audit as systems consisting of resources, which are linked by the processes they perform. The goal of planning audit is to serve as the primary judge of success. Within that system, a constraint is defined as anything that limits planning audit from achieving higher performance relative to its purpose (Tummala, Phillips & Johnson, 2016).

The theory of constraints defines a set of tools that change agents can use to manage constraints, thereby increasing profits. Most businesses can be viewed as a linked set of processes that transform inputs into saleable outputs (European Commission, 2017). TOC conceptually models this system as a chain, and advocates the familiar adage that a chain is only as strong as its weakest link (Busi & McIvor, 2015). In this particular study theory of constraints is adopted and linked to planning audit variable.

2.2 Procurement Auditing

2.1.1 Planning Audit

Planning in procurement, just like every human endeavor, is essential for the smooth performance of the audit work and its successful completion. Planning ahead for the procurement process will not only guarantee a valid audit opinion (Davis, 2018). Audit planning is a non-obligatory but helpful measure which enhances the quality of auditing process with clear-cut results and conclusions. It is often seen as an important task to better identify the risks an enterprise may face in upcoming financial period (Kagai, 2017).

Audit planning is a set of steps in pre-auditing, auditing and post-auditing processes. In international practice, an audit strategy should be established before audit planning. Audit strategy and audit plan has many similarities in essence, but audit plan is more detailed, while audit strategy embraces overall actions. Audit strategy helps auditor take appropriate orientation, make better choice of risk identification and assessment procedures, select appropriately team members with relevant skills and experience, set clear audit objectives and necessary audit resources (Marco, 2015).

2.1.2 Awareness Audit

In an open procedure, any company interested in participating has the opportunity to submit a bid (Voleza, 2018). The bid must conform to the requirements of the administrative department that issued the tender document. No alterations of the standard application documents, e.g. of the legal terms and conditions contained in them are permissible, as that would make it very difficult if not impossible to compare the offers. The terms of contract are thus laid out exclusively by the office calling for the bids. Any violation of this principle by a bidder automatically disqualifies him and his submission is rejected, all these detailed are well laid out in the tender advert (Oakland, 2017).

2.1.3 Evaluation Audit

Tendering is an effective contracting method to achieve favorable outcomes for both public and private entities. It is a complex business process and generates a series of contractually related liabilities (Rambo, 2016). Tender evaluation is a critical activity in a capital construction project and is normally the accepted means of obtaining a fair price and best value for undertaking construction works. The primary quality into the evaluation of tender offers provide a viable

means of managing the risk of non-conformance and the failure to attainment project outcomes, without violating the principles of fairness, transparency and value for money, particularly in respect of professional service contracts (Smith, 2015).

2.1.4 Contract Management Audit

Contract administration includes activities of a buyer during a contract period to ensure that all parties to the contract fulfill their contractual obligation (Bailey, 2015). Contract life cycle management is the process of systematically and efficiently managing the contract creation, execution and analysis of maximizing operational and financial performance and minimizing risks (Elsley, 2016).

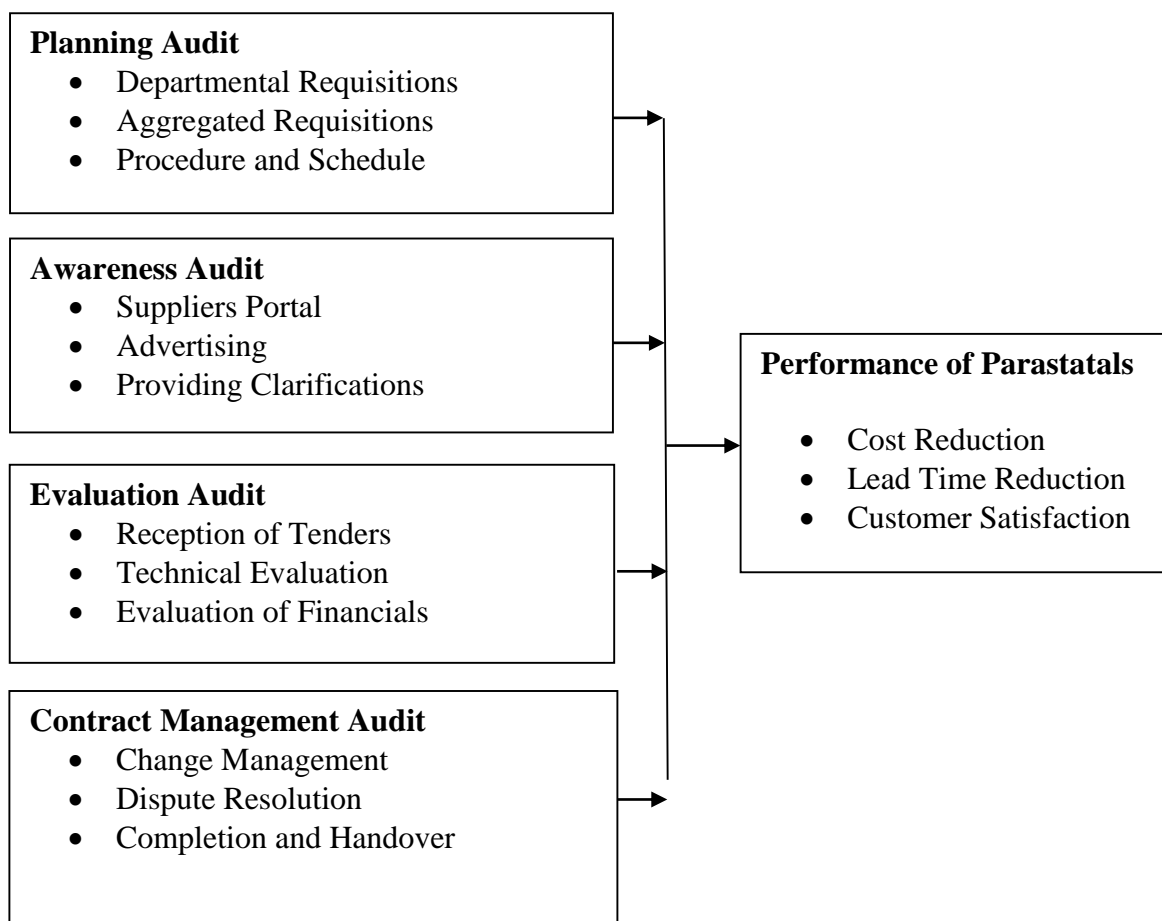


Figure 1: Conceptual Framework

3.0 METHODOLOGY

The study employed a descriptive research design, targeting heads of procurement in parastatals. As a rule of thumb when the population is below 200, a study does a census. The researcher preferred this method because it allowed an in-depth study of the subject. Data was collected using self-administered questionnaires. Pilot study was carried out to establish the validity and

reliability of the research instruments. The instruments were designed appropriately according to the study objectives. The data collected was analyzed by use of descriptive and inferential statistics. The study used multiple regression and correlation analysis to show the relationship between the dependent variable and the independent variables. The data generated was keyed in and analyzed by use of Statistical Package of Social Sciences (SPSS) version 24 to generate information which was presented using charts, frequencies and percentages. The research used a multiple regression model.

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

The research will use a multiple regression model.

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

Where:

Y	= Performance of Parastatals in Kenya
β_0	= Constant
$\beta_1, \beta_2, \beta_3, \beta_4$	= Beta Coefficients
X1	= Planning Audit
X2	= Awareness Audit
X3	= Evaluation Audit
X4	= Contract Management Audit
ε	= Error Term

4.0 RESULTS FINDINGS

4.1 Descriptives

4.1.1 Planning Audit

The first objective of the study was to assess the influence of planning audit on performance of parastatals in Kenya. The respondents were asked to indicate to what extent did planning audit affect had on performance of 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.

