Impact of board characteristics on auditor choice by deposit money banks in Nigeria

Khadijat Adenola Yahaya* and
Khairat Taiwo Ajibola

Department of Accounting,
University of Ilorin,
Ilorin, Nigeria
Email: khadijatadenola@yahoo.com
Email: ktajibola@gmail.com
*Corresponding author

Abstract: The issue of board characteristics has received attention from the auditing profession due to users' demand for good governance. This study examined how board characteristics *affect* the selection of auditors by deposit money banks in Nigeria through the use of ex-post facto research design. The study used secondary data collected from annual reports of six selected banks in Nigeria for the period of ten years covering 2008–2017. Panel logistic regression was adopted. Findings revealed that board size had positive and significant relationship with auditor choice (0.758). Board independence and financial leverage exhibited negative but significant relationship with auditor choice (–10.71: –25.69). The study concluded that board size, board independence and financial leverage are important factors in the selection of high quality auditor by banks. It was recommended that independent directors should be allowed to take active part in the day to day activities of the banks to boost their operational efficiency.

Keywords: auditor; board size; board independence; financial leverage; deposit money banks; Nigeria.

Reference to this paper should be made as follows: Yahaya, K.A. and Ajibola, K.T. (2020) 'Impact of board characteristics on auditor choice by deposit money banks in Nigeria', *African J. Accounting, Auditing and Finance*, Vol. 7, No. 2, pp.126–142.

Biographical notes: Khadijat Adenola Yahaya is an Associate Professor of Accounting at the University of Ilorin, Ilorin, Nigeria. She is the current Head of the Department of Accounting, Faculty of Management Sciences, University of Ilorin, Ilorin, Nigeria. Her areas of specialisation include financial reporting, taxation and cooperate finance. She has many publications in local, national and international outlets. She is also an associate member of the Institute of Chartered Accountants of Nigeria (ICAN) and Chartered Institute of Taxation of Nigeria (CITN).

Khairat Taiwo Ajibola is a postgraduate student at the Department of Accounting, Faculty of Management Sciences, University of Ilorin, Ilorin, Nigeria. Her area of specialisation is financial reporting. She is also an associate member of the Institute of Chartered Accountants of Nigeria (ICAN).

Copyright © 2020 Inderscience Enterprises Ltd.

1 Introduction

The aftermath of worldwide financial related scandals *necessitated* the need for sound and reliable financial reporting. This has prompted most organisations to demand for external audit. An independent external audit assures all users of accounting information about the quality, accuracy and reliability of information in the financial reports. Notably, auditing plays an important role in corporate governance process and this is essential in enhancing the credibility of financial information.

A company's choice of auditor could indicate its commitment to transparent financial reporting and selection may be due to either cost or quality consideration or both. Nigerian deposit money banks occupy a vital position in the economy and thus require high quality audit. This accounts for their preference in the service of big four audit firms. The big four audit firms in Nigeria are Akintola Williams Delloite, Ernest and Young, KPMG Professional Services and Price Waterhouse Coopers. These audit firms have requisite incentives to provide high quality audit services compared to their counterparts in the market (Choi and Wong, 2007).

More importantly, the globalisation of economy and rapid advances in information and communication technology have presented great challenges for boards (Conger et al., 2001; Keil and Nicholson, 2003). The board of directors make decision about choice of auditor with the intention to reduce agency problem which arose as a result of separation of ownership and control. Consistently, Ojo (2009) opines that the involvement of external auditors can enhance the quality of financial reporting and address the expressed agency problem. The selection of high quality auditors by large companies with extensive financial needs is consistent with evidences in prior studies (Dina, 2018; Knechel et al., 2008; Olowookere and Inneh, 2016). Smaller companies may be more sensitive to the benefits they obtain from auditors in the areas of improving internal operations and gaining access to expert advice.

The two main drivers of auditor choice are given in academic literature. The first *driver* focuses on the reduction in information risk that accrues as audit leads to more reliable reporting. Firms with higher agency costs are motivated to choose a reputable audit firms to strengthen their corporate governance and thus reduce potential agency conflicts (Francis and Wilson, 1988; Mansi et al., 2004; Fan and Wong, 2005; Knechel et al., 2008; Lin and Liu, 2009; Mantonti et al., 2016). The second *driver* argues that higher audit quality improves the operational efficiency and effectiveness of a firm through the evaluation of its internal process, deterrence against management malfeasance and increased compliance with legal and regulatory positions.

The *Organization for Economic Co-operation and Development (OECD)* further posited that the usefulness of disclosed information often depends on the experience and quality of auditors. Fernley and Beattie (1995) noted that auditor choice is motivated by three possible factors viz., audit environment, audit firm characteristics and client's characteristics. Similarly, Revier and Schroe (2010) concluded that three groups of variables can explain the auditor choice; the audit firm variables, the institutional variables and the firm variables.

Board of directors serves numerous stakeholders and investors through their autonomous oversight functions and their decision on the choice of auditors which promotes accountability and reinforces trust and confidence in the quality of financial

reporting. The decision to have an auditor and switch auditors is complex (Sijie, 2013). In most cases, a change of auditor may be due to demand for audit quality.

According to De Angelo (1981) and Francis (2004), an audit is a differentiated produce defined by the identity of the supplier. The brand name and reputation of an auditor are defining attributes that differentiate the quality of services rendered by the audit firms (Simunic and Stein, 1987). Larger audit firms with a global presence have the reputation for providing high quality audit resulting from economies of scale and their investment in human and technological resources.

1.1 Objectives of the study

The general aim of this study is to examine the impact of board characteristics on auditor choice by deposit money banks in Nigeria. Specifically, the study seeks to:

1 Investigate the impact of board size on auditor choice by deposit money banks in Nigeria.

2 Examine the impact of board independence on auditor choice by deposit money banks in Nigeria.

3 Assess the influence of board diligence on auditors' choice by deposit money banks in Nigeria.

4 Ascertain the effect of board tenure on auditors' choice by deposit money banks in Nigeria.

1.2 Research hypotheses

The following hypotheses were stated null form in line with the aims of the study:

$H0_1$ There is no significant relationship between board size and auditors' choice by deposit money banks in Nigeria.

$H0_2$ There is no significant relationship between board independence and auditors' choice by deposit money banks in Nigeria.

$H0_3$ Board diligