



Audit Committees' Effectiveness in Tanzania: The Case of Selected Public Authorities in Tanzania

Kelvin Clarence Millinga^{a*} and Alexis Naho^b

^a Department of Business Studies, Faculty of Commerce, Jordan University College (JUCO),
P.O.Box-1878, Morogoro, Tanzania.

^b Department of Economics, Mathematics and Statistics, Jordan University College (JUCO),
P.O.Box-1878, Morogoro, Tanzania.

Authors' contributions

This work was carried out in collaboration between both authors. Both authors read and approved the final manuscript.

Article Information

DOI: 10.9734/AJEBA/2022/v22i2230719

Open Peer Review History:

This journal follows the Advanced Open Peer Review policy. Identity of the Reviewers, Editor(s) and additional Reviewers, peer review comments, different versions of the manuscript, comments of the editors, etc are available here: <https://www.sdiarticle5.com/review-history/91193>

Original Research Article

Received 21 June 2022
Accepted 28 August 2022
Published 30 August 2022

ABSTRACT

Audit committees are important parts of an entity's governance structure which play a significant role in assisting entities in achieving their planned objectives. This study aimed at assessing the factors affecting audit committees' effectiveness in the selected public authorities in Tanzania specifically Morogoro region. The study used survey research design based on the mixed research approach i.e., both qualitative and quantitative research approaches were used. A multistage sampling technique were used to select 120 representative respondents for this study. Both primary and secondary data were collected using questionnaires and documentary review respectively. The Logit regression model was used in this study in examining the factors affecting the auditing committees (AC) effectiveness. Also, the maximum likelihood method using SPSS 25 was used to estimate the coefficients of the specified logistic regression model. The study result from logit regression analysis revealed that independence and number of meetings of AC members were statistically significant and positively related to effectiveness of AC while age and gender of the audit committee members were significant but negatively related. Moreover, education level, size of AC and expertise were not statistically significant but positively related to dependent variable. Therefore, for the aim of attaining effective performance of the audit committee in the stated public bodies in Tanzania, it is very vital to take into account the contributions of the determining factors.

*Corresponding author: E-mail: millingakelvin33@gmail.com;

Keywords: Audit; committee; effectiveness.

1. INTRODUCTION

The financial collapse of big companies in the world led to the demand for strong corporate governance in the private as well as public sector entities [1]. This caused the crash-down of investors and stakeholders' confidence in the stock markets [2,3]. As the result, the call for strong audit committees and internal auditors emerged. In response to the requirement of corporate governance, stakeholders needed the establishment of strong and effective functioning internal audit departments and audit committees much attention has been going to the functions of internal auditors and audit committees [4]. As the responses to the necessities of corporate governance, various countries including Tanzania, have introduced audit committees, internal audit units and Boards of directors [5].

The pioneers for introducing internal audit unit and audit committees were developed countries followed by developing countries. In response to this, United Republic of Tanzania amended its Public Finance Act 2004. Following the amendments of the Public Finance Act 2004 in 2010, the Internal Auditor General Department (IAGD) was introduced. Effectively from July 2011, the IAGD was established. One of the major functions of the IAGD is to evaluate the effectiveness of audit committees and enhance its capacity in the Public Bodies, Local Government Authorities, Ministries, Departments, Regional Secretariats, Executive Agencies and Donor Funded Development Projects. The establishment of audit committees in the public institutions in Tanzania is in line with the requirements of Regulation Number 30 of the Public Finance Regulations of 2001 and Order number 12 of the Local Authority Financial Memorandum of 2009. These regulations provide the composition, establishment and roles of the audit committees.

Audit committees are important parts of an entity's governance structure which play a significant role in assisting entities in achieving their planned objectives. It is one of the primary parts in corporate governance, and in improving performance of an organization [6,7]. Despite the best intended roles played by audit committees in the public sector entities, inadequate performance of audit committees exists in the Tanzanian public institutions (CAG reports, 2020). According to the stated report, inadequate

performance is evidenced by absence of audit committees' meetings at least once per quarter, non-review of the financial statements, risk management policy and anti-fraud prevention and detection policy. Also, most of the members do not have financial skills and non-preparation of annual reports on their functions. Studies recommend that, still audit committees can improve their functions and performance in major areas such as financial reporting, risk management, supporting external and internal auditors, corporate governance and internal controls systems, hence leading to the achievement of their intended objectives.

