



THE EFFECTS OF AUDITING DURATION AND ENFORCEMENT MECHANISMS FOR PROCUREMENT PERFORMANCE IN TANZANIA

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Abstract:

This study aimed to examine the effects of auditing duration and the enforcement mechanisms on procurement performance in Tanzania. The study adopted a cross-sectional research design. Both probability and non-probability sampling techniques were employed to obtain a sample size of 132 respondents drawn from four (4) Local Government Authorities (LGAs). Data were collected through questionnaires, supplemented by a documentary review and interviews. Data were analyzed qualitatively using content analysis and quantitatively using descriptive and multiple regression analysis. Findings show that the time allowed to audited entities to respond to audit queries was not enough, the enforcement mechanism is inefficient in reporting procurement misconduct, and infrequent monitoring through auditing by the Public Procurement Regulatory Authority (PPRA) to public entities. This study is limited in terms of scope as it covered four (4) LGAs, thus, facing the challenge of findings be used to generalize to all 184 LGAs in Tanzania. Auditors should be given enough time to audit the assigned Procuring entities, while auditees should be given enough time to respond to queries raised by auditors. On the other hand, enforcement organs should make sure that all audit recommendations are implemented as they were recommended by auditors timely.

Keywords:

Audit, credibility, independent, procurement, enforcement

1. Introduction

1.1 Background of the study

Public procurement audits add value by analyzing and reporting what has happened after the event, being forward-looking, identifying lessons to be learned, and disseminating good practice (Maama et al., 2022). They have a direct and positive influence on the way organizations and people in the public service discharge their responsibilities.

Public sector auditing has a prominent role in state finance management by promoting transparency and accountability of government for its oversight of public money (Kelola, Negara, & Wibowo, 2019; Hay & Cordery, 2018). It influences the best use of public funds towards the provision of services to the public (Wan Abdullah et al., 2022). Moreover, procurement audit helps to detect loopholes and areas of the procurement process where non-compliance with established standards and mismanagement of funds are critical (Kelola et al., 2019). It aims to ensure that procuring entities comply with legislative and regulatory provisions governing public procurement (Bedasso, 2020), and make available procurement information to relevant authorities and the general public on time to enhance accountability (Hay & Cordery, 2018).

There are several reasons for carrying out audits on public procurement; as it estimated that public procurement spent 50% to 80% in most developing countries, associated risks, its strategic function in keeping away from misuse of public funds, and can be regarded as a critical indicator of the effectiveness of a government because it is a central aspect of public service delivery (World Bank 2017; Fourie & Malan, 2020).

Moreover, information provided by the audit is important, but when a certain audited program is already finished and found to be ineffective, the audit does not change the condition that the program does not create value for the public. However, it provides recommendations for government and procuring entities so that the same problems do

not recur in the future (Pierre & Fine-Licht 2019). Furthermore, auditors may also uncover fraud and irregularities related to the project, if any, and report them to law enforcement officials (Wibowo, Ahmad, Bin, & Malek, 2016). Furthermore, Najib and Suryandari (2017) revealed that time pressure is an obstacle that causes auditors to reduce some of the tests that should be done, and collect less evidence than he/she should.

In Tanzania it has established that public procurement is one of the government business activities that are most vulnerable to petty, grand, systematic as well as systemic corruption. According to (CAG, 2020; PPRA, 2020) billions of taxpayers' and donor funds and money get lost every year due to waste, fraud, and corruption in the public procurement system as well as unethical and non-compliant procurement practices crop in the public procurement system. Noncompliance and misappropriation of public funds necessitated the government to establish oversight and monitoring bodies to ensure that procurement procedures and regulations are followed (Kengen et al., 2020). Therefore this study focused on examining the role of public procurement audit in enhancing procurement performance in local government authorities by examining; audit duration, and influence of enforcement mechanism using a case study of selected Local government authorities in Arusha and Dar es Salaam regions.

