

**AUDIT COMMITTEE AS DETERMINANT OF INTERNAL AUDIT FUNCTION
EFFECTIVENESS: EMPIRICAL EVIDENCE OF LISTED COMPANIES IN
TANZANIA**

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ABSTRACT

The objective of this study is to examine the effects of audit committee on internal audit function effectiveness of listed companies in Tanzania. The agency theory produced a framework that guided this study. Data for the study were collected through a cross-sectional survey questionnaire from DSE top management members, board of directors and members of audit committees. Partial Least Square Structural Equation Modeling (PLS-SEM) was used for data analysis. The study reported R^2 of 0.506 implying that audit committee explained 50.6% variation in dependent variable, internal audit function effectiveness. The study observed that audit committee is significantly associated with internal audit function effectiveness of listed companies in Tanzania.

Keyword: Audit Committee, Internal audit function effectiveness, Agency theory; PLS, DSE.

1. INTRODUCTION

The world was awakened by the financial scandals of Enron, World.Com and others to strengthening corporate governance including internal audit function (Jiang, André, & Richard, 2018; Rönkkö, Paananen, & Vakkuri, 2018). This prompted stock exchange regulators the world over to bolster corporate governance of listed companies worldwide. It is considered that corporate governance incorporates four control mechanisms which are the board of directors, audit committees, external auditors and internal audit functions (Hany, Maged, & Ahmad, 2016). It is argued that one of the cornerstone of corporate governance structure within a company monitoring mechanism is its internal audit function (IAF) (Okodo, Aliu, & Yahaya, 2019). It is imperative to note that strengthening of IAF as one of the corporate governance mosaic will play a role in aiding top management and board of directors with effective risk management systems, internal controls systems and good governance processes (Lenz, Sarens, & Hoos, 2017; Mihret & Grant, 2017).

Interestingly, IAF has tremendously transformed itself from accounting centric to management focus in order to add value to the company in attaining its business objectives (Barac, Coetzee, & Van Staden, 2017). The transformation was acknowledged by the Institute of Internal Auditors Global in defining internal audit as an independent, objective assurance and consulting activity designed to add value and improve an organization's operations. It facilitates accomplishment of

corporate objectives by bringing a systematic, disciplined approach to evaluating and improving the effectiveness of risk management, internal control systems and governance processes” (IIA, 2015). For IAF to assure on effectiveness of risk management, internal control systems and governance processes it must be effective itself.

The determinants of IAF effectiveness have been debated by different scholars (Endaya&Hanefah, 2016). Different authors come up with different determinants of IAF. Some variables have emerged from the Institute of Internal Auditors standards ((Al-Twajjry, Brierley, &Gwilliam, 2003), others have arisen from a common body of knowledge contributed by the institute of internal auditors (Jiang et al., 2018) and yet others have come from different theoretical analysis (Busee, 2013; Coetzee & Erasmus, 2017; Cohen & Sayag, 2010; Mbelwa&Lenatusi, 2019; Ramachandran, Subramanian, &Kisoka, 2012). However, the debate is ongoing and none of them examined audit committee as a determinant of IAF effectiveness. Audit committee has been credited for its role in promoting corporate governance and enhancement of IAF (Alhaji& Wan Yusoff, 2012). Many scholars have persistently proclaimed that effective audit committee contributes immeasurably to the effectiveness of IAF by ensuring unrestricted access to systems and information, appropriate scope to internal audit engagement and sufficient budget provided to support execution of the annual internal audit plan (Alhaji& Wan Yusoff, 2012). This paper is an attempt to examine and document whether audit committee has had a significant contribution to the effectiveness of IAF of companies listed at DSE in Tanzania under agency theory lens.

The paper is organized as follows. The next section provides a theoretical literature review and develops hypotheses for the study. Section three describes methodology for the study while section four provides evidence from Tanzania on the subject. findings. Discussion of findings is presented in section five. The final section summarises the paper and draws some pertinent conclusions on the topic.

2. THEORETICAL LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT.

Agency theory provides a theoretical framework for this study. Internal auditing is one of the monitoring mechanism tool for corporate governance. The study therefore generates the hypothesis for the study from the agency theoretical framework.