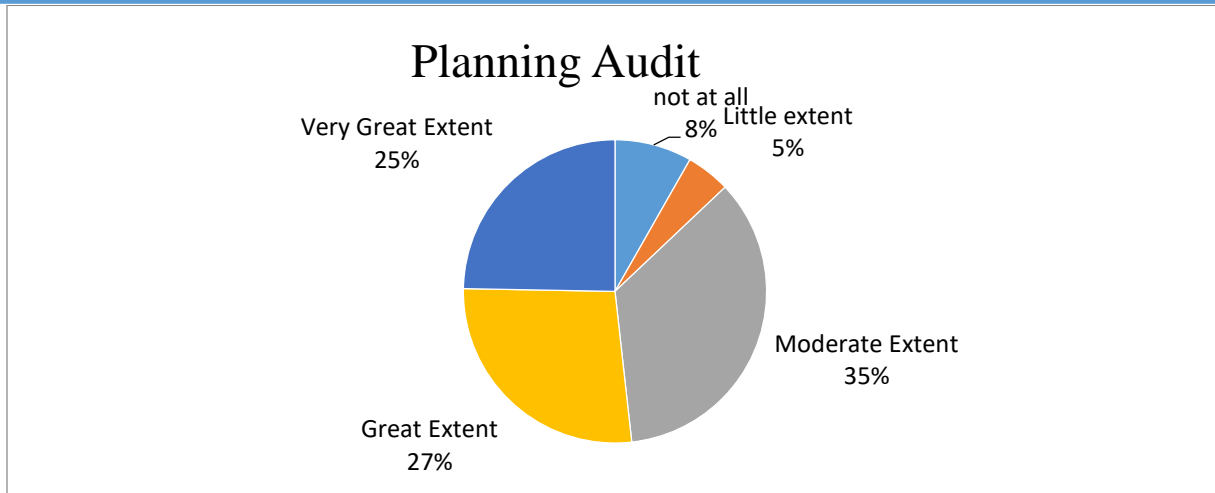


Figure 2: Planning Audit

The respondents were also asked to comment on statements regarding planning audit on performance of parastatals in Kenya.

The respondents were asked to indicate the descriptive for planning audit. The result revealed that majority of the respondent (62%) agreed with the statement that departmental requisitions play a great role in cost reductions. The result revealed that majority of the respondent (72.7%) agreed with the statement that aggregated requisitions plays a great role in cost reductions. The result also revealed that majority of the respondent (64.7%) agreed with the statement that procedure and schedule play a great role in cost reductions.

Further, the results revealed that majority of the respondent (100%) agreed with the statement that departmental requisitions play a great role in reducing lead time. Results also revealed that majority of the respondent (98.7%) agreed with the statement that aggregated requisitions play a great role in reducing lead time. The result revealed that majority of the respondent (99.3%) agreed with the statement that procedure and schedule play a great role in reducing lead time.

Results further indicated that majority of the respondent (97.3%) agreed with the statement that departmental requisitions play a great role in customer satisfaction. Results revealed that majority of the respondent (62.6%) agreed with the statement that aggregated requisitions play a great role in customer satisfaction. Finally, the results revealed that majority of the respondent (97.3%) agreed with the statement that procedure and schedule plays a great role in customer satisfaction. The average for the statements on planning audit was 4.25. The results imply that an organization benefits greatly when planning audit is embraced to reduce costs and work with the organization to streamline performance (Mackie, 2015).

Table 1: Planning Audit

Statements	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Mean	Std. Deviation
Departmental requisitions auditing plays a great role in cost reductions	1.30%	1.30%	35.30%	29.30%	32.70%	3.91	0.92
Aggregated requisitions plays a great role in cost reductions	0.70%	2.00%	24.70%	36.00%	36.70%	4.06	0.87
Procedure and schedule play a great role in cost reductions	1.30%	1.30%	32.70%	28.00%	36.70%	3.97	0.93
Departmental requisitions auditing plays a great role in reducing lead time	0.00%	0.00%	0.00%	53.30%	46.70%	4.47	0.50
Aggregated requisitions plays a great role in reducing lead time	1.30%	0.00%	0.00%	48.70%	50.00%	4.46	0.64
Procedure and schedule play a great role in reducing lead time	0.00%	0.70%	0.00%	51.30%	48.00%	4.47	0.54
Departmental requisitions auditing plays a great role in customer satisfaction	2.00%	0.70%	0.00%	43.30%	54.00%	4.47	0.73
Aggregated requisitions plays a great role in customer satisfaction	0.00%	0.00%	37.30%	29.30%	33.30%	3.96	0.84
Procedure and schedule plays a great role in customer satisfaction	1.30%	1.30%	0.00%	45.30%	52.00%	4.45	0.70
Average						4.25	0.74