1.2 Problem Statement

The increasing challenges of procurement activities in different procuring entities have led to the increasing need for procurement audits (Mustafa, 2018). Public Procurement Regulatory Authority (PPRA), Controller and Auditor General (CAG), internal auditors, and other auditing institutions; audit, recommend, and report the procurement weaknesses of public entities on the use of public funds in the delivery of goods, execution of work, and provision of services to the public. Despite the frequent auditing performed from time to time, the level of compliance with the public procurement acts and their regulations is not impressive (Matto, 2017; Baha, 2020).

Evidence from the PPRA Annual Performance Report (PPRA, 2020) revealed that compliance with procurement laws, along with regulations, was still a major problem, particularly in LGAs. For example, PPRA report of FY 2014/15, indicated that out of seventeen (17) procuring entities with poor performance; nine (9) (53%) of them were from LGAs, out of ten (10), PEs with poor performance for FY 2016/2017 seven (7) (70%) PEs were from LGA, and out of five (5) PEs with poor performance for the FY 2020/21, three (3) (60%) PEs were from LGAs.

Additionally, the researcher found out that previous scholars (For example, Yahaya et al., 2020; Baha, 2020, Chikwere et al., 2019; Matto, 2021) their studies revealed non-compliance and impacts on unsatisfactory performance of public procurement in public entities. Though, (Maama, et al, 2022; Kioko and Were 2018; Sallwa, 2022;) depicted continues unsatisfactory procurement performance of public entities but they did not discuss the causes for the situation. Other scholars, (Widt & Thorogood, 2020; Akther, 2021; Funnell et al., 2018) identified attributes of credible auditors, without describing the effect of auditor's credibility on procurement performance. Likewise, the researchers noticed that there is little known about the effect of time allocated for auditing on the procurement performance of audited entities.

Therefore, the researchers were motivated to carry out this study to assess the role of public procurement audit in enhancing procurement performance in local government authorities to identify and discuss the sources for continuous unsatisfactory performance of procurement performance in LGAs despite of regular audits, by examining; audit duration, and efficiency of enforcement mechanisms using a case study of four (4) selected Local government authorities in Arusha and Dar es salaam regions.

2. Literature Review

This part will cover a theoretical literature review, where theories that guided this study will be covered while the second part will cover empirical literature review where scholar findings from journal articles will be covered.

2.1 Theoretical Review

In this study, the researchers used institutional theory and principal-agent theory.

2.1.1 Institutional Theory

The institutional theory raises concern over the need to focus on institutional factors which are within an institution and the interaction of which have an effect on the compliance and overall creation of value for money in the public procurement process (Aisha, 2021). According to Scott (2013) three pillars of institutions are regulatory (policy),

normative, and cultural cognitive. The regulatory (policy) pillar emphasizes the use of rules, laws and sanctions as enforcement mechanisms with an emphasis on compliance. The regulatory component is a central pillar of the institutional theory which comprises legislations, regulations, circulars, procedures, and rules that govern the public procurement auditing process which is also a basis for the assessment and reporting of procurement performance of audited public entities. The normative pillar focuses on the norms, values and ethical standards. These factors monitor and influence the credibility of both internal and external auditors while assessing, and reporting the outcome of auditing. Norms, values, and ethical standards guide auditors' credibility while performing their tasks to ensure professionalism, objectivity, and fact-based presentations/reports. Additionally, cultural cognition influences the behavior, responses, and belief of procuring entities staff which also have an impact on compliance and value for money achievement of procurements undertaken by the organization.

Gudono (2017) revealed the three pillars of isomorphism are; coercive isomorphism (external pressure), pressure by external parties like the competent authorities, governing bodies, and stakeholders on public entities to comply with procurement laws, standards procedures, circulars, and regulations; mimetic isomorphism (internal pressure), the organizational commitment will abide by rules and regulations to improve procurement performance through implementation of given audit recommendations; and normative isomorphism (professional pressure), emphasizing that auditors will develop their abilities and competencies according to their governed professional bodies to meet required professional standard and qualification.