2.1. Agency theory

Agency theory is bedrock for analyzing IAF effectiveness of listed companies in Tanzania. Several scholars have used agency theory to analyse internal audit phenomenon in different settings (Adams, 1994; Endaya & Hanefah, 2013; Jiang et al., 2018; Mbelwa & Lenatusi, 2019; Ramachandran et al., 2012). Management operations of listed companies in Tanzania are under professional managers contracted as agents for the shareholders, they are given relevant authority for decision making (Jensen & Meckling, 1976).

The professional managers may misuse delegated authorities to cater for their own interest rather than those of shareholders’ wealth maximization (Adams, 1994). More interesting, due to diffuse of ownership in listed companies at the stock exchange, there is no one dominant principal who can monitor management to avoid misuse of company properties in their own interest (Jensen & Meckling, 1976).

The separation of control and ownership of listed companies is perceived to be the cause of

agency problem and the essence of corporate governance (Eisenhardt, 1988; Moldoveanu & Martin, 2001).

Agency theory premises that agent has more information than the principal resulting in information asymmetry between the principal and the agent. It is postulated that due to information asymmetry, the principals cannot know exactly what the agent is doing in the companies leading to agency problem (Adams, 1994). Therefore shareholders are faced with a problem of how internal resources of the company can be controlled to attain goal congruence between shareholders and the management (Zogning, 2017).

In order to resolve the agency problem arising from information asymmetry, conflict of interest and differing perception on risk between the parties, there is a need for monitoring mechanism. Internal audit function and audit committee are established as a monitoring mechanism (Adams, 1994; Jensen & Meckling, 1976). Elmghaamez & Ntim, (2016) argued that agency theory provides a flexible and plausible framework for managerial behaviour through IAF.

2.2. Internal audit function effectiveness.

The word effectiveness is an abstract concept that has different meaning to different people. Joe & Emmanuel, (2016); Rainer, (2014) contend that effectiveness is the achievement of goals and objectives set for the company. It is claimed that management installs IAF in order to assure itself and the board that internal controls, risk management and good corporate governance processes are effective. IAF effectiveness is an area scarcely researched in the academic arena due to reliance on external auditors assessment of internal auditors (Cohen & Sayag, 2010; Endaya & Hanefah, 2013). However, few academic papers on the subject employed different determinants variables to examine IAF effectiveness in varied environments (Chevers, Lawrence, & Laidlaw, 2016; Cohen & Sayag, 2010; Mbelwa & Lenatusi, 2019; Shohihah, Djamhuri, & Purwanti, 2018).

Shohihah, Djamhuri, & Purwanti, (2018) did a study in Indonesia and find that internal auditor competence, independence, relationship between external and internal auditor and management support are the determinants of IAF effectiveness. The study also attributed IAF effectiveness to the decrease of corruption in Indonesia public sector.

Cohen & Sayag, (2010) did a study in Israel and reported that top management support, organizational independence of internal auditors are key determinants of IAF effectiveness. However they did not find support for quality of audit work, professional proficiency and career and advancement as significant determinants for IAF effectiveness in Israel. They dropped audit committee as one of the variables under study because it was less researched.

A study done in Jamaica by Chevers, Lawrence, & Laidlaw, (2016) found that quality of audit investigation, organizational independence, professional proficiency and management support as statistically significant determinants of IAF effectiveness of Jamaican commercial banks.

Another study by Mbelwa & Lenatusi, (2019) done in oil and gas industry in Tanzania found that independence and objectivity, communication, role and scope, competence and work performance are key determinants of IAF effectiveness.

