Assessing the Mediating Role of Audit Committee on the Relationship between Board Independence and Earnings Quality in the Tanzanian Listed Firms

Ezra John Kakozi[1], Henry Chalu[2] and Siasa Issa Mzenzi[3]

Abstract
Using balanced panel data of 72 firm year observations from nine (9) listed firms between 2011 and 2018, the paper examines the influence of board independence, and an active audit committee with accounting and finance expertise on earnings quality in Tanzania. The study is centred on the need for control and monitoring mechanisms due to the agency conflict that exists between shareholders and managers. Our analysis results, using SEM, reveal that board independence has no influence on earnings quality. The result is contrary to the proposition of agency theory. Furthermore, the findings suggest a mediating effect of an active audit committee with finance expertise on the relationship between board independence and quality earnings reported. This study, therefore, answers the call of prior studies to examine the inter-relationship between control mechanisms in ensuring earnings quality. This study recommends that codes of corporate governance, specifically the role of independent directors, should be reviewed in the light of institutional and cultural context, together with enforcement effectiveness in Tanzania.

Keywords: Audit committee, Earnings quality, Independent directors, Tanzania, Listed firms

Introduction

Financial reporting scandals involving the collapse of large firms (for example, Enron, and WorldCom in the USA and Parmalat in Europe) have led to increased questioning of the quality of financial information reported by firms (Armstrong, Guay, & Weber, 2010). It has further raised suspicions and questions regarding the effectiveness of the board as a control mechanism responsible for ensuring that information asymmetry is reduced through quality financial information (Agrawal & Cooper, 2017). The failures were arguably associated with boards which are ineffective in controlling abusive financial reporting practices within firms (Conyon, Judge, & Useem, 2011; Siam, Laili, & Khairi, 2014). These scandals have created an urgent need for increased control mechanisms to improve transparency and protection of shareholders' interest (Armstrong et al., 2010; Firth, Fung, & Rui, 2007; González & García-Meca, 2014). It is, therefore, critically important for firms to establish control mechanisms to improve the quality of financial information reported for transparency and accountability purposes (Bushman & Smith, 2001; Fama & Jensen, 1983). Nevertheless, quality financial information is linked to earnings quality. This is due to the fact that the value of the firm is associated with the earnings figure reported and is subject to accounting manipulation by managers for personal interest (Dechow & Schrand, 2004).

[1]The Institute of Finance Management(IFM)-Tanzania
Email: kakoziezra2@gmail.com
[2] University of Dar es Salaam Business School-Tanzania
[3] University of Dar es Salaam Business School-Tanzania

Earnings quality is used as a comprehensive measure of the quality of the financial information reported by financial statements (Lev, 1989; Dechow & Schrand, 2004). This is because earnings quality reveals the extent to which financial information is faithfully presented in the financial statement (Schipper & Vincent, 2003). Earnings quality is expected to provide reliable and relevant financial information about the firms to their stakeholders (Watts & Zimmerman, 1986). It is expected that the reported financial information will minimize any information gap that exists between managers and investors (Tasios & Bekiaris, 2012). However, there appears to be an information credibility gap arising from the 'distance' between the firm, where financial information is prepared by managers, and the final users of such information. This information gap may lead to conflict of interest, as suggested by agency theory. This creates the need for a means to monitor managers and close that gap.

In response to the need for effective control mechanisms, there are notable efforts in Tanzania to improve the effectiveness of the board and corporate reporting with the view to improving investors' confidence in the country (Mangena & Chamisa, 2008; Nyaki, 2013). Efforts, such as the issuance of codes of corporate governance by the Capital Markets and Security Authority (CMSA), adoption of the guidelines related to professional ethics, accounting and auditing by the National Board of Accountants and Auditors (NBAA), have been made to enhance the quality of financial information for transparency and accountability within the country. It follows that the reforms in corporate governance mechanisms are expected to improve the control and monitoring of the financial reporting process. The board and audit committee are notable control mechanisms responsible for monitoring financial reporting processes in order to ensure that reported earnings is of high quality (Agrawal & Cooper, 2017). Codes of corporate governance and company law in Tanzania require that the board be responsible for monitoring the financial accounting systems of the firm to protect shareholders' interests. It is important for the board to be effective to control the financial reporting processes because of the mismatch of interests that exists between investors and managers.

The board of directors controls and monitors the financial reporting processes of the firm through an audit committee to improve earnings quality (Brennan, 2008). An audit committee is formed by the board to examine financial information reported by the management, to protect shareholder interests. Previous studies report that the effectiveness of the board is largely influenced by board independence (Gouiaa & Zéghal, 2013). It is proposed by the agency theory that firms appoint independent directors to the board to reduce any conflict of interest that arises from separation of management from owners of the firms (Fama & Jensen, 1983). Similarly, codes/principles of corporate governance suggest that a balanced board should include executive directors and non-executive (independent) directors, to enhance the effectiveness of the board in constraining abusive accounting practices.