2.1.2 Principal Agency Theory

This theory has been adopted in this study because "Institutional theory" does not show the grounds for the existent of the relationship between the auditors, government, and audited entities. This theory defines the relationship which exists when one party (called the Principal) delegates work to another party (called the agent). The agency relationship appears whenever one of the parties must rely on the acts of the other (Chrisidu-Budnik & Przedańska, 2017). The theory suggests that, as a result of information asymmetries and self-interest, principals do not trust their agents and will put in place mechanisms to align their interests with those of the agents. The government is viewed as a principal that delegate's its authority to the established procuring entities (viewed as the agents) to undertake public procurements as per the provisions of the Act, where the external and internal audit are used as the mechanism to monitor and report how agents spend principal resources in providing services, delivering goods and executing works. Furthermore, the principal (government) relies on the auditor to provide an objective and professional evaluation of the compliance of the agent, and report whether the agent uses the resources per the principal's wishes (Bedasso, 2020).

2.2 Empirical Literature Review

Rosadi and Barus (2022) investigated the effect of time budget pressure and auditor's competency on audit quality in Indonesia. The study revealed that time budget pressure has a significant effect on audit quality and its direction is positive, implying that the tighter the budget time pressure, the more auditors will feel more motivated and more eager in completing audit tasks on time. The finding controversy Najib and Suryandari (2017) who revealed that time pressure is an obstacle that causes auditors to reduce some of the tests that should be done, and collect less evidence than he/she should. Also, the study revealed that the auditor's capability/skills have a significant effect on the quality of audits and its direction is positive.

Matto (2017) wrote a research paper titled Analysis of factors contributing to poor performance of procurement functions in local government authorities. The study, Depicts serious weaknesses in the management of procurement functions in LGA's in which he provides that; among of factors contributing to the poor performance of procurement functions are: inadequate internal control with regard to the accounting officer, tender board, internal audit unit, and budget approving authority. Other weaknesses depicted by the study were: Lack of capacity of the staff to execute procurement functions, for example, low level of qualifications among the procurement officers with the majority having certificates and diploma academic qualifications with few degree holders, little understanding of legal requirements about public procurement among the procurement officers, tender board members and user departments and procurement management units are not staffed to an appropriate level as required in section 37(2) PPA 2011.

Matto (2021) investigated why compliance and value for money audit results have shown that procuring entities in Tanzania failed to balance compliance with value for money. The results of this study revealed that compliance indicators are significantly related to value for money. It identified that most of the procuring entities in Tanzania achieve value for money without satisfactory compliance. Further, the study revealed that the mismatch between compliance and value for money in Tanzania public procurement is caused by the audit measurement tools and government policy.

Masoud (2022) examined the effects of conflict of interest on procurement function performance in the state corporation of Tanzania. The study revealed that disciplinary action against individuals who breach the code of ethics and professional conduct does not exist, and lack of accountability accounts for approximately 29.2 percent of the variation in procurement function performance.

3. Materials and Methods

3.1 Research Design

The study adopted a cross-sectional survey research design. This design permits the collection of data at a particular point in time (Creswell, 2017). Further, this design was relevant for collecting information for independent and dependent variables using questionnaires, documentary reviews, and interview guides. Additionally, this design allows respondents to describe their views and experiences, which the researchers used to conclude the results obtained from sampled respondents

3.2 Sample and Sample Size

Researchers used a sample of 132 respondents from the targeted population of 240 drawn from four LGAs, namely Kinondoni Municipal Council, Dar es Salaam City Council, Meru District Council, and Arusha District Council. Typically, the sample elements were selected because they represented the population of interest. The researchers used the Slovene's formula to obtain the required sample.