In the reviewed literature above none of them examined the impact of audit committee on IAF effectiveness. Therefore the need for this study is high as it is claimed that audit committee influence IAF effectiveness (Alhaji & Wan Yusoff, 2012)

2.3. Audit Committee

Islam, Islam, Bhattacharjee, & Islam, (2010) defined audit committee as the subcommittee of the board of directors whose purpose is to oversee the accounting and financial reporting process of the company and the financial statements audit. Equally, Badara&Saidin, (2013) described effective audit committee as the one which achieves established objectives. As pointed out earlier, the purpose of audit committee is to oversee efficiency and effectiveness of internal controls systems, risk management and governance processes in the organization (Islam et al., 2010). For an audit committee to be effective, its members should be non-executive directors and independent of management (Mihret& Grant, 2017). In addition, at least financial expertise and knowledge in accounting matters and experience in audits are likely to improve IAF (Koutoupis, Pazarskis, Lazos, &Ploumpis, 2019).

Regular meeting of the audit committee is likely to make a difference. For example, quarterly meeting of the committee would enable frequent oversight of management responsibilities in addressing emerging and current risks of the organization, internal control systems and adherence to corporate governance best practices which reduce information asymmetry (Ramachandran et al., 2012). Al-Twajjry, Brierley, &Gwilliam, (2003) maintain that effective audit committee may be seen within and around the meetings, members' style of questioning the management and instantaneously adoption of internal audit recommendations stipulated in the internal audit reports are likely to make IAF effective. Mkwe, (2013); Ramachandran et al., (2012) reported that frequent interaction between audit committee and internal auditors have a positive impact on internal audit function in Tanzania. Therefore it is postulated that an effective audit committee contributes to IAF effectiveness and hypothesized that:-

H1: Audit committee is positively and statistically significantly related to internal audit function effectiveness in listed companies in Tanzania. A conceptual framework of the study is provided in Figure 1

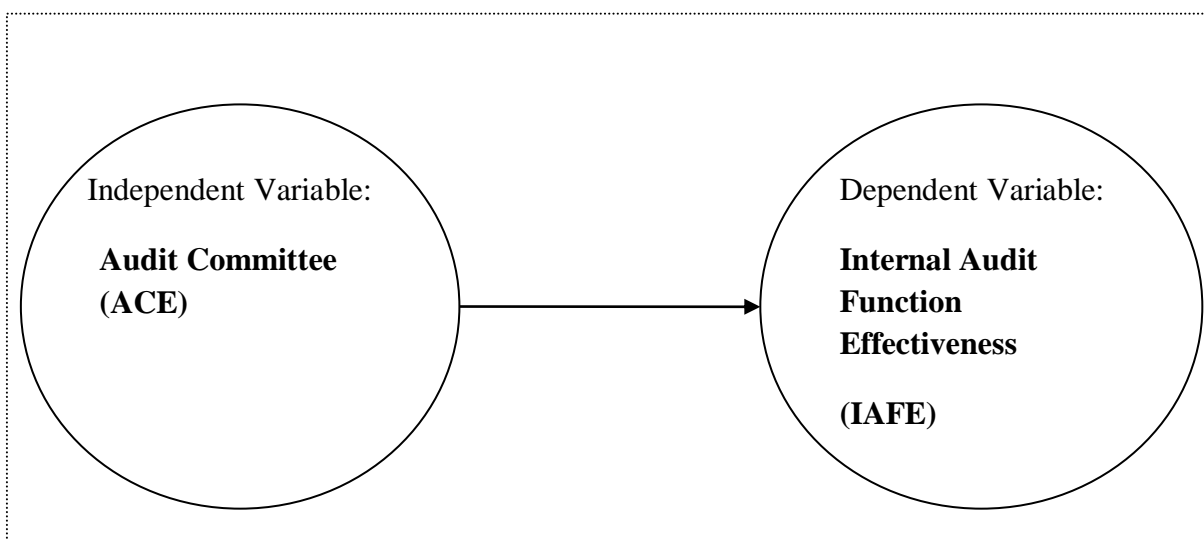


Figure 1:Conceptual Framework of the Study

3. RESEARCH METHODOLOGICAL

The study is based on positivist philosophy where cross-sectional survey questionnaire was used to collect quantitative data for analysis (Saunders, Lewis, & Thornhill, 2012). A Cross-sectional survey strategy was used due to its economical advantage. It, can also approve/refute theories, applicable at a specific point in time, include manifold of variables, collect data of homogeneous and unidimensional items for generalization (Mbelwa & Lenatusi, 2019)