The current study focuses on independent directors and audit committee for two reasons. Firstly, despite the emphasis to increase the number of independent directors on the board, as suggested by agency theory and the codes of corporate governance, their role to defuse abusive accounting manipulation has been questioned following recent accounting scandals, such as that of NICOL (Fulgence, 2014). NICOL was suspended from trading in 2009 and 2010 after the CMSA noticed abnormalities in its financial statements, with analysts doubting its credibility amid feelings that it was manipulated to influence reported earnings (Fulgence, 2014). Also, a previous study by the

World Bank (2010) suggests poor corporate reporting in Tanzania, while studies by Swai (2016) and Waweru and Prot (2018) suggest the existence of abusive accounting practices in Tanzanian listed firms. This may hinder transparency and accountability, resulting in investors losing confidence in the financial information reported by the firms for decision making (Armstrong *et al.,* 2010). The second reason is that previous studies suggest that ineffectiveness of the board may be associated with lack of sufficient information for the control and monitoring of management activities (Yasin, Muhamad & Sulaiman, 2016). It is, therefore, expected that an active audit committee with accounting and finance expertise will supply the board with the required information to enable rational decision making. Similarly, findings of studies such as that of Armstrong *et al*. (2010) and Agrawal and Cooper (2017), conducted in developed countries such as US and UK, may not be generalized in developing countries' environmental contexts, such as that in Tanzania, due to differences in regulatory and political set ups (Ararat, Claessens & Yurtoglu, 2020).

This study is based on agency theory, resources dependence theory and previous studies which call for the need of effective functioning boards and audit committees. The board and audit committee are considered to be relevant control and monitoring mechanisms of financial reporting processes (Habbash, 2010) to ensure earnings quality for transparency and accountability. The study, therefore, examines the role of the audit committee on the relationship between board independence and the earnings quality of listed firms in Tanzania, to make a contribution to the existing literature. The study provides insight into the impact of board independence in protecting shareholders' interests through the reported earnings quality in the Tanzanian context. Also, the findings answer the call by Yasin et al. (2016) to scrutinize the effect of the audit committee on the relationship between board independence and earnings quality.

The remainder of the paper is structured as follows. The following section presents corporate financial reporting in the context of Tanzania. This is followed by a review of the theoretical and empirical literature, as well as hypotheses development. The research methodology and empirical results are then presented. Finally, the paper draws some conclusions and offers recommendations.

Literature Review and Hypotheses Development

Theoretical Perspective

Agency theory argues that separation of ownership from management may lead to conflict of interest between managers and shareholders, due to the mismatch of interests between them (Fama & Jensen, 1983). The theory proposes control mechanisms, such as a board being established for monitoring management decisions, to reduce conflict of interest between managers and shareholders (Jensen & Meckling, 1976). Furthermore, the theory argues for the board to be independent to improve its effectiveness in controlling management activities. It is, therefore, argued that effectiveness of the board in executing its legal mandate is affected by its composition and should include independent directors (Xie, Davidson III & DaDalt, 2003). Similarly, the self-interest of dominant shareholders may come at the expense of minority shareholders when economic decisions are made (Shleifer & Vishy, 1997). Shareholders taking up management role have access to insider information, while outsider shareholders rely on information reported by management. Therefore, monitoring activities exercised by the board are paramount to ensuring that quality information is reported by the firm.

On the other hand, for the board to be effective various committees are formed to assist specific decision making. According to resources dependence theory, knowledge and specific expertise are resources required to execute their legal mandate (Pfeffer & Salancik, 1978). Therefore, an audit committee is formed to bring specific knowledge and expertise as a resource necessary to examine a firm's reported financial information. Pfeffer and Salancik (1978) argued that directors that form an audit committee are likely to possess skills and expertise in terms of financial and industrial experience that could potentially be beneficial to the board and the firm. The requirement for accounting and finance expertise for audit committee members is expected to support resources dependence theory (Van der & Ingley, 2003) in executing its legal mandate. This is because the audit committee is used as a link between the board, management, and internal and external auditors on matters related to the control systems and financial reporting (Ika & Ghazali, 2012).
Few studies have investigated the influence of board independence and audit committee on the quality of reported financial information in Tanzania. Studies such as Waweru and Prot (2018), based on 480 firm-year observations, and Swai (2016), using 440 firm-year observations, have examined the influence of board and firm-specific characteristics on earnings management in Tanzania and Kenya. These studies found that independent directors distort earnings quality in East African countries. Waweru, Mangena and Riro (2019), based on 248 firm-year observation, investigated the influence of the board on internet corporate reporting in Kenya and Tanzania and found that independent directors do not influence reporting quality.

Also, little is known about the role of an audit committee on the effectiveness of the board independence, despite numerous efforts to improve the control environment to ensure shareholders' protection (Yasin et al., 2016). Unlike the above-mentioned studies, this study focuses on the effect of board independence and the audit committee on earnings quality for a period of 8 years (2011-2018), which is more recent and extensive relative to the previous studies. Furthermore, the study investigates the mediating role of the audit committee on the board independence-earnings quality relationship. It is expected that board independence constrains the discretionary accruals designed to influence managers' self-interest. On the other hand, it is argued that independent directors lack the relevant information required for decision making regarding the firm (Alzoubi, 2019). However, an audit committee is formed to assist the board to gather the information required to make decisions related to financial accounting practices.