3.3 Types of data

Researchers used two approaches in data collection, which were primary data sources and secondary data sources. The primary data were obtained through self-administered structured questionnaires, which were sent to individual respondents. Face-to-face interviews and Telephone calls were also used to collect data with selected respondents. Secondary data were collected from documents that relate to the past procurement performance of the PEs, follow-ups and action taken on audit findings, and implementation of recommendations.

3.4 Data analysis

Data were analyzed both qualitatively and quantitatively. Qualitative data were analyzed through contents analysis while quantitative data were analyzed using descriptive analysis and inferential analysis. Descriptive analysis was made through the use of frequency, percentage, mean score, and standard deviation while inferential analysis was made through multiple linear regression analysis to test the relationship and the influence of independent variables on the dependent variable

4. Results and Discussions

4.1 Reliability of the data

Researchers performed Cronbach's Alpha to attest whether the research instrument truly measured what was intended to measure. Table 4.1 summarizes the result.

Table 4.1 Reliability statistics

Variable	Cronbach's alpha
Auditing Duration	0.717
Efficiency of enforcement mechanisms	0.740

Procurement performance	0.875
Average	0.777

Source: Field data (2023)

Test result shows that audit duration had the reliability of ($\alpha=0.717$), Efficiency of enforcement mechanisms ($\alpha=0.74$), and the performance of procurement in LGAs had a reliability of $\alpha=0.875$. The results justify that the research instrument was sufficiently reliable because the alpha value for each scale exceeded the threshold of ($\alpha>0.7$) and above.

4.2 Kaiser-Meyer-Olkin (KMO) and Bartlett's Test of Sphericity

In this study, the researcher performed Kaiser-Meyer-Olkin (KMO) to measure sampling adequacy, and Bartlett's test of sphericity, to assess the significance of the dataset before starting with confirmatory factor analysis that aimed to remove low-loading items before running correlation and regression coefficients. The result is shown in Table 4.2.

Table 4.2: Kaiser-Meyer-Olkin (KMO) and Bartlett's Test of Sphericity

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.851
Bartlett's Test of Sphericity	Approx. Chi-Square	5730.220
	Df	1275
	Sig.	.000

According to Kaiser-Meyer sampling, Olkin's adequacy value was 0.851, which exceeded the given threshold of 0.5, and Bartlett's test of sphericity was statistically significant ($p=.000$), indicating that the variables in this study are factorable.

4.3 Descriptive analysis of auditing duration

The first variable of this study was the auditing duration. Under this variable, the researchers assessed the time allocated/spent for auditing, particularly by external auditors in undertaking auditing tasks. The researchers aimed to determine how the time factor affects the performance of audited entities, particularly by addressing questions on the timely submission of requested documents, audit sample size, and provision of management responses/feedback.

4.3.1 Timely submission of requested documents

Auditing results are highly influenced by the availability of records. These records are used as evidence to verify whether the process was handled as per the requirements of law, regulation, policy, and issued standards and guidelines. The absence of requested documents justifies that a particular requirement was not performed, hence no conformance. Timely submission of audit records to auditors facilitates the effective review and timely finalization of auditing work. Researchers asked respondents several questions that aimed at assessing the extent to which the time allocated for audits, particularly by external auditors, affects staff's ability to submit requested procurement records. Table 4.3 provides the study results from the field.

Table 4.3 Descriptive analysis of timely submission of documents

	N	Mean	Std. Deviation
Audit duration is sufficient for the organization to submit documents	132	3.87	1.175
External auditors requested additional documents	132	1.83	.982
Audit duration is sufficient for Org. to provide clarifications	132	3.93	1.043

Auditing duration affects PE performance	132	2.39	1.117
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Source; *Researcher's Own Construct, (2023)*