A sample was drawn from 27 listed companies in Tanzania. The listed companies at DSE as at 31st December 2018 were 28 but one company was excluded as it did not meet criteria for inclusion employed by this paper. The inclusion and exclusion criteria are, a company be a public limited, has IAF, its shares are traded freely at DSE by 31st December 2018 DSE (Patino & Ferreira, 2018). Non-probability sampling for this study was deemed appropriate as the purpose was theory testing to explain determinants of IAF effectiveness and more so due to lack of sampling frame of the respondents (Memon, Ting, Ramayah, Chuah, & Cheah, 2017). Respondents for this study were Chief executive officers, board members, audit committee members, Head of Finance, Head of Internal Audit, Chief accountants, Head of Human Resources and Legal officers for the listed companies in Tanzania on DSE. The respondents were chosen by virtue of their position as they were strategically positioned to have relevant and reliable information on assessment of IAF in their companies.

Data for the research were collected from Feb 2019 to September 2019. 160 closed-ended questionnaires were administered to the respondents by face to face or through an email attachment. Respondents were asked to rate their perception on the questionnaire on a 5 point Likert type scale where 1 stands for “strongly disagree” and 5 for “strongly agreed”. 92 valid questionnaires were returned which is equivalent to 57% of response rate.

SPSS software version 22 was used to analyse demographic characteristics of respondents while Smart PLS3-SEM software developed by Ringle, Wende, & Becker, (2015) was used to analyse the structural model relationship between audit committee and IAF effectiveness of listed companies in Tanzania.

PLS-SEM is a second generation multivariate statistical analysis which combines multiple regression and principal factor analysis and can estimate causal effect models simultaneously (Lowry & Gaskin, 2014). PLS-SEM path modeling was chosen due to small population which restricted to small sample size, non-normal data distribution, model complexity where latent variables were measured reflectively by indicators and explanatory of dependent variable (Hair, Howard, & Nitzl, 2020). PLS-SEM was also chosen due to its suitability for theory confirmation (Lowry & Gaskin, 2014)

3.1. Model development.

The study aimed to analyse the effect of audit committee on IAF effectiveness of listed companies in Tanzania. The model was developed on structural equation modeling partial least square basing on the construct generated from the agency theory. PLS-SEM has two parts that are measurement model which relates indicators to their respective latent variables and structural model which relates latent variables against another latent variable (Henseler, Hubona, & Ray, 2016; Tenenhaus, Vinzi, Chatelin, & Lauro, 2005). The structural model encompassed audit committee and IAF effectiveness variables extracted from agency theory. Measurement model which included measures of latent variables were developed based on prior research by different authors as depicted below.

Table: 1 Constructs measurement model

Latent Variable	Indicators	Scale	Author(s)
Internal Audit Function Effectiveness(IAFE)	IAF recommendations are constructive and relevant(IAFE_1)	Interval (5-point scale)	Cohan and Sayag (2010) Coetze and Erasmus (2017)
	IAF recommendations are easily implementable(IAFE_2)		
	IAF recommendations improve internal controls of the company(IAFE_3)		
	IAF provides quality reports for company operations(IAFE_4).		
	IAF objectives always focus on testing high risk areas(IAFE_5)		
	Management satisfied with contributions of IAF(IAFE_6)		
	Board of Directors satisfied with added value of IAF(IAFE_7)		
	IAF contributions meet my expectations(IAFE_8)		
Effective Audit Committee	At least one audit committee(AC) members are expert in accounting and auditing(EAC_1)	Interval (5-point scale)	Mihret& Grant 2017, Islam, Islam 2010, Koutoupis et al 2019.
	Independent members(EAC_2)		
	AC meetings are conducted quarterly basis(EAC_3)		
	AC members are familiar with the company business operations (EAC_4)		

The combination of the structural model and measurement model together form the hypothesized model of the study. The structural model is denoted by Internal Audit Function Effectiveness (IAFE) and Audit Committee (ACE) which test hypothesized model of the study (Hair, Ringle, & Sarstedt, 2011). The measurement model is denoted by IAFE_1 to _8 and ACE_1 to _4 as indicators to measure their related latent variables. A complete model is shown in Figure 2.