4.1.2 Awareness Audit

The second objective of the study was to establish the influence of awareness audit on performance of parastatals in Kenya. The respondents were asked to indicate to what extent awareness audit affected performance of parastatals in Kenya. Results indicated that majority of the respondents 31% agreed that it was to a very great extent, 36% said that it was to a great extent, 23% said it was moderate, while little extent and not all tied at 5%.

Awareness Audit

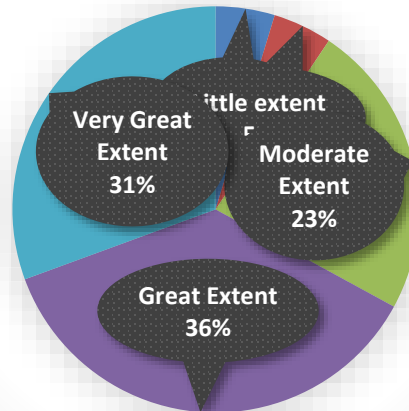


Figure 3: Awareness Audit

The respondents were also asked to comment on statements regarding awareness audit influence on performance of parastatals in Kenya. The respondents were asked to indicate descriptive responses for awareness audit. The result revealed that majority of the respondents (56.6%) indicated that they agreed with the statement that supplier's portal plays a great role in cost reductions. The result further revealed that majority of the respondents (73.3%) indicated that they agreed with the statement that advertising plays a great role in cost reductions. The result revealed that majority of the respondents (69.3%) indicated that they agreed with the statement that providing clarifications system play a great role in cost reductions.

The result further revealed that majority of the respondents (100%) indicated that they agreed with the statement that supplier's portal plays a great role in reducing lead time. The result revealed that majority of the respondents (100%) indicated that they agreed with the statement that advertising plays a great role in reducing lead time. The result further revealed that majority of the respondents (40.7%) indicated that they agreed with the statement that providing clarifications system play a great role in reducing lead time.

The result revealed that majority of the respondents (46.6%) indicated that they agreed with the statement that supplier's portal plays a great role in customer satisfaction. The result further revealed that majority of the respondents (48.7%) indicated that they agreed with the statement that advertising plays a great role in customer satisfaction. The result revealed that majority of the respondents (52.6%) indicated that they agreed with the statement that providing clarifications system plays a great role in customer satisfaction.

The average for the statements on awareness audit was 3.8. The results imply that an organization benefits greatly when awareness audit is embraced to reduce costs, introduce systems designed to address the organization's needs, and work with the organization to streamline performance (Lazear, 2015).

Table 2: Awareness Audit

Statements	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Mean	Std. Deviation
Suppliers portal plays a great role in cost reductions	0.0%	0.0%	43.3%	21.3%	35.3%	3.9	0.9
Advertising plays a great role in cost reductions	0.0%	0.0%	26.7%	36.0%	37.3%	4.1	0.8
Providing clarifications system play a great role in cost reductions	0.0%	0.0%	30.7%	37.3%	32.0%	4.0	0.8
Suppliers portal plays a great role in reducing lead time	0.0%	0.0%	0.0%	45.3%	54.7%	4.6	0.5
Advertising plays a great role in reducing lead time	0.0%	0.0%	0.0%	50.0%	50.0%	4.5	0.5
Providing clarifications system play a great role in reducing lead time	22.7%	18.0%	21.3%	18.7%	19.3%	2.9	1.4
Suppliers portal plays a great role in customer satisfaction	15.3%	18.0%	20.0%	21.3%	25.3%	3.2	1.4
Advertising plays a great role in customer satisfaction	0.0%	22.0%	29.3%	28.7%	20.0%	3.5	1.0
Providing clarifications system plays a great role in customer satisfaction	0.0%	26.0%	21.3%	21.3%	31.3%	3.6	1.2
Average						3.8	0.9

4.1.3 Evaluation Audit

There was also need to establish influence of evaluation audit on performance of parastatals in Kenya as the third objective. The respondents were asked to comment on extent of evaluation audit on performance of 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%.