Hypothesis Development

Independent Director and Earnings Quality

Board independence refers to proportionate representation of insider and outsider directors on the board of directors. The non-executive directors are viewed as the most reliable in diffusing agency conflicts between management and owners (Fama & Jensen, 1983; Barako, 2007; He, Labelle, Piot & Thornton 2009). The number of insider and independent directors differs amongst countries, and even in some countries the definitions are not homogeneous. Nevertheless, the principal of the threat of self-interest is crucial in defining and determining board independence.
In Tanzania, codes of corporate governance define insider directors (non-independent) as those with another relationship or interest, other than as a director, within the firm (e.g., as employee or shareholder). On the other hand, outside directors (independent) are those directors with no relationship or interest in the firm or its subsidiaries other than as a director. The practitioner literature differentiates between executive and independent director and refers to the independent

director as a "director who is not an employee of the company and should not be having any benefits from the company other than their fee" (CMSA, 2002).

The proportion of non-executive directors on the board is, therefore, an important proxy for board independence, especially given that the appointment and active involvement of non-executive directors is a key determinant of board independence (He et al., 2009). Generally, non-executive directors are believed to be more effective in controlling and monitoring financial reporting processes, to enhance earnings quality. Beasley (1996) investigated the relationship between a board of directors' composition and the likelihood of financial statement fraud, and found that boards of non-fraudulent firms are more likely to have a larger number of independent directors than fraudulent firms. Smaili and Labelle (2009) report similar results, to the effect that the likelihood of financial fraud is higher when the board is composed of a majority of affiliated or internal directors.

The majority of prior studies conducted in developed countries to examine the influence of board independence on earnings quality report positive results. Studies, such as Peasnell, Pope and Young (2005) conducted in the UK, Ajinkya et al. (2005) conducted in the US, Jouber and Fakhfakh (2011) conducted in Canada, and Dimitropoulos and Asteriou (2010) conducted in Greece, suggest that firms with independent boards decrease possible accounting manipulation to increase earnings quality. The findings may also suggest better control environments in developed countries relative to developing countries. Contrary to these results, a study conducted in Portugal by Góis (2009) reported that increases in the proportion of independent directors have no effect over earnings quality. The results may suggest that the effectiveness of independent directors may not be consistent over countries with different cultures and political set ups.

Nevertheless, studies conducted in developing countries report contradicting results. For example, studies, such as Ntim (2011) conducted in South Africa, Mohammad, Wasiuzzaman & Salleh (2016) conducted in Malaysia, and Waweru and Prot (2018) conducted in Kenya and Tanzania, suggest that a board dominated by independent directors is not effective. The results show that independent boards do not improve earnings quality. The findings may be associated with a lack of information for the board to be effective in its decision making. It is argued that executive directors have enough information for control purposes compared to their counterpart independent directors. Similarly, the studies by Waweru et al. (2019) and Khalil and Ozkan (2016) conducted in Malaysia, East Africa and Egypt, respectively, cast doubt on the role of board independence over earnings quality. However, studies conducted by DHU and HBP (2019), Alzoubi (2016) and Ombaba and Kosgei (2017) in Jordan and Kenya, respectively, reveal a positive relationship between earnings quality and board independence. The findings suggest that an increasing number of independent directors on the board will improve the quality of financial information reported by the firm.

The discussion reveals inconsistency in previous studies conducted in both developed and developing countries. This casts doubt on the generalization of the results in the Tanzania context. It is opined that, effectiveness of the board differs from one country to another because of differences in regulations, economics, cultures and politics (Ararat et al., 2020). This calls for a specific study in the Tanzania context. However, agency theory and codes of corporate governance

propose inclusion of independent directors on the board to improve the effectiveness of the board in controlling management activities. It is, therefore, hypothesized that:

H_1; An increase in the number of independent directors on the board influences earnings quality.

Mediating Effect of Audit Committee on the Relationship between Board Independence and Earnings Quality

The audit committee members need to have the experience and expertise necessary to control and monitor financial reporting processes, to move towards improved earnings quality (Xie et al., 2003). The Corporate governance guidelines of listed firms in Tanzania recommend the board to consider members with accounting and finance expertise and related business knowledge in their audit committee composition to enhance the control and monitoring mechanisms. Previous studies reveal that audit committee members with accounting and finance expertise increases the credibility of the financial reports issued to participants in the capital market (Badolato, Donelson & Ege, 2014; Ghafran & O'Sullivan, 2013). The findings reported here imply that audit committees with accounting/finance expertise are capable of understanding financial figures and execute their oversight function of financial reporting processes well and, hence, could influence the quality of earnings positively.