Results of Table 4.3 above show that respondents disagreed that auditing duration is enough for the organization to make available all requested procurement audit records with a (Mean = 3.87, Std.dv = 1.175). Respondents agreed that auditors request additions or missing procurement records with a mean (Mean = 1.83, Std.dv = 0.982), Also respondents disagreed that time allocated for auditing is enough for organization staff to provide clarification requested by external auditors and collection of additional supporting pieces of evidence during their fieldwork with a (Mean = 3.93, Std.dv = 1.043). Further, respondents agreed that the time spent by auditors to undertake procurement audit duties has an impact on audit results of the audited entity, with a (Mean = 2.39, Std.dv = 1.117). This implies that some auditing queries are concluded because of a time limit allowed to entities to track, collect, and submit all requested documents. These situations prevailed because in most public entities, particularly LGAs, there are no systems for the management of procurement records, which makes it difficult and time-consuming to trace those records. The finding is supported by AL-Qatamin (2020), who postulates that time pressure influences premature sign-offs of the audit process. Time limits create a tendency for auditors to partially cover some aspects of audit coverage/scope, and not give auditees enough time to collect additional documents. Also, inadequate time may frustrate the auditor and affect the audit results.

4.3.2 Audit sample size

The audit sample size is influenced by the number of days allowed to auditors for field work, the value and number of transactions performed by audited entities, available human resources, funds, and the deadline for preparation and submission of audit reports to competent authorities. The researchers collected respondents' opinions on the audit sample size by asking them some questions about the effect of audit sample size on the performance of their organization and whether the sample size taken by auditors is enough or appropriate for the representation of the overall results of their procurement undertaking in a particular financial year. Table 4.4 provides the study results from the field.

Table 4.4 Descriptive analysis of audit sample size

	N	Mean	Std. Deviation
Audits constitute all procurement types	132	1.63	.823
Auditor covers the appropriate number of implemented tenders	132	3.38	1.100
External auditors cover the adequate tender value	132	3.93	.959

Source: Field data (2023)

Results from Table 4.4 depict that respondents strongly agreed that procurement audits cover all types of procurements (Works, goods, consultancy, and non-consultancy services) with a mean (Mean = 1.63, Std.dv = 0.823). However, they remained neutral that the procurement audit sample size in terms of number is sufficient and disagreed that sample size by value is adequate with a (Mean = 3.38, Std.dv = 1.100), and (Mean = 3.93, Std.dv = 0.959) respectively. This implies that respondents are uncertain whether the sample size taken by the external auditor covers the appropriate value of procurements undertaken by audited entities.

4.3.3 Management responses

Management responses are formal mechanisms that help to ensure that audit findings contribute to organizational effectiveness, learning, and accountability. Auditors are required to review management responses and decide whether the findings are dropped or retained. The researchers asked respondents several questions to determine whether the time provided to audited entities to respond to audits queries issued by auditors is adequate or not and whether their feedback is appropriately considered/ incorporated into final reports. Table 4.4 provides the study results from the field.

Table 4.4 Descriptive analysis of management responses/feedback

	N	Mean	Std. Deviation
Management responses are timely submitted	132	3.81	.982
Management responses are incorporated in the final audit report	132	2.36	1.036
The time given to PE to submit the Management responses is enough	132	4.19	.934

Source: Field data (2023)

Results of Table 4.4 above show that respondents disagreed that the time given by external auditors to audited entities to submit management responses to raised audit findings is enough, with a (Mean = 4.19, Std.dv = 0.934). Likewise, they disagreed that Management responses to auditing findings are submitted to auditing institutions (eg, PPRA) within a time given with a (Mean = 3.81, Std.dv = 0.982). This implies that there is a delay by audited entities in the submission of management responses to auditing institutions. Despite inadequate time given to audited entities to submit management responses and delays in submission of management responses, the respondents agreed that where management responses reach the auditing institution before the finalization of the audit report, they are incorporated in the final audit report, with a Mean = 2.36, Std.dv = 1.036). An interview conducted with respondents revealed that:

Sometimes, organizations fail to communicate management responses to audit findings to auditors on time because the given time is not sufficient to respond to all queries. According to them, the time allowed by PPRA to submit management responses is 14 days. Likewise, to audits performed by CAG time allowed is up to twenty-one (21) days, counting from the time the auditor informed the client about the observed weakness.