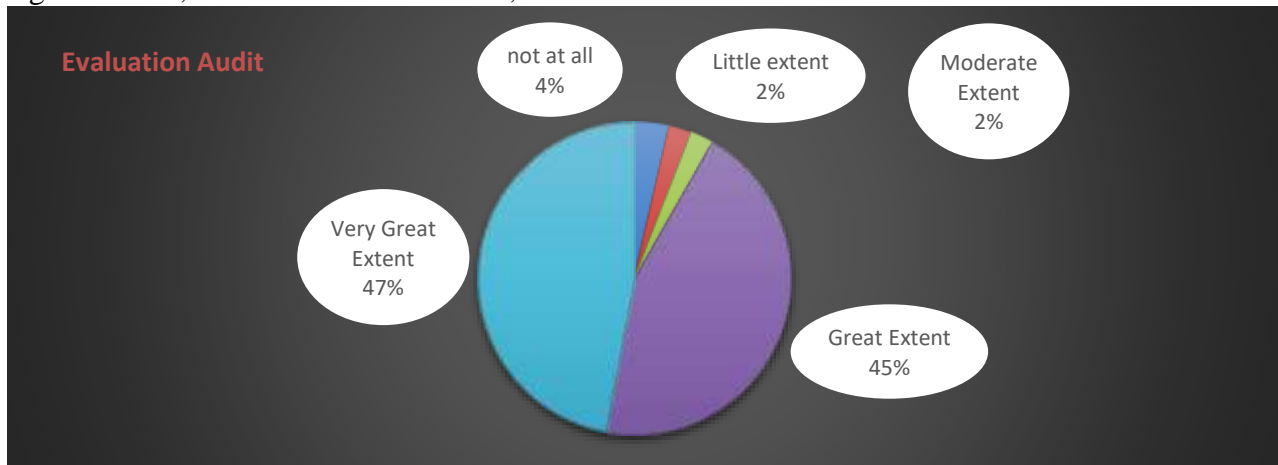


Figure 4: Evaluation Audit

The respondents were asked to indicate their levels of agreement on statements regarding evaluation audit. The result revealed that majority of the respondent (62.7%) agreed with the statement that reception of tenders plays a great role in cost reductions. The result further revealed that majority of the respondent (71.4%) agreed with the statement that technical

evaluation plays a great role in cost reductions. The result revealed that majority of the respondent (62%) agreed with the statement that evaluation of financials play a great role in cost reductions.

The result further revealed that majority of the respondent (63.4%) agreed with the statement that reception of tenders plays a great role in reducing lead time. The result revealed that majority of the respondent (70%) agreed with the statement that technical evaluation plays a great role in reducing lead time. The result further revealed that majority of the respondent (69.4%) agreed with the statement that evaluation of financials play a great role in reducing lead time.

The result revealed that majority of the respondent (43.4%) disagreed with the statement that reception of tenders plays a great role in customer satisfaction. The result further revealed that majority of the respondent (100%) agreed with the statement that technical evaluation plays a great role in customer satisfaction. The result revealed that majority of the respondent (100%) agreed with the statement that evaluation of financials plays a great role in customer satisfaction. The average for the statements on evaluation audit was 3.79. The results imply that an organization benefits greatly when evaluation audit is embraced to reduce costs, to streamline performance (Larry, 2017).