4. DATA ANALYSIS AND FINDINGS

The collected data were cleaned for outliers and missing values. Keiser-Meyer -Olkin (KMO) test confirmed sample size adequacy and Barlett’s test of sphericity was significant for factor analysis (Pallant, 2011). The study measurement instruments were confirmed for lack of common method bias to avoid measurement errors which can lead to wrong interpretation of results (Kock, 2017) Generally, the data qualified for statistical analysis.

4.1 Respondents profile

The questionnaires were responded by top management officers from 19 listed companies on Dar es Salaam Stock Exchange. Table 2 reported demographic profile of the respondents. According to Table 2, gender of respondents male were 81.5% while female were 18.%. Regarding respondents education, Table 2 shows that 52.2% had masters’ degree and 42.4% had bachelors degree which confirmed that in total 94.6% were graduate where 5.4% were non degree holders which showed that respondents were educated enough to understand survey questionnaire to provide good responses. Regarding profession of respondents, Table 2 showed that 52.2% were Certified Public Accountants while 18.5% were finance/banking professionals which revealed that the respondents were knowledgeable enough in the field of the study. As presented in Table 2, 59.8% were from financial and insurance sector, 20.7% from manufacturing industry, 8.7% from information and communication while 7.6% from transport and storage sector. Table 2 also reported designation of respondents that 10.9% were CEOs, 15.2% Finance Directors, 23.9% were Head of Internal Audit while 17.4% had different titles. Regarding working experience, Table 2 reported that 42.4% of respondents had more than 11 years experience while 1-5 years were 31.5% and 26.1% had 6-10 years of work experience which depicted that the respondents had pertinent experience to evaluate IAF effectiveness in their respective companies.

Table: 2: Demographic Profile of Respondents

Category	Item	No of Respondents: (N=92)	Valid Percent %
Gender	Male	75	81.5
	Female	17	18.5
Age	Below 30	3	3.3
	31-40	34	37.0
	41-50	30	32.6
	Above 50	25	27.1
Education	Secondary School	2	2.2
	Diploma	3	3.3
	Bachelor Degree	39	42.4
	Masters degree	48	52.2
Profession	Certified Internal Auditor	4	4.3
	Certified Public Account	48	52.2
	Lawyer/Advocate	7	7.6
	Finance/Banking	17	18.5
	Engineer	5	5.4
	HR	8	8.7
	ICT	3	3.3
Company Sector	Manufacturing	19	20.7
	Financial and Insurance	53	59.8

	Information and communication	8	8.7
	Mining & Quarrying	3	3.3
	Transport and Storage	7	7.6
Designation	CEO/MD	10	10.9
	Chair-Audit Committee	4	4.3
	Director Finance	14	15.2
	Director-HR	6	6.5
	Chief Accountant	9	9.8
	Head of Internal Audit	22	23.9
	Company Secretary	5	5.4
	Head ICT	5	5.4
	Others	17	18.5
Working experience	1-5 years	29	31.5
	6-10 years	24	26.1
	11 years and above	39	42.4

Source: Primary data analysis 2019

4.2.Evaluation of Outer Measurement model.

The measurement model was checked for attainment of quality criteria of construct reliability and construct validity (HairJr., Howard, & Nitzl, 2020). Construct reliability or internal consistency was checked through both composite reliability and Cronbach alpha (Hair Jr., Hult, Ringle, & Sarstedt, 2017). While construct validity was measured by both convergent validity and discriminate validity (Pallant, 2011).

4.1.1 Construct Reliability.

Reliability or internal consistent of the measurement instrument was checked through composite reliability(CR) and Cronbach alpha coefficient (Sarstedt, Ringle, Smith, Reams, & Hair, 2014). The cut-off point of CR and Cronbach alpha (α) for established reliability is set at 0.70 and above (Sarstedt, Ringle, & Hair, 2017b). The study reported CR and α value of minimum 0.844 and 0.754 as per Table 3 which confirmed the establishment of reliability of questionnaires as a measure of the constructs.