Similarly, audit committee meetings are vital to enhancing the efficient and effective monitoring of management decision making (Abdul Rahman & Ali, 2006; Ghafran & O'Sullivan, 2013). Frequent audit committee meetings improve control of the financial reporting process, thus improving earnings quality (Xie et al., 2003; Abbott et al., 2004). To ensure effective and efficient monitoring it is proposed that at least three or four meetings should be held each year (Yang & Krishnan, 2005), which will enable the committee to examine and review financial information reported by the firm for control and monitoring purposes. Similarly, audit committee meetings allow members to gather relevant information through formal meetings with managers and auditors. The information gathered is necessary for the board to control and monitor management activities in ensuring that shareholders' interests are protected from possible accounting manipulation to favour managers' interests.

Although the board is charged with monitoring the financial reporting processes to protect shareholders' interests (Alves, 2014), the board of directors ensures earnings quality through the audit committee, which is its subcommittee (Turley & Zaman, 2004). Isa and Farouk (2018) contend that the audit committee is important when the firm has a large sized independent board. This is because independent directors lack sufficient of the information required for control purposes, due to the information gap that exists between executive directors and non-executive directors. Despite agency theory and previous studies, such as Dimitropoulos and Asteriou (2010) and Gouiaa and Zéghal (2013), recommending an effective, functioning board and an audit committee to oversee the financial reporting process, little is known about the relationship between board independence and an active audit committee, with accounting and finance expertise, in ensuring earnings quality (Brennan, 2008; Yasin et al., 2016). Reviewed empirical studies report mixed results regarding the relationship between board independence, audit committee and earnings quality. The mixed results could, however, be associated with the fact that most prior studies examined the board independence, audit committee and earnings quality relationship in isolation and ignored the mediation role of the audit committee on the board independence-

earnings quality relationship (Yasin et al. 2016). Nevertheless, the audit committee plays a significant role in the functioning of the board by interacting with other actors, such as management, and internal and external auditors (Ghafran & O'Sullivan, 2013; Cohen, Krishnamoorthy, & Wright, 2004). The interaction ensures prudent operations and a financial reporting process to ensure earning quality.

An audit committee is designed to monitor the financial reporting processes to ensure that earnings quality is reported by the firm, with a view to improving transparency (Zalata, Tauringana, & Tingbani, 2018). Audit committee members with finance expertise and number of meetings held during the period are said to be key determinants of the effectiveness and functioning of the audit committee of the firm in ensuring earning quality (DeZoort, Hermanson, Archambeault & Reed, 2002). To execute its legal mandate, the audit committee examines and scrutinizes financial statements through a series of meetings with auditors and management (Ghafran & O'Sullivan, 2013). Through these meetings the audit committee gathers the information required by the board for decision making with regard to the financial statements prepared by management. The current study examined the role of the audit committee on the relationship between board independence and earnings quality. This study, therefore, posits that the relationship between board independence and earnings quality is likely to be affected by effects of the audit committee. It is, therefore, hypothesised that:

H_{2a}: A proportional increase in the number of audit committee members with accounting and finance expertise has a mediating effect on the board independence - earnings quality relationship.
H_{2b}: An increase in the number of audit committee meetings has a mediating effect on the board independence - earnings quality relationship.

Control Variables

The current study controlled the effect of other factors through the inclusion of firm characteristics measured by firm size and firm leverage, which have been used by previous studies and found to be associated with earnings quality (Waweru & Prot, 2018; Dechow, Sloan & Sweeney, 1995). *Firm leverage* is the ratio between borrowing and total assets. *Firm size* is measured by the total assets of the firm. Firm leverage and firm size may have a positive or negative effect on earnings quality, by increasing or decreasing managerial opportunism through abusive accounting practices. It is contended that large and high leveraged firms may engage less in accounting manipulation, due to the close scrutiny exercised by lenders and financial analysts (Waweru & Prot, 2018; Alves, 2014). Also, large firms have more resources to implement the control systems required to monitor the financial reporting processes to improve reported earnings (Einer & Soderqvist, 2016). Similarly, agency theory and previous studies suggest that debt financing plays an important role in reducing agency conflict (Jensen & Meckling, 1976), thus increasing earnings quality, because of the close monitoring exerted by lenders (Nejad, Abdollahi & Kabiri 2012; Waweru & Riro, 2013).

Research Methodology

This study used both corporate governance (board independence and audit committee) and financial information. Secondary data was collected from annual reports extracted from websites through documentary review. This is because annual reports and the directors' reports are used as a tool by the firm to reveal relevant information regarding corporate governance and financial

information (Healy & Palepu, 2001). As a listing requirement by the Dar es salaam Stock Exchange (DSE) and NBAA, firms disclose information regarding corporate governance practice in the annual report, as by TFRS 1. In addition, secondary data is expected to provide quality information because it has passed a validation process before issuance (Ghauri & Gronhaug, 2010). Data extracted from annual reports related to corporate governance included the number of directors on the board, the number of independent directors, the number of directors on the audit committee with financial expertise, and the number of meetings held by the audit committee in a year. Similarly, financial information, such as total assets, revenues, receivables, property, plant and equipment, operating profit and cash flow from operation were extracted from annual reports. The study considered all non-financial listed firms in DSE with data published through their respective websites. Financial companies (Banks and Insurance firms) were excluded because their capital structure and financial reporting structure is different from that of non-financial firms (Shah, Zafar & Durrani, 2009). Also, cross-listed firms were excluded because they are subject to a different legal set up, which may influence the effectiveness of the board. Listed firms were considered for this study because corporate governance practice is a requirement placed on them by regulatory authorities, such as the CMSA, the NBAA and DSE. Furthermore, the financial data, corporate governance and related information for listed firms are readily available relative to unlisted firms. The study covered a period of eight (8) years, spanning from 2011 to 2018, since TFRS 1 (Directors Report) became operative for accounting period beginning July 1, 2009/2010. Table 1 describes the sample selection procedure to establish the final sample of the study.