Inadequate time makes it difficult for organizations to submit their management responses within the time given.

4.4 Descriptive analysis of the efficiency of enforcement mechanisms

This was the second variable of this study. The researchers examined the influence of the enforcement mechanisms, which include institutions like Prevention and Combating Corruption Bureau (PCCB), Department of Criminal Investigation (DCI), Local Authorities Accounts Committee (LAAC), Parastatal Accounts Committee (PAC), competent authorities, and professional bodies like Procurement and Supplies Professionals and Technician Board (PSPTB), National Board of Accountants and Auditors (NBAA), Engineers Registration Board (ERB), and Contractors Registration Board (CRB) in taking action against organizations and individuals implicated in procurement malpractices. The researchers in this variable focused on two areas, which are follow-ups and accountability. Respondents were asked different questions concerning actions taken by the government and enforcement organs on auditing weaknesses raised by auditors. Analysis and interpretation of respondents' opinions are detailed below.

4.4.1 Follow-ups by government bodies

The researchers assessed the efficiency of enforcement mechanisms through government organs on follow-ups of audit weaknesses identified by auditors and their respective recommendations. Individuals were asked questions to provide their opinions on efforts taken by government enforcement organs in dealing with raised audit queries. Table 4.5 provides the study results from the field.

Table 4.5 Follow-ups by government bodies

	N	Mean	Std. Deviation
Individuals implicated in procurement wrongdoing are questioned by respective bodies.	132	3.94	1.144

Government institutions make follows up on Identified audit weaknesses	132	4.01	.977
Government supports PE to overcome observed weakness	132	2.26	1.221

Source: Field data (2023)

The result from Table 4.5 shows that there are inadequate follow-ups by the government and its enforcement organs on issued audit recommendations. Respondents disagreed that enforcement organs are making follow-ups of audit results and their recommendations (Mean = 4.01, Std.dv = 0.977). This finding is supported by Sikika (2018), which provides that PAC and LAAC have historically poor records of implementation of audit recommendations by the executive, as evidenced in the CAG central government and local government reports. Further, respondents disagreed that enforcement organs are questioning all individuals implicated in procurement wrongdoing (Mean = 3.94, Std.dv = 1.144). Review of the previous study revealed that when procurement practices are put in place and moderated by Government interventions, then there would be procurement performance (Kiganane et al., 2021). However, respondents agreed that the government supports PEs to overcome observed procurement weaknesses on the matters related to: inadequate technical staff, dispute resolution, and timely funds disbursement with a (Mean = 2.26, Std.dv = 1.221).

4.4.2 Accountability

The researchers collected respondents' opinions on whether officers involved in procurement misconduct are held accountable, and whether accountability to individuals/officers helps improve compliance and reduce procurement malpractices. Table 4.6 provides the study results from the field.

Table 4.6 Descriptive analysis of accountability

	N	Mean	Std. Deviation
Government organs take action against staff implicated in procurement wrongdoing	132	3.00	1.290
Accountability of individuals minimizes negligence in procurements	132	2.42	1.119
Govt authorities communicate their decisions on procurement weaknesses	132	4.02	1.146

Source: Field data (2023)

Results from Table 4.6 show that respondents agreed to hold individuals liable for their wrongdoing in procurement, minimize negligence in the procurement process with a (Mean = 2.42, Std.dv = 1.095). Also, respondents agreed that enforcement mechanisms are not adequately held to officers involved in procurement malpractices, with (Mean = 2.27, Std.dv = 1.071). In addition, respondents disagreed that government authorities communicate publicly their observations and decisions on matters related to misconduct raised by auditors, with a Mean = 4.02, Std.dv = 1.146). According to Kristensen et al., (2021) lack of adequate accountability has a high tendency to undermine governments' efforts to improve the standard of living. Lack of accountability undermines auditing efforts to ensure improved compliance and procurement performance (Economy, Efficiency, effectiveness) of public procurements undertaking.