Studies on factors affecting effectiveness of audit committees in the Tanzanian public entities are in deficient. Therefore, it is this gap that provided motivation for this study.

1.1 Theoretical and Analytical Framework

The present study is based on the Agency Theory developed by Jensen and Meckling in [8] in assessing the effectiveness of audit committees in the Tanzanian public entities. The popularity of this theory gained momentum when economists explored risk sharing among individuals or groups (for example; Badara, [9] and [10]). Our choice of this theory is because it reduces the entire corporation to only two participants, that is to say, the managers (agents) and shareholders (principals) and thus it can easily be conceptualized [11,12]. Therefore, managers of public authorities become accountable to government. In the context of this study, the agency theory proposes that management of public authorities have selfish interests and so can manipulate financial statements and falsify other accounting records to satisfy their interests [13]. Also, to monitor the way audit committee executes its mandate, an internal audit function is put in place as a third eye of the board to review and evaluate internal controls, risk management and regulatory compliance. The role of internal audit is indeed essential because of the agency risk at functional management level [14]. The internal auditor can watch out that management complies with the internal policies of the statutory corporation's financial accountability including proper accounting and controls. In the absence of an internal auditor, there is the risk that financial statements, which are one of the financial accountability mediums, contain material

misstatements due to errors and fraud. The argument is that the internal audit presence, independence and competence would increase accountability predisposition of the public authorities [15]. This research therefore contends that the internal auditor is also a monitor of agency risk that can arise at functional management level.

2. MATERIALS AND METHODS

2.1 Description of the Study Area

The study was conducted in Morogoro region in 2021-2022 with aim of assessing the audit committee effectiveness in the selected public authorities in Tanzania. Basing on researcher's convenience, budget and time factor, this study took into account only public authorities with headquarters in Morogoro namely Mzumbe University, Sokoine University of Agriculture, Tanzania Official Seed Certification Institute, Morogoro Urban Water Supply and Sanitation Authority, Tanzania Wildlife Management Authority, Tanzania Forestry Research Institute, Ardhi Institute and Mzinga Corporation.

2.2 Population of the Study

Researchers collected data from the selected public authorities in Morogoro region, specifically from accountants and auditors who constituted study population. Selection of accountants and auditors as respondents of our study is due to the following facts; they possess broad knowledge on internal controls, internal audit functions and they are highly connected with the effective functioning of audit committees in the public authorities. In addition, they are involved in day-to-day activities connected with audit committee compared with the rest of the professionals in the public authorities.

2.3 Sample Size and Sampling Technique

The study used multistage sampling techniques in selecting the area of the study and representative respondents. The first stage involved purposive selection of 8 public authorities at their respective headquarters as mentioned above. The second stage involved random sampling of 15 respondents from each organization in order to get a total of 120 representative sample.

2.4 Data Collection Methods

Both primary and secondary data were collected in 2022 for this study. Primary data were collected through a self-administered questionnaire which gives respondents personal space for replying to the questions presented in the questionnaire accordingly [16]. The method gave the researchers a chance to orally clarify the significance of the study, to establish friendly rapprochement with respondents, to motivated them, and to provide careful explanations, when needed, regarding difficult, significant or complex questions. Furthermore, the secondary data were collected through documentary reviews.

3. RESULTS AND DISCUSSION

3.1 Survey Responses Rate

Initially, researchers intended to collect data from 120 respondents hence questionnaires were distributed to different respondents as it was proposed. After questionnaires being dully completed by respondents, researchers collected them accordingly. Overall, 100 out of 120 questionnaires were filled and used in this study representing a response rate of 83.33% while 16.67% of questionnaires were incomplete i.e., some questions were not addressed. This implies that researchers obtained the required information in examining the factors affecting audit committee effectiveness in selected public organizations in Morogoro Region.