4.1.2 Convergent Validity.

Convergent validity measures the extent to which indicators in unison measure the same latent variable they belong to. Convergent validity was evaluated through Indicator reliability and Average Variance Extracted (EVA) (HairJr. et al., 2020). Indicator reliability was tested through outer loadings of the latent variables in the model (HairJr, Sarstedt, Hopkins, & Kuppelwieser, 2014). The study applied established variables hence factor loadings above 0.60 were confirmed as indicated in Table 3 (Awang, 2015; Chinn, 1998). Additionally, Variance extracted(AVE) of 0.50 or higher is considered appropriate as indicators measure more than 50% of the respective construct more than error variance (Fornell & Larcker, 1981; Sarstedt et al., 2017b). According to Table 3, observed variables empirically confirm achievement of convergent validity as all latent variables had AVE of above 0.50.

4.1.3 Discriminant validity.

Discriminant validity shows that indicators and their latent variables are unique and uncorrelated to others in the model(Gaskin, 2016). Three criteria of Fornell-larker, Cross-loading and Heterotrait-Monotrait (HTMT) ratio of correlation were applied in the study (Ali, Ali, Badghish, & Baazeem, 2018; Sarstedt et al., 2017b). Anderson & Gerbing, (1988) and Hair et al., (2020) posit that Fornell&Larcker criteria for assessment of discriminant validity require that square root of the average variance extracted (AVE) in the diagonal values of a construct to be higher than values in its column and row which is achieved by this study as shown in Table 4. Cross-loading assessment of discriminant validity to check whether indicator is mistakenly assigned to a wrong construct (Voorhees, Brady, Calantone, & Ramirez, 2016). Chinn, (1998) provides that to attain discriminate validity by cross-loading test, indicators should load more in its own latent variable than indicators from other construct which the study achieved as per Table 5. Heterotrait-Monotrat ratio of correlation (HTMT) was tested for assessment of discriminant validity with a cut-off ratio of 0.85(HTMT) (Henseler, Ringle, & Sarstedt, 2014). Table 6 reported establishment of discriminant validity as HTMT ratio of correlation was 0.835 well below the cut-off point of 0.850. Therefore the study has confirmed that observed variables in the measurement model attained quality criteria for reliability and validity of the study which pave ways for assessment of the structural model of the study.

Table 3: Construct Reliability and Validity Test

Construct	Indicators	Loadings	Cronbach's		
			Alpha	CR	AVE
Audit Committee Effectiveness	ACE_1	0.771	0.754	0.844	0.576
	ACE_2	0.685			
	ACE_3	0.812			
	ACE_4	0.762			
Internal Audit Function Effectiveness	IAFE_1	0.789	0.895	0.916	0.577
	IAFE_2	0.778			
	IAFE_3	0.671			
	IAFE_4	0.806			
	IAFE_5	0.658			
	IAFE_6	0.786			
	IAFE_7	0.772			
	IAFE_8	0.800			

Source-Field Data 2019

Table 4: Fornell-Larcker -Discriminant validity Criterion Test

Latent Variable Correlation(LVC)	ACE	IAFE	Discriminant Achieved? root of AVE
Audit Committee Effectiveness(ACE)	0.759		Yes
Internal Audit Function Effectiveness(IAFE)	0.712	0.760	Yes

Source: Field Data 2019

Table 5: Cross-Loading - Discriminant Validity Criterion test

Indicators	Audit Committee Internal Audit Function Effectiveness(ACE)	Internal Audit Function Effectiveness (IAFE)
ACE_1	0.771	0.561
ACE_2	0.685	0.438
ACE_3	0.812	0.548
ACE_4	0.762	0.594
IAFE_1	0.650	0.789
IAFE_2	0.559	0.778
IAFE_3	0.316	0.671
IAFE_4	0.479	0.806
IAFE_5	0.590	0.658
IAFE_6	0.555	0.786
IAFE_7	0.527	0.772
IAFE_8	0.527	0.800

Source: Field Data 2019

Table 6: HTMT Ration of Correlation

Construct(Latent Variable)	ACE
Internal Audit Function Effectiveness(IAFE)	0.835

Source: Field Data 2019

4.2.Evaluation of the inner structural model of study.