Table 1: Final Sample of the Study

Total number of listed firms in DSE	28
Less: Cross Listed Firms	05
Less: Banks and Insurance Firms	10
Less: Firms excluded due to insufficient data	04
Final Sample of The Study	**09**

Data Analysis and Model Specifications

Model for Dependent Variable

This study used the accounting accruals' approach to measure earnings quality (dependent variable). Accounting accruals are an effective means of performance evaluation of the firm (Fama & Jensen, 1983). However, discretionary accruals (DAC) can be used by self-interested managers to manipulate accounting information in order to influence the reported results at the investors' expense (Fama & Jensen, 1983). Consistent with previous studies on accounting accruals (Diamantopoulos & Asteriou, 2010; Dechow, Ge & Schrand, 2010), the study used the modified Jones model (1995) to measure earnings quality as proposed by Dechow, Sloan, & Sweeney (1995). The model is considered appropriate and strong to measure the quality of earnings (Mostafa, 2017). The model is capable of not only separating non-discretional accruals (NDAC) and discretionary accruals (DAC), but it also considers changes in accruals from time to time, due to changes in business economic conditions (Mostafa, 2017). Non-discretionary accruals are associated with normal operation of the firm, whereas discretionary accruals stem from discretion allowed by accounting standards to managers in preparation of financial statements. A decrease in reported discretionary accruals implies that earnings quality increases.

The specific regression parameters or regression coefficients α (α_0, α_1, α_2,…, α_n) were estimated for selected variables in the model by running pooled cross-sectional and time series regression, as proposed by studies such as Mostafa (2017), and Habbash, Sindezingue and Salama (2013). The following steps were used to compute DAC as the measured of earnings quality;

(i) First, Total Accruals (TAC) for each observation was calculated

TAC = Net Income before Extra-Ordinary Income- Operating Cash flows.

$$\frac{TAC_{it}}{TA_{it-1}} = EBEOIit - CFOit \qquad \text{------------------- (1)}$$

Where,

$EBEOI_{it}$- Net Income before Extra-Ordinary Income for firm $_i$ at time t; CFO_{it}- Cash flows from Operations for firm $_i$ at time t.

(ii) Second, the level of NDAC for each observation calculated

$$NDAC = \alpha_1\left(\frac{1}{TA_{it-1}}\right) + \alpha_2\left(\frac{\Delta Rev_{it} - \Delta Rec_{it}}{TA_{it-1}}\right) + \alpha_3\left(\frac{PPE}{TA_{it-1}}\right) + \varepsilon_{it} \qquad \text{....(2)}$$

(iii) Then level of NDC was deducted from Total Accruals (TAC) to find the DAC.

$$DAC_{it} = \left(\frac{TAC}{TA_{it-1}}\right) - NDAC_{it} \qquad \text{....................(3)}$$

Model for Detecting the Effect

Direct Effect

The study employed a structural equation modelling (SEM) approach, with the view to improving the precision of the reported results compared to standard multiple regression models (Iacobucci, Saldanha, & Deng, 2007; Wolf, Harrington, Clark & Miller, (2013). This is because the model is able to generate simultaneously both the direct and indirect effects, while controlling measurement errors (Gunzler, Chen, Wu & Zhang, 2013). To establish the mediation effect size, this study considered both full and partial mediation effects. Using the modified causal steps method approach, mediation effect size was established using the Sobel-test to test the significance of the mediating effect. A statistical package built into STATA (medsem) was used to test the conditions proposed by Iacobucci et al. (2007) and the significance of the mediating effect, which enabled conclusions to be drawn about the effects (Mehmetoglu, 2018).

Analysis of the reported results was made through the following data estimation equation model, which tested the relationship between board independence and earnings quality for hypothesis H_1'

$DACit = \alpha it0 + \beta_1 BIND_{it} + \beta_2 FS_{it} + \beta_3 FL_{it} + \varepsilon_{it}$.. *(4)*

Whereas; *DAC* represents discretionary accruals as a measure of earnings quality; *BIND* represents board independence measured by the proportion of non-executive directors on the board; *FS* represents firm size measured by the natural log of total assets; *FL* represents firm leverage measured by percentage total assets financed by borrowings.