3.2 Variables Definition and Description

In Table 1 below variables like age of the member of AC, gender, education level, independence, size, expertise as well as number of meetings per year were identified and hypothesized to explain its influence on AC effectiveness.

3.3 Logit Regression Results on the Effectiveness of Ac

The study aimed at examining the factors affecting audit committee effectiveness in selected public organizations in Tanzania. In this study, researchers employed seven (7) variables namely age of the member of AC, gender, education level, independence, size, expertise as well as number of meetings per year to measure audit committee effectiveness.

Table 1. Variables definition and description

Variables	Description	Type	Value
AC effectiveness	If audit committees comply with professional standards and requirements i.e., compliance with applicable laws and regulations, evaluation of internal controls, risk management and internal and external audit reports.	Dummy	1 if yes, 0 = otherwise
AGE	Number of years of the member of AC	Categorical	Cat = 18-35 years Cat2 = 36-45 years Cat3 = 46-55 years Cat4 = 56 years and above
GENDER	Gender of the member of AC	Dummy	1= Male, 0= Female
EDULEV	Education level of member of AC	Categorical	1= If diploma, 0= otherwise 2= If bachelor, 0 = otherwise 3= If masters, 0= otherwise
Expertise	Financial expertise of audit committee member	Dummy	1 = yes, 0 = otherwise
Independence	Independence of the AC members	Dummy	1 = yes, 0 = otherwise
Size	Total number of audit committee members	Continuous	Exact number
Meetings	Number of audit committee meetings held during the year	Continuous	Exact number

Source: Based on Apriori Expectations, 2022

Table 2. Model Summary

Step	-2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square
1	32.448 ^a	0.361	0.671

a. Estimation terminated at iteration number 8 because parameter estimates changed by less than .001.

The maximum likelihood method using SPSS 25 was used to estimate the coefficients of the specified logistic regression model. Table 2 presents the estimated logistic regression model with adjusted Pseudo R-squared. Of 0.671 implying that all explanatory variables included in the model were able to explain about 67.1% of the probability to affect audit committee effectiveness in selected public organizations in Tanzania. Though the Pseudo R-squared value was 67.1 per cent, on the other hand, the log likelihood ratio is significant at one percent meaning that the explanatory variables in the logistic regression model i.e., age of audit committee members, gender, education level, independence, size, expertise and the number of audit committee meetings jointly explain perfectly its influence on audit committee effectiveness.

It was found that there is a strong relationship between dependent variable and explanatory

variables included in the model. Basing on the log likelihood ratio, researchers concluded that the logistic regression model used is relevant and appropriate in the prediction of the level of probability of audit committee effectiveness. This means that the null hypothesis that all variables in the model are irrelevant is rejected by the data. The Pseudo R-squared is here reported but it has very little importance and cannot lend itself to the simple interpretation of R² in linear regression models. Very little is therefore gained by reporting it. It is only to know that some computer package reports The Pseudo R-squared with little added insight to the logit model [17,18]. Also, the study findings show that the overall percentage of correct prediction was 87% which indicates that there is a highly significant correlation between the observed and predicted values dependent variables implying that the model's estimates well the data and fit the data at acceptable level [19].

Also, in this analysis the value of the likelihood ratio Chi-square equal to 44.829 with a p-value of 0.000 implying that level of significance is less than 1%. In other terms, this is an indication that the logit model in this study was appropriate implying that all the variables included in the model were jointly different from zero.

The logit regression analysis indicates two variables namely independence and the number of meetings of AC members were statistically significant and positively related to dependent variable while two variables (age and gender of the audit committee members) were significant but negatively signed as assumed in our model specification. Moreover, three variables (education, size of AC and expertise) were not statistically significant though positively related to the dependent variable. Table 3 presents the results.