Table 4: Evaluation Audit

Statements	Strongly Disagree	Disagree	Neutral	Agree
Reception of tenders plays a great role in cost reductions	0.00%	0.00%	37.30%	30.70%
Technical evaluation plays a great role in cost reductions	0.00%	0.00%	28.70%	34.70%
Evaluation of financials play a great role in cost reductions	0.00%	0.00%	38.00%	33.30%
Reception of tenders plays a great role in reducing lead time	0.00%	0.00%	36.70%	36.70%
Technical evaluation plays a great role in reducing lead time	0.00%	0.00%	30.00%	42.00%
Evaluation of financials play a great role in reducing lead time	0.00%	0.00%	30.70%	38.70%
Reception of tenders plays a great role in customer satisfaction	20.70%	22.7%	21.30%	20.00%
Technical evaluation plays a great role in customer satisfaction	0.00%	0.00%	0.00%	48.00%
Evaluation of financials plays a great role in customer satisfaction	0.00%	0.00%	0.00%	50.00%
Average				

4.1.4 Contract Management Audit

There was also need to establish the influence of contract management audit on performance of parastatals in Kenya. The respondents were also asked to comment on statements regarding contract management audit on performance of 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 5: Contract Management Audit

The respondents were asked to indicate the descriptive for contract management audit. The result revealed that majority of the respondent (100%) agreed with the statement that change management plays a great role in cost reductions. The result further revealed that majority of the respondent (100%) agreed with the statement that dispute resolution plays a great role in cost reductions. The result revealed that majority of the respondent (95.4%) agreed with the statement that completion and handover play a great role in cost reductions.

The result further revealed that majority of the respondent (96%) agreed with the statement that change management plays a great role in reducing lead time. The result revealed that majority of the respondent (100%) agreed with the statement that dispute resolution plays a great role in reducing lead time. The result further revealed that majority of the respondent (100%) agreed with the statement that completion and handover play a great role in reducing lead time.

The result further revealed that majority of the respondent (95.3%) agreed with the statement that change management plays a great role in customer satisfaction. The result further revealed that majority of the respondent (100%) agreed with the statement that dispute resolution plays a great role in customer satisfaction. The result further revealed that majority of the respondent (100%) agreed with the statement that completion and handover plays a great role in customer satisfaction.

The average for the statements on contract management audit was 3.79. The results imply that an organization benefits greatly when reliable contract management audit is embraced to reduce costs, introduce systems designed to address the organization's needs, and work with the organization to streamline performance (Jolley, 2017).

Table 5: Contract Management Audit

Statements	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Mean	Std. Deviation
Change management plays a great role in cost reductions	0.00%	0.00%	0.00%	54.00%	46.00%	4.11	0.796
Dispute resolution plays a great role in cost reductions	0.00%	0.00%	0.00%	48.70%	51.30%	4.01	0.794
Completion and handover play a great role in cost reductions	0.00%	1.30%	3.30%	40.70%	54.70%	4.55	0.499
Change management plays a great role in reducing lead time	1.30%	1.30%	1.30%	56.70%	39.30%	4.5	0.502
Dispute resolution plays a great role in reducing lead time	0.00%	0.00%	0.00%	47.30%	52.70%	2.94	1.434
Completion and handover play a great role in reducing lead time	0.00%	0.00%	0.00%	50.00%	50.00%	3.23	1.407
Change management plays a great role in customer satisfaction	0.70%	1.30%	2.70%	44.00%	51.30%	3.47	1.047
Dispute resolution plays a great role in customer satisfaction	0.00%	0.00%	0.00%	52.70%	47.30%	3.58	1.183
Completion and handover plays a great role in customer satisfaction	0.00%	0.00%	0.00%	50.70%	49.30%	3.24	1.23
Average						3.79	0.957

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.

Table 6: Summary of Pearson's Correlations

Correlations		Planni ng Audit	Awaren ess Audit	Evaluati on Audit	Contract Managem ent Audit	Performa nce of Parastatal s
Planning Audit	Pearson Correlation	1				
	Sig. (2-tailed)					
Awareness Audit	Pearson Correlation	.598**	1			
	Sig. (2-tailed)	0				
Evaluation Audit	Pearson Correlation	.589**	.469**	1		
	Sig. (2-tailed)	0	0			
Contract Management Audit	Pearson Correlation	.588**	.780**	.532**	1	
	Sig. (2-tailed)	0	0	0		
Performance of Parastatals	Pearson Correlation	.806**	.684**	.680**	.696**	1
	Sig. (2-tailed)	0	0	0	0	

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

The correlation summary shown in Table 6 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 planning audit and performance of parastatals in Kenya, Pearson correlation coefficient computed and tested at 5% significance level. The results indicate that there is a positive relationship ($r=0.806$) between planning audit and performance of parastatals in Kenya. In addition, the researcher found the relationship to be statistically significant at 5% level ($p=0.000$, <0.05).