The researchers visited the websites of some of the enforcement's bodies (PCCB and PSPTB) to examine whether there are reports and feedback on decisions or observations by them concerning issues related to procurements misconducts identified by auditing bodies like PPRA and CAG. The review did not find reports presenting progress or decisions made on procurement related weaknesses presented on internal audits reports, CAG reports, or PPRA on matters related to procurements.

In developing countries like Tanzania where the governments spend between 50% to 80% of its collections/funds on procurement matters (Fourie & Malan, 2020), it is important for enforcement mechanisms like PCCB, DCI, and

professional bodies to have a forum and reports on their website on the decision they made on procurement findings and recommendations issued by CAG, PPRA reports internal auditor general and other auditing institutions. It should be noted that CAG and PPRA each year conduct audits and present their reports to the public. Among of weaknesses identified are corruption issues, negligence, and other criminal issues, which are supposed to be addressed by organizations like PCCB and professional bodies like PSPTB.

4.6 Regression analysis

Regression analysis is a statistical method for estimating the relationship between a dependent variable and two or more independent (or predictor) variables. It is an attempt to explain the variation in a dependent variable using the variation in independent variables. Based on the regression model assumptions, the researchers used regression analysis of the independent variables to determine the extent to which they influence the dependent variable. The analysis of regression analysis contained Model summary (Table 4.8), Analysis of Variance (ANOVA, Table 4.9), and Regression coefficient (Table 4.10) as shown below.

Table 4.8 Model Summary

R	R Square	Adjusted R Square	Std. Error of the Estimate
.840 ^a	.706	.697	.42300

a. Predictors: (Constant), Effectiveness of enforcement organs, Audit duration,

Table 4.8 explain how much of the variance in the dependent variable (performance of procurement) is explained by the independent variables (Audit duration, and efficiency of enforcement mechanisms influencing procurement performance). From the table, the value of R² shows an explanatory power of the independent variable of 0.706, illustrating that, the model explains 70.6% of the variance in the performance of procurement and leaves 29.4% unexplained. Also, result shows that independent variables are a good predictor of the dependent variable because the value of R² is greater than 0.5.

Table 4.9 Analysis of Variance (ANOVA)

	Sum of Squares	df	Mean Square	F	Sig.
Regression	54.666	4	13.667	76.379	.000 ^b
Residual	22.724	127	.179		
Total	77.391	131			

a. Dependent Variable: Performance of PE

b. Predictors: (Constant), Effectiveness of enforcement mechanisms, Audit duration

Source: Field data (2023)

Table 4.9 presents the report of the general significance of the model. The intended value in the ANOVA table was the P-value, as it indicates whether the model is significant or not. For the model to be significant, the P-value must be less than 0.05 (Saunders et al, 2019). As p is less than 0.05, the model is significant by the values of (p = 0.000) and (F=76.379). Thus, portrays that a combination of the independent variables (enforcement mechanisms and Audit duration) significantly predicts, and is at best fit to model to predict the dependent variable (performance of procurement), and thus the model can be generalized in public entities, particularly in LGAs.

Further, the researchers run a regression coefficient analysis to determine the change in the amount of the dependent variable over one unit of the independent variables, whereby the estimated coefficient (standardized coefficient) showed by beta value indicates how much the score varies due to variation of any independent variable while leaving other independent variables constant. The coefficient result is shown in Table 4.10.