3.4 The Age of the Audit Committee Members

The study results revealed that the age was statistically significant at (5%) five percent ($p = 0.021$) level of significance. The respondents were categorized into two groups, the old and young workers. Old respondents were assigned the value of 1 and young ones the value of 0. The slope coefficient of age implies that the log odds ratio of old workers to affect AC changes to young workers is -1.932 units. The respective odds ratios of different regressors are listed in the Exp (B) column in Table 3 above.

$$\text{Odd Ratio of the Age} = \left(\frac{P_i}{1 - P_i} \right) = e^{\beta_i} = e^{-1.932} = 0.145$$

The odds ratio of the age variable is equal to 0.145, this means that the odds ratio of age in favour for the effectiveness of a worker in AC will increase 0.145 times if his/her age increases by one unit that is switching from 0 to one in other words switching from young workers to old ones.

3.5 Gender of the Audit Committee Members

In this study gender was found to be negatively related to effectiveness of a worker in AC. Gender was found to be statistically significant at 5% ($p = 0.048$) level of significance indicating that the predominance of male lead to less effectiveness. This is shown by the odds which is equal to 0.065. This means that male workers are more than 0.065 times likely to be effective than their female counterparts. The study result is consistent with the various related studies [20,21] which reported a negatively significant relationship between gender and the effectiveness on AC. This is consistent with what is happening in practice in Tanzania where women apply stricter ethical standards than men, give more importance to their monitoring role and tend to be less tolerant of opportunistic behaviour. Furthermore, Adams and Ferreira [22] reported that women have better patterns of attendance at meetings than men, and invest more effort in their monitoring activities.

Table 3. Logit Regression Results of Audit Committee Effectiveness

Dependent variable: Audit Committee Effectiveness					
Variables	B	Exp(B)	S. E	Wald	Sig.
Age	-1.932	0.145	0.834**	5.363	0.021
Gender	-2.739	0.065	1.384**	3.919	0.048
Education	1.989	7.308	1.600	1.545	0.214
Expertise	2.699	14.867	2.144	1.585	0.208
Independence	2.779	0.062	1.516*	3.360	0.067
Size	0.770	2.159	1.092	0.497	0.481
Meetings	5.239	188.505	1.498***	12.233	0.000
Constant	-14.302	0.000	5.096***	7.876	0.005
Goodness of fit measures					
LR Chi-square (7)	= 44.829				
Prob > Chi-square	= 0.000				
Log likelihood	= 32.448 ^a				
Pseudo R ²	= 67.1				
*** = Significant at 1%; ** = Significant at 5%; * = Significant at 10%					

Source: Field Study, 2022

3.6 Education of the Audit Committee Members

Despite the fact that the education level of the worker was not statistically significant ($p = 0.214$) but met the a priori expectation of positive influence on the effectiveness of AC. It was found that educated worker/member of AC was associated with the ability to access and comprehend information on auditing issues, ethics and standards; and financial reporting quality. The odd ratio for education is 7.308 indicating that AC member who have accounting professional qualifications are more than 7.3 times likely to affect AC effectiveness than members who have no similar education. This finding regarding education level of the audit committee members is consistent with the findings of Ruto [23] who found that the audit committee members with adequate knowledge are more likely to handle issues to do with auditing and financial management in the organization.

3.7 Expertise

Researchers in this study sought to know how the audit committee members' technical skills affects the organization AC effectiveness. Although AC technical skills or expertise was found insignificant in this study, but it was positively related to the AC effectiveness. The expertise met a prior expectation of positive influence on the AC effectiveness with the odd ratio of 14.867. This implies that experience or expertise of the audit committee members is generally considered an important characteristic for its effective operation. The experience or expertise of audit committee members in auditing is positively related to the quality of financial reporting and timeliness. The study result is in line with the finding of various related studies [24,4,6,23] which ascertained AC members of the audit committee with required knowledge and expertise, have a positive implication in the performance and effectiveness of audit committee.

3.8 Independence of Members in the Audit Committee

The independent of members in the audit committee in this study was found to be statistically significant at 10% ($p = 0.062$) level of significance. The study result met a priori expectation of positive relationship implying that independent audit committee increases the

probability of applying auditing ethics and standards. The researcher's view was that, if the audit committee has a large number of members who are independent, automatically the effectiveness of audit committee is enhanced. Baharud-din et al. [25] stated that, availability of independent members in the audit committee promotes reliable financial reporting and successful monitoring of the internal controls in an entity. The study is in line with the findings of Abbott et al. [26] who found that the independence of the audit committee has significant influence to effectiveness of the audit committee.