The correlation analysis to determine the relationship between awareness audit and performance of parastatals in Kenya, Pearson correlation coefficient computed and tested at 5% significance level. The results indicate that there is a positive relationship ($r=0.684$) between awareness audit and performance of parastatals in Kenya. In addition, the researcher found the relationship to be statistically significant at 5% level ($p=0.000$, <0.05).

The correlation analysis to determine the relationship between of evaluation audit on performance of parastatals in Kenya, Pearson correlation coefficient computed and tested at 5% significance level. The results indicate that there is a positive relationship ($r=0.680$) between of evaluation audit and performance of parastatals in Kenya. In addition, the researcher found the relationship to be statistically significant at 5% level ($p=0.000$, <0.05).

The correlation analysis to determine the relationship between contract management audit and performance of parastatals in Kenya, Pearson correlation coefficient computed and tested at 5%

significance level. The results indicate that there is a positive relationship ($r=0.696$) between contract management audit and performance of 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 the performance of parastatals in Kenya, on the basis of the correlation analysis.

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 parastatals in Kenya) which can be predicted from the independent variables (planning audit, awareness audit, evaluation audit and contract management audit).

Table 4.8 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 0.876 indicating that there is perfect relationship between dependent variable and independent variables.

R square value of 0.768 means that 76.8% of the corresponding variation in performance of parastatals in Kenya can be explained or predicted by (planning audit, awareness audit, evaluation audit and contract management audit) 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 ($\beta = 0.761$), $p=0.000 <0.05$).

Table 8: Model Summary

Model	Sum of Squares	df	Mean Square	F	Sig.
1	.876 ^a	.768	.761		.1148

a) Predictors: (constant), Planning Audit, Awareness Audit, Evaluation Audit, Contract Management Audit
b) Dependent Variable: Performance of Parastatals

Table 9: ANOVA

Model	Sum of Squares	df	Mean Square	F	Sig.	
1	Regression	6.329	4	1.582	119.907	.000 ^b
	Residual	1.913	145	0.013		
	Total	8.243	149			

a) Predictors: (constant), Planning Audit, Awareness Audit, Evaluation Audit, Contract Management Audit
b) Dependent Variable: Performance of Parastatals

The significance value is 0.000 which is less than 0.05 thus the model is statistically significant in predicting how planning audit, awareness audit, evaluation audit and contract management audit influence performance of parastatals in Kenya. The F critical at 5% level of significance was 86.80. Since F calculated which can be noted from the ANOVA table above is 119.907 which is greater than the F critical (value=86.80), this shows that the overall model was significant.

The study therefore establishes that; planning audit, awareness audit, evaluation audit and contract management audit influence performance of parastatals in Kenya. These results agree with Gianakis (2016) results which indicated a positive and significant influence of procurement auditing on performance of parastatals.

Table 11: Coefficients of Determination

Model	Unstandardized Coefficients		Standardized Coefficients Beta	t	Sig.
	B	Std. Error			
1 (Constant)	0.817	.229		3.576	.000
Planning Audit	.537	.064	.472	8.439	.000
Awareness Audit	.097	.041	.159	2.391	.002
Contract Management Audit	.080	.032	.168	2.49	.001
Evaluation Audit	.067	.015	.237	4.597	.000

a) Predictors: (constant), Planning Audit, Awareness Audit, Evaluation Audit, Contract Management Audit

b) Dependent Variable: Performance of Parastatals

The research used a multiple regression model

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

Where Y= Performance of Parastatals in Kenya

B₀= Constant

X₁= Planning Audit

X₂= Awareness Audit

X₃= Evaluation Audit

X₄= Contract Management Audit

ε= Error Term at 95% Confidence Level.