Indirect Effect

The study further examined the role of an active audit committee with accounting and finance expertise on the relationship between board independence and earnings quality. The following data estimation equation models were used to examine the mediating effect of the audit committee on

the relationship between board independence and earnings quality to test the hypotheses, H_{2a} and H_{2b}, using the modified Baron and Kenny causal step approach, as suggested by Iacobucci et al. (2007)

$ACMEET_{it} = \alpha_{it0} + \beta_1 BIND_{it} + \varepsilon_{it}$...................... (5)

$ACMEET_{it} = \alpha_{it0} + \beta_1 BIND_{it} + \varepsilon_{it}$...................... (6)

$DAC_{it} = \alpha_{it0} + \beta_1 ACMEET_{it} + \varepsilon_{it}$.........................(7)

$DAC_{it} = \alpha_{it0} + \beta_1 ACFIN_{it} + \varepsilon_{it}$.............................(8)

$DAC_{it} = \alpha_{it0} + \beta_1 BIND_{it} + \varepsilon_{it}$...............................(9)

whereas; ACFIN represents audit committee members with accounting and finance expertise and ACMEET represents the number of audit committee meetings.

Empirical Results

Descriptive Statistics

Table 2 presents summary statistics for the independent variable, mediating variable, control variables and dependent variable. The results show that the discretionary accruals (DAC) ranged from -6.4 to 11.67, with a mean value of 0.98. The findings suggest the possibility of listed firms engaging in income increasing (decreasing) practices to achieve managers' desired targets. Also, the reported results suggest that about 87% of the board members were independent directors, with a minimum of 36% and a maximum of 100%, implying that all the sampled firms complied with the codes of corporate governance, which recommend that one third (1/3) of board members be independent directors. The findings are consistent with those reported by Waweru and Riro (2013), who found that listed firms in Kenya may have engaged in earnings management.
About 71% of audit committee members had accounting and finance expertise, with a minimum of 33% and a maximum of 100%. The findings suggest that all listed firms exceeded the requirements for at least one member of the committee to have accounting and finance expertise. The results may suggest that boards of listed firms in Tanzania emphasize the use of members with accounting and finance expertise on the committee to enhance its ability to review and scrutinize financial information reported by the firm, to protect shareholders' interest. Similarly, the reported results show that, on average, 4 meetings were held each year, with a minimum of 2 and a maximum of 5. The results suggest that the majority of non-financial listed firms in Tanzania complied with the requirement of 3 to 4 meetings, as recommended by the codes of corporate governance.

The summary statistics for the control variables reveal that, on average, 21% of the assets of listed firms were debt financed, with a minimum of 14% and a maximum of 75%. However, on average, assets value stood at 18, with a minimum of 14 and a maximum of 22.93.

Table 2 Summary Statistics

Variables	Mean	Minimum	Maximum
Independent board	0.86	0.36	1
Audit committee finance expertise	0.71	0.33	1
Audit committee meetings	3.55	2	5
Firm size	17.94	14.06	21.93
Firm leverage	0.21	0	0.75

Results and Discussions

Goodness test of model fit using Root Mean Square Error of Approximation (RMSEA) was conducted to examine suitability of SEM for data analysis. As shown in Table 3, the result of RMSEA is 0.000. Since it is less than 0.05, it indicates the error value is small suggesting strength and usefulness of the model as well as its applicability on analyzing our data on hand (Schermeller-Engel, Moosbrugger & Muller, 2003).

Tables 3 and 4 present the results of the structural equation modelling (SEM), which tested the direct and indirect effects of board independence and the audit committee on earnings quality. Furthermore, the study reports a mediation effect, size tested through the Sobel test. The results reveal that independent directors on the board are insignificantly positive related with discretionary accruals. This implies that a board dominated by independent directors is not a mechanism that can be used to control abusive accounting practice designed to favour managers' interest, in the Tanzania context. The findings reject the hypothesis that independent directors on the board have an influence over earnings quality. The ineffectiveness of the independent directors in defusing abusive accounting practices is probably due to concentrated ownership, whereby the owners tend to have close monitoring of their business affairs.

Similarly, shareholders may participate in management of the business, thus making it difficult for independent directors to control the financial reporting processes to ensure that earnings quality is improved. This is because the participation of majority shareholders in management probably intervenes in the board appointment processes to ensure that the appointed independent directors favour their interest. On the other hand, the presence of a powerful CEO may contribute towards the ineffectiveness of independent directors in controlling and monitoring managers' activities. Also, the findings may be associated with a low commitment of independent directors in executing their legal mandate.

The results are contrary to studies, such as Alves (2014), and the proposition put forward by agency theory and the codes of corporate governance, which advocate board independence to enhance its effectiveness in constraining agency problems. This is probably because the rules and regulation governing corporate governance differ between countries. However, the current study finding is consistent with previous studies conducted in developing economies, such as those by González and García-Meca (2014), Waweru and Prot (2018) and Waweru *et al*. (2019). These studies used panel data analysis models to examine the effect of board characteristics on the quality of the reported information. The findings show that board independence does not constrain discretionary accruals from improving earnings quality.

Regarding control variables, consistent with findings by Alves (2014) and Einer and Soderqvist (2016), this study found a significant negative influence of firm size and firm leverage on discretionary accruals. The findings reported in Table 3, below, show that firm size and firm leverage constrained abusive accounting practices to improve earnings quality. The findings confirm the importance of lenders and sufficient resources, defined by large firm as control mechanisms, which can address abusive financial practices. The regression analysis results suggest that large firms and high leverage firms are less vulnerable to accounting manipulation, which distorts the quality of financial information reported by the firm.