3.9 Size of Audit Committee Members

Although in this study, a size of audit committee members was found to be insignificant, but it was positively related to effectiveness of AC with odd ratio of 2.159. The study result implies that a larger size of audit committees is more likely to ensure high financial reporting quality. A larger committee appears to remediate internal control material weaknesses better than small committees [27]. This study result is consistent with the findings of various related studies [28,4] who collectively documented that, when there is a large number of members of the audit committee automatically, the effectiveness of the audit committee is enhanced. Also, Herdjiono and Sari [29] demonstrated that the size of the AC is an essential determinant of its effectiveness. Therefore, researchers in this study recommended that an AC should have enough members to be effective in carrying out its responsibilities.

3.10 Number of Meetings of the Audit Committee

The study findings revealed that the number of meetings was highly statistically significant at 1% ($p = 0.000$) level of significance with positive marginal effect on the AC effectiveness. Despite the fact that the frequency of audit committee meetings is associated with higher audit fees, suggesting that more active committees require wider audit scope in order to gain more assurance [30,31] but in this study it met aprior expectation of positive relationship between the number of audit committee meetings and effectiveness of audit committee. The study result is in line with the findings of Soh and Martinov-Bennie [32] who indicated that high frequency of meetings improves financial reporting, internal controls and provides much

support to the internal auditors while contributing towards effectiveness of audit committee.

4. CONCLUSION AND RECOMMENDATIONS

The study aimed at examining the factors affecting effective performance of the audit committee in the selected public institutions in Tanzania. Our findings revealed that effective performance of audit committee is principally influenced by the age of audit committee members, gender, independence, the number of audit committee members, audit committee expertise and the number of audit committee meetings. In addition to effective functioning of audit committee, our findings detail that undertaking of the core functions of internal audit unit namely review and monitoring of internal controls system, risk management and affiliations between internal and external auditors add values to the adequate performance of audit committees. Also, review of financial reports and visibility of activities increase financial accountability hence leading to effectiveness of audit committee. Therefore, for the aim of attaining effective performance of the audit committee in the stated public bodies in Tanzania, it is very vital to take into account the contributions of the determining factors.

COMPETING INTERESTS

Authors have declared that no competing interests exist.

REFERENCES

1. Stewart J, Munro L. The impact of audit committee existence and audit committee meeting frequency on the external audit: perceptions of Australian auditors. *Int J Auditing*. 2007;11(1):51-69.
2. DeZoort FT, Hermanson DR, Archambeault DS, Reed SA. Audit committee effectiveness: A synthesis of the empirical audit committee literature. *Audit Committee Eff Synth Empirical Audit Committee Lit*. 2002:21-38.
3. DeZoort F. An investigation of audit committees' oversight responsibilities. *Abacus*. 1997;33(2):208-27.
4. Alzeban A, Gwilliam D. Factors affecting the internal audit effectiveness: A survey of the Saudi public sector. *J Int Acc Aud Taxation*. 2014;23(2):74-86.
5. Cohen A, Sayag G. The effectiveness of internal auditing: an empirical examination of its determinants in Israeli organizations. *Aust Acc Rev*. 2010;20(3):296-307.
6. Alzeban A, Sawan N. The impact of audit committee characteristics on the implementation of internal audit recommendations. *J Int Acc Aud Taxation*. 2015;24:61-71.
7. Haimon Z. Evaluating the effectiveness of internal auditing in municipalities in Israel. City University London; 1998.
8. Jensen MC, Meckling WH. Theory of the firm: managerial behavior, agency costs, and ownership structure. *Econ Soc Inst*. 1979:163-231.
9. Badara MS. Impact of the effective internal control system on the internal audit effectiveness at local government level. *J Soc Dev Sci*. 2013;4(1):16-23.
10. Arrow K. Discrimination in labour markets: industrial relations section, Working paper No. 30A; 1971. p. 1-31.
11. Korutaro Nkundabanyanga S, M. Ntayi J, Ahiauzu A, K. Sejjaaka S. Intellectual capital in Ugandan service firms as a mediator of board governance and firm performance. *Afr J Econ Manag Stud*. 2014;5(3):300-40.
12. Daily CM, Dalton DR, Cannella AA. Corporate governance: decades of dialogue and data. *Acad Manag Rev*. 2003;28(3):371-82.
13. Kaawaase TK, Assad MJ, Kitindi EG, Nkundabanyanga SK. Audit quality differences amongst audit firms in a developing economy: the case of Uganda. *J Acc Emerg Econ*. 2016;6(3):269-90.
14. Endaya KA, Hanefah MM. Internal audit effectiveness: an approach proposition to develop the theoretical framework. *Res J Fin Acc*. 2013;4(10):92-102.
15. Inaam Z, Khamoussi H. Audit committee effectiveness, audit quality and earnings management: A meta-analysis. *Int J Law Manag*. 2016;58(2):179-96.
16. Sapiei NS, Kasipillai J. External tax professionals' views on compliance behaviour of corporation. *Am J Econ*. 2013;3(2):82-9.
17. Mukherjee C, White H, Wuyts M. *Econometrics and Data analysis for Developing Countries*. London: Routledge; 1998.
18. Gujarati DN, Porter DC. *Basic econometrics*. 5th ed. McGraw-Hill. International Ed; 2009.