Table 4.10 Regression Coefficients^a

	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	-.996	.219		-4.548	.000
Audit duration	.130	.058	.124	2.249	.026
Effectiveness of enforcement mechanisms	.179	.085	.154	2.121	.036

a. Dependent Variable: Performance of PEs
Source; *Field data, (2023)*

Table 4.10 indicates the beta coefficients that present the contributions of each variable to the model. The “t” and “p” values showed the influence of the independent variable on the dependent variable. Beta sign of all the independent variables shows the positive effect of the predicting dependent variable. That means efforts to improve independent variables lead to an increase in the performance of procurement. Based on the unstandardized coefficient from the analysis, the efficiency of enforcement mechanisms makes the strongest unique contribution in explaining the dependent variable at the Beta value of 0.179, followed by audit duration with a contribution of 0.130. Furthermore, the coefficient results of all predictors are positively related to the dependent variable, and based on the statistical significance of the independent variable over the dependent variable at a 5% level of significance, all of the independent variables are significantly affecting the performance of audited public entities ($P < 0.05$). Thus, the model for predicting the performance of procurement becomes:

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \epsilon$$

$$\text{Then } Y = -0.996 + 0.179X_1 + 0.130X_2 + 0.219$$

Where, Y= Performance of procurement, β_0 = Constant, (β_1, β_2) = Regression coefficient of independent variables, ϵ = Error term, X_1 = Efficiency of enforcement mechanisms, X_2 = Audit duration.

5. Conclusion and Policy Implications

5.1 Conclusion

Based on study findings, the researchers concluded that there is a significant positive relationship between audit duration and the performance of the procurement function. Therefore, to guarantee the performance of procurement functions, it is important to ensure that the time allowed for auditors to undertake audits is sufficient, as it affects the performance of audited PEs, the quality of the audit report, and the ability of the audited organization to prepare and submit management responses. Additionally, the study concludes that there is inefficiency in enforcement mechanisms in taking action on observed audit weaknesses.

5.2 Policy Implication

Based on the revealed observation, the researchers made recommendations to Public procuring entities, enforcement organs, Public procurement regulatory authorities, and the government as follows;

5.2.1 To Public Procuring Entities

Based on the weaknesses observed, the researchers recommend that the procuring entities take appropriate disciplinary action against staff involved in procurement malpractices where necessary, to ensure staff involved in procurement functions are motivated, and to encourage teamwork on all procurements undertaken.

5.2.2 To Public Procurement Regulatory Authority

PPRA to ensure that all organizations submits quarter internal audits reports as per the requirements of section 48 (2) of PPA, CAP 410 (R.E. 2022), to ensure that all audited entities implement and submit implementation status of issued audits recommendations, to provide training to the internal auditors on how to undertake procurement audit and how to report audits queries. Furthermore, to ensure all of its auditors have a common understanding of the interpretation of procurement law, regulation, guidelines, and standard documents, to avoid any bias. Not only that, but also to increase the number of audited entities and ensure public entities are audited regularly.

5.2.3 To enforcement organs

Based on the finding, there is inefficient of enforcement organs such as PSPTB, PCCB, LAAC, CRB, ERB in their mechanisms for follow-ups and taking action on reported procurement misconducts, therefore the researcher recommends to them; To make timely follow-ups of reported procurement misconducts and issued audits recommendations which are in their mandate, to provide public feedback/reports on follow-ups and decisions they made in respects of reported procurements allegation made by auditing institutions.

5.2.4 To the government

The government to take appropriate actions like demotion, penalty, and termination of appointments to officers implicated in procurement malpractices. Likewise, disciplinary action should be taken against officers of enforcement organs who failed to make follow-ups and take action against institutions or individuals reported to involve in procurement misconduct. Also, the government should enhance the independence of auditors, particularly internal auditors by changing their reporting mechanism. The good mechanism is for internal auditors to report direct to the audit committee, or budget approving authority and not to accounting officers. Also, the government should ensure the timely release of funds to support training programs to staff, ensure motivation and allowances to staff involved in procurement, and availability of technical and supporting staff to handle procurement functions accordingly.

5.3 Limitations of the Study

The researcher adopted a cross-section survey research design which covered only four (4) LGAs and a small sample size of 132 respondents; thus, facing the challenge of findings be used to generalize not only to all public entities which is more than 860 in number but also to all LGAs which is about 185.

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