Audit committee, measured by audit committee meetings and audit committee accounting and finance expertise, was introduced as a mediating variable on the relationship between board independence and earnings quality. The test for the necessary conditions of the mediating effect, as proposed by Iacobucci et al. (2007), shows that there was a strong significant relationship between board independence (predictor variable) and audit committee meetings (mediating variable) at the 5% significance level (β=-0.262, p=0.015). Also, the results suggest that there was a strong significant relationship between audit committee meetings (mediator variable) and earnings quality (dependent variable) at the 5% significance level (β=0.245, p=0.011). The results imply that a large number of independent directors on the board was more likely to discourage audit committee meetings, with a decrease in audit committee meetings tending to increase earnings manipulation. This is probably because audit committee meetings are a tool used by the board to review and examine financial statements to ensure that quality financial information is reported for accountability purposes (Beasley, 1996; Ghafran & O'Sullivan, 2013; Feng, 2014; Ormin, Tuta & Shadrach, 2015).

On the other hand, the study findings indicate that board independence was statistically insignificant related to earnings quality (β =0.124, p=0.215). Furthermore, the Sobel test suggests that the effects size (with p=0.079) was insignificant at the 5% level of significance. As can be seen, the results for condition 1, condition 2 and condition 3, as well as the Sobel test suggest the existence of a partial (complimentary) mediating effect. The findings support Hypothesis (H_{2b}), which proposes that audit committee meetings mediate the relationship between board independence and earnings quality. Similarly, the mediated effect size is explained by the ratios of the indirect effect on the direct effect, and that of the indirect effect on the total effect. The results reveal that about 108% of the effect of board independence on earnings quality was explained by audit committee meetings. Additionally, the mediated effect was about 0.5 times as large as the direct effect of board independence on earnings quality.

Audit committee members with accounting and finance expertise are expected examine and scrutinize any financial information reported and are better placed to detect fraudulent reporting. The test results for condition one suggest that an increase in the number of independent directors on the board relative to executive directors decreased (significantly) the demand for audit committee members with accounting and finance expertise (with β=-0.332 and p=0.001). However, the results for condition two suggest that increasing the number of audit committee members with accounting and finance expertise improved (significantly) earnings quality in the Tanzanian context. The findings are similar to those of prior studies, such as Klein (2002), Abbott et al. (2004) and Feng (2014), which recommended active audit committee members with accounting and finance expertise to enhance the effectiveness of audit committees in executing their legal mandate. On the other hand, the test results for condition three indicate that board independence was statistically insignificant related to earnings quality (β =0.124, p=0.215). Furthermore, the Sobel test suggests that the effects size (with p=0.058) was insignificant at the 5% level of significance. As can be seen, the results for condition 1, condition 2 and condition 3, as well as the Sobel test suggest the existence of a partial (complimentary) mediating effect.

Furthermore, the mediated effect size was explained by the ratio of the indirect effect on direct effect, and that of the indirect effect on the total effect. The results show that about 39% of the effect of board independence on earnings quality was explained by the presence of audit committee

members with accounting and finance expertise on the committee. Similarly, the mediated effect was about 0.6 times as large as the direct effect of board independence on earnings quality measured by discretionary accruals. This implies that Hypothesis (H_{2a}) is supported partially, with a view that audit committee accounting and finance is a mechanism through which board effectiveness can be influenced, to ensure earnings quality.

Table 3: Direct Effect Analysis results

	Discretionary Accruals		
	Coef	p. value	z-value
Board Independence	3.54	0.197	1.29
Audit Committee Fin. Expertise	-3.80	0.042**	-2,03
Audit Committee Meeting	1.30	0.027**	2.21
Firm size	-1.45	0.019**	-6.36
Firm leverage	-4.58	0.000***	-2.34
**** p<0.01, ** p<0.05, * p<0.1*			
LR test of model vs. saturated: chi2(1) = 63.96, Prob > chi2 = 0.000			
Root Mean Square Error of Approximation (RMSEA) =0.000., Prob <= 0.05			

Table 4: Mediating Effect Analysis Results

			Indirect Effect of BIND on DAC Through ACMEET				
	ACMEET		DAC		Sobel-Test		
Variables	Coeff.	p-value	Coeff.	p-value	p-value	RIT	RID
Board independence	-0.262	0.015	0.124	0.215	0.079	108%	0.5
			Indirect Effect of BIND on DAC Through ACFIN				
	ACFIN		DAC		Sobel-Test		
Variables	Coeff.	p-value	Coeff.	p-value	p. value	RIT	RID
Board independence	-0.332	0.001	0.124	0.215	0.058	39%	0.6
Whereas; BIND represents board independence; DAC represents discretionary accruals; ACFIN represents audit committee accounting and finance expertise, and ACMEET represents audit committee meetings; RIT represents the ratio of indirect effect over the total effect, while RID represents the ratio of indirect effect over the direct effect.							
Refer appendix							

Conclusions and Implications

The role of the audit committee on the relationship between board independence and earnings quality has been discussed. It was expected that independent directors would enhance the effectiveness of the board, as commended by agency theory, previous empirical studies and the codes of corporate governance. Discretionary accruals were considered as a measure of earnings quality. The decreases in discretionary accruals were expected to improve the earnings quality reported by the firms. A panel dataset was analyzed through SEM. The results for the relationship between board independence and earnings quality were established. Furthermore, the mediating

effects of the audit committee on the relationship between board independence and earnings quality was examined.