19. Lazaro AM, Alexis N. Determinants of credit demand by smallholder farmers in Morogoro, Tanzania. *Afr J Agric Res.* 2021;17(8):1068-80.
20. Sun J, Liu G, Lan G. Does female directorship on independent audit committees constrain earnings management? *J Bus Ethics.* 2011;99(3): 369-82.
21. Srinidhi B, Gul FA, Tsui J. Female directors and earnings quality. *Contemp Acc Res.* 2011;28(5):1610-44.
22. Adams RB, Ferreira D. Women in the boardroom and their impact on governance and performance. *J Financ Econ.* 2009;94(2):291-309.
23. Ruto VJ. The relationship between audit committee effectiveness and financial management in government ministries in Kenya. Unpublished MA [thesis]. University of Nairobi; 2016.
24. Qin M. Risk management: the reinvention of internal control and the changing role of internal audit. *Acc Aud Acc J.* 2007;16(4):640-61.
25. Shokiyah Z, A, Ibrahim MS. Baharud-din. Factors that contribute to the effectiveness of internal audit in public sector. *International. Proceedings of the economics development and research;* 2014. p. 70-126.
26. Abbott LJ, Daugherty B, Parker S, Peters GF. Internal audit quality and financial reporting quality: the joint importance of independence and competence. *J Acc Res.* 2016;54(1):3-40.
27. Goh BW. Audit committees, boards of directors, and remediation of material weaknesses in internal control. *Contemp Acc Res.* 2009;26(2):549-79.
28. Hammersley JS, Myers LA, Zhou J. The failure to remediate previously disclosed material weaknesses in internal controls. *Aud J Pract Theor.* 2012;31(2):73-111.
29. Herdjiono I, Sari IM. The effect of corporate governance on the performance of a company. Some empirical findings from Indonesia. *J Manag Bus Admin.* 2017;25(1):33-52.
30. Hoitash R, Hoitash U. The role of audit committees in managing relationships with external auditors after SOX: evidence from the USA. *Manag Aud J.* 2009;24(4):368-97.
31. Zaman M, Hudaib M, Haniffa R. Corporate governance quality, audit fees, and non-audit services fees. *J Bus Fin Acc.* 2011;38(1-2):165-97.
32. Soh DSB, Martinov-Bennie N. The internal audit function: perceptions of internal audit roles, effectiveness and evaluation. *Manag Aud J.* 2011;26(7):605-22.

© 2022 Millinga and Naho; This is an Open Access article distributed under the terms of the Creative Commons Attribution License (<http://creativecommons.org/licenses/by/4.0>), which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.

Peer-review history:

The peer review history for this paper can be accessed here:
<https://www.sdiarticle5.com/review-history/91193>