After the measurement (outer) model achieved global quality criteria for construct validity and reliability assessment of the (inner) structural model follows to test hypothesized model (Benitez, Henseler, Castillo, & Schuberth, 2019; Fornell & Larcker, 1981). The structural model was checked for coefficient of determination(R^2), path coefficient(Beta-Value), t-statistics, p-values and predictive relevance(Q^2) as stipulated by Hair Jr. et al., (2017).

4.2.1 Measuring the coefficient of determination (R^2).

R^2 measure goodness of fit of how observed data fit the hypothesized model (Wooldridge, 2016). R^2 measured explanatory power of exogenous variable on endogenous variable therefore it shows effect size and predictive accuracy of the model (Sarstedt, Ringle, & Hair, 2017a). R^2 reported by the structural model according to Figure 2 is 0.506, implying that audit committee as an independent variable explained 50.6% variation in the dependent variable, IAF effectiveness. Chinn (1998) provide that obtained R^2 values of endogenous variable in the region of 0.67; 0.33 or 0.19 are considered as substantial, moderate or weak respectively. Hence the reported R^2 of 0.506 is considered as moderate value for this study.

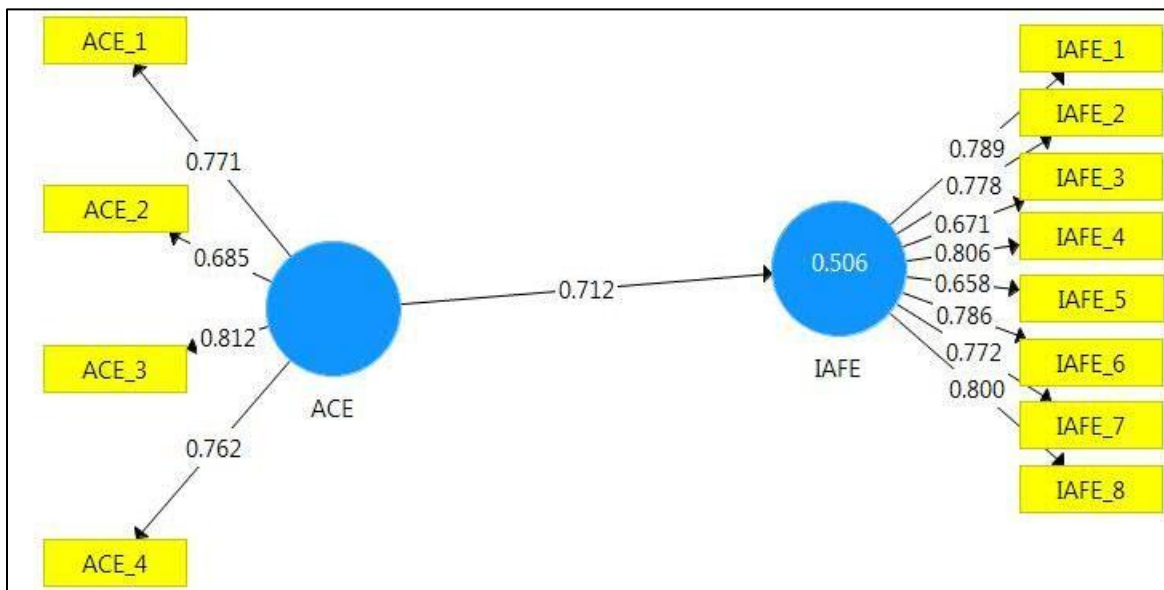


Figure 2: Structural Model

4.1.4. Evaluation of path coefficient (β –Values).

The path coefficient of the model is equivalent to the multiple regression beta values which shows a change of dependent variable as a result of a unit change of an independent variable keeping other variables constant to zero (Sarstedt, Hair, Ringle, Thiele, & Gudergan, 2016). Therefore, path coefficient aid in testing hypothesis of the study. The test of the hypotheses was assessed regarding strength, direction and level of significance of the coefficient of the latent variable in the inner model.