The presence of a negative insignificant relationship between board independence and earnings quality of non-financial listed firms in Tanzania implies that there is no evidence which suggests that independent directors are an effective mechanism to control abusive accounting practices to protect shareholders' interests through earnings quality. However, the study concludes that audit committee members with accounting and finance expertise are better mechanisms which can be used to increase transparency and accounting in the firm. Furthermore, it can be noted that audit committee meetings cannot guarantee that abusive accounting practices cannot be engaged in by managers of non-financial listed firms in Tanzania.

Additionally, the study concludes that the audit committee mediates the relationship between board independence and earnings quality. Audit committee accounting and finance expertise (competitive) and audit committee meetings (complementary) mediate the influence of non-executive directors on earnings quality. While audit committee accounting and finance expertise mediates to improve the effectiveness of board independence in constraining fraudulent reporting in ensuring earnings quality, audit committee meetings mediate to enhance abusive accounting practices.

The findings suggest that agency theory and its proposition in its original set up may not apply in the Tanzanian context. Agency theory recommends an independent board to ensure the effectiveness of the board. However, the current study suggests that for independent directors to be effective requires the use of an audit committee with accounting and finance expertise in controlling management activities, to improve earnings quality. This indicates that it is necessary for the board to re-align with an audit committee with accounting and finance expertise in order to be effective.

This study provides inputs that may help CMSA and DSE to look with more insight into the corporate governance related issues within the Tanzania context. In line with the study findings and the conclusion thereon, the study recommends a review of the codes of corporate governance, specifically the appointment process, to ensure that non-executive directors appointed by the firm to the board are effective in controlling management activities, through an effective audit committee. This is because, despite all listed firms complying with recommendations issued under the codes of corporate governance, it was found that non-executive directors were not an effective control of abusive accounting practices.

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APPENDIX

1 Mediation Analysis Results

```
. medsem, indep(bind ) med(acmeetings ) dep(new_dacc2) stand mcreps(72) rit rid

  Significance testing of indirect effect (standardised)
```

Estimates	Delta	Sobel	Monte Carlo
Indirect effect	-0.064	-0.064	-0.069
Std. Err.	0.038	0.036	0.037
z-value	-1.708	-1.759	-1.857
p-value	0.088	0.079	0.063
Conf. Interval	-0.138 , 0.009	-0.136 , 0.007	-0.183 , -0.018

```
  Baron and Kenny approach to testing mediation
  STEP 1 - acmeetings:bind (X -> M) with B=-0.262 and p=0.015
  STEP 2 - new_dacc2:acmeetings (M -> Y) with B=0.245 and p=0.011
  STEP 3 - new_dacc2:bind (X -> Y) with B=0.124 and p=0.215
           As STEP 1 and STEP 2 are significant and neither STEP 3 nor
           the Sobel's test above is significant the mediation is partial!


  RIT  =   (Indirect effect / Total effect)
           (0.064 / 0.060) = 1.076
           Meaning that about108 % of the effect of bind
           on new_dacc2 is mediated by acmeetings!


  RID  =   (Indirect effect / Direct effect)
           (0.064 / 0.124) = 0.518
           That is, the mediated effect is about 0.5 times as
           large as the direct effect of bind on new_dacc2!
```

```
. medsem, indep(bind ) med( acfin ) dep(new_dacc2) stand mcreps(72) rit rid

  Significance testing of indirect effect (standardised)
```

Estimates	Delta	Sobel	Monte Carlo
Indirect effect	0.080	0.080	0.079
Std. Err.	0.043	0.042	0.047
z-value	1.871	1.893	1.696
p-value	0.061	0.058	0.090
Conf. Interval	-0.004 , 0.163	-0.003 , 0.162	0.008 , 0.209

```
  Baron and Kenny approach to testing mediation
  STEP 1 - acfin:bind (X -> M) with B=-0.332 and p=0.001
  STEP 2 - new_dacc2:acfin (M -> Y) with B=-0.239 and p=0.020
  STEP 3 - new_dacc2:bind (X -> Y) with B=0.124 and p=0.215
           As STEP 1 and STEP 2 are significant and neither STEP 3 nor
           the Sobel's test above is significant the mediation is partial!


  RIT  =   (Indirect effect / Total effect)
           (0.080 / 0.203) = 0.391
           Meaning that about 39 % of the effect of bind
           on new_dacc2 is mediated by acfin!


  RID  =   (Indirect effect / Direct effect)
           (0.080 / 0.124) = 0.643
           That is, the mediated effect is about 0.6 times as
           large as the direct effect of bind on new_dacc2!
```

SEM Analysis Model