The regression equation will be;

$$Y = 0.817 + 0.537X_1 + 0.097X_2 + 0.08X_3 + 0.067X_4$$

The regression equation above has established that taking all factors into account (planning audit, awareness audit, evaluation audit and contract management audit) constant at zero, performance of parastatals in Kenya will be an index of 0.817. The findings presented also shows that taking all other independent variables at zero, a unit increase in planning audit will lead to a 0.537 increase in performance of parastatals in Kenya. The P-value was 0.000 which is less 0.05 and thus the relationship was significant.

The study also found that a unit increase in awareness audit will lead to a 0.097 increase in performance of parastatals in Kenya. The P-value was 0.002 and thus the relationship was significant. In addition, the study found that a unit increase in evaluation audit will lead to a 0.067 increase in the performance of parastatals in Kenya. The P-value was 0.000 and thus the relationship was significant.

Lastly, the study found that a unit increase in contract management audit will lead to a 0.08 increase in the performance of parastatals in Kenya. The P-value was 0.001 and hence the relationship was significant since the p-value was lower than 0.05. The findings of the study show that, planning audit contributed most to the performance of parastatals in Kenya.

5. 0 SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Summary of Findings

5.2.1 Planning Audit

The study sought to assess the influence of planning audit on performance of parastatals in Kenya as the first objective of the study. A majority of respondents were found to highly agree that parastatals had embraced planning audit with regard to their procurement activities. Departmental requisitions auditing was common among parastatals. Correlation and regression results revealed that this was the most important variable that could perhaps be explained by the observation from the findings that planning audit was an important factor in influencing performance of parastatals.

5.2.2 Awareness Audit

The influence of awareness audit on performance of parastatals in Kenya was the second objective of the study. A majority of respondents were found to highly agree that parastatals had embraced awareness audit with regard to their procurement activities. Suppliers portal and advertising were common among parastatals. Correlation and regression results revealed that this was an important variable that could perhaps be explained by the observation from the findings that awareness audit was an important factor in influencing performance of parastatals.

5.2.3 Evaluation Audit

The study endeared to assess influence of evaluation of received tenders auditing on performance of parastatals in Kenya as the third objective of the study. A majority of respondents were found to highly agree that parastatals had embraced evaluation auditing with regard to their procurement activities. Technical evaluation and evaluation of financials were common among parastatals. Correlation and regression results revealed that this was an important variable that could perhaps be explained by the observation from the findings that evaluation auditing was an important factor influencing performance of parastatals.

5.2.4 Contract Management Audit

The influence of contract management audit on performance of parastatals in Kenya was the last objective of the study. A majority of respondents were found to highly agree that parastatals had embraced contract management audit with regard to its procurement activities. Dispute

resolution and change management were common among parastatals. Correlation and regression results revealed that this is an important variable that could perhaps be explained by the observation from the findings that contract management audit was an important factor influencing performance of parastatals.

5.2.5 Performance of Parastatals

The study endeared to determine influence of procurement auditing on performance of parastatals in Kenya. The regression results revealed that public procurement audit practices identified in the study, that is, planning audit, awareness audit, evaluation auditing and contract management audit combined could explain approximately 76.8% of the variations in the performance of parastatals in Kenya. The other 23.2% may be attributed to other strategies not explained by the model or the variables.

From inferential statistics, a positive correlation is seen between each determinant variable and performance of parastatals. The strongest correlation was established between planning audit and performance of parastatals. All the independent variables were found to have a statistically significant association with the dependent variable at ninety-five percent level of confidence

5.2 Conclusion

Based on the study findings, the study concludes that performance of parastatals can be improved by planning audit, awareness audit, evaluation auditing and contract management audit. First, in regard to planning audit, the regression coefficients of the study show that it has a significant influence on performance of parastatals

5.3 Recommendations

Finally, the study recommended that public institutions should embrace public procurement audit 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.

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