Assessment of the level of significance of path coefficient was tested through bootstrapping to find the level of precision of PLS-SEM estimates (Chinn, 1998). A complete bootstrapping with minimum size of 5,000 subsamples, was done in Smart PLS-SEM, bias correlated, with standardized scores, no sign change and two-tailed test at 0.05 level of significant (Hair et al., 2011; Henseler et al., 2016). A criterion for hypothesis support was that path coefficient must be positive with p-values equal to or less than 0.05 with critical value higher than 1.96 (Hair, Jr, Hult, Ringle, & Sarsdtedt, 2013).

Table 7: Findings of the Structural Model

Hypothesize Path model	Standardized (β –Values)	T - Statistic	P - Values	R ²	Q ²
Effective Audit Committee -> Internal Audit Function Effectiveness	0.712	13.345	0.000	0.506	0.269

Source-Field data 2019: Note: p<0.05 (Two tailed), t value >1.96

The hypothesized model supported that audit committee determines positively and statistically significantly internal audit function effectiveness of the listed companies in Tanzania on DSE. The hypothesis is supported as the path coefficient (β –Values) was positive 0.712 and statistically significant with t-statistics of 13.345 and p-value of 0.00 as per Table 7.

4.1.4 Evaluation of predictive relevance (Q²).

Finally, predictive relevance of the model was checked through blindfolding which revealed value of 0.269 confirming median predictive relevance of the model as it is greater than zero. Hair, Risher, Sarstedt, & Ringle, (2019) provide a rule of the thumb that Q² in range of 0, 0.25 or 0.50 depicts small, median and large predictive relevance of PLS path model respectively. Hence predictive relevance of the study is considered as medium.

5. DISCUSSION OF FINDINGS

The findings of the survey supported the hypothesis that audit committee positively and statistically significantly determines IAF effectiveness of listed companies in Tanzania on DSE. The findings concurred with Alzeban, (2015) and Goodwin, (2003) that audit committee has a positive impact on the internal audit effectiveness. It is also in agreement with assertion that an effective audit committee is an important mechanism to influence IAF effectiveness in a company (Kontogeorgis, 2018; Shamki & Alhajri, 2017). The study results indicated that having an independent audit committee with the company knowledge, experts in auditing and accounting and meeting frequently makes it effective with cascading effect on IAF effectiveness.

6. SUMMARY AND CONCLUSION

The study hypothesized that audit committee impacts positively and statistically significantly IAF effectiveness of listed companies in Tanzania on DSE. The empirical data analysis revealed a positive and statistically significant impact of audit committee as determinant of IAF effectiveness. The audit committee as a construct was measured through independent non-executive directors, committee frequency meetings, members’ expertise in auditing and accounting and knowledge of members of the company business operations. The indicators were found a valid measure of the construct and influenced IAF effectiveness. Therefore, the result supports agency theory of the study that audit committee influence effectiveness of internal audit function in the companies listed on DSE in Tanzania.

Theoretically, the study revealed that audit committee determines effectiveness of IAF in listed companies in Tanzania which can be a nice reference for scholars in internal audit. It can as well inspire researchers to do more research study in developing countries where have dearth of

internal audit studies. The study is vital for listed companies in Tanzania especially those who want to establish or strengthen internal audit function and their audit committees since attributes of this study may be considered appropriate input. Internal audit practitioners may benefit from this study for policies and standards improvement of IAF in Tanzania and beyond.

The study is not devoid of limitations as a caveat for generalization in other areas apart from listed companies in Tanzania on DSE. The empirical data based on 92 respondents from 19 listed companies in Tanzania on DSE which were analyzed through non-parametric statistical of PLS-SEM. Hence a study on the same area is proposed on a wider population from different companies in Tanzania and beyond. Similarly, the results of the study might be affected by the mandatory requirement of listed companies in Tanzania to establish an effective audit committee and IAF. Therefore a study for voluntary installed audit committee and IAF is proposed. Lastly, the study also collected data from companies without separation of in-house, out-sources and co-sources IAF therefore a study for each category is recommended for validation of the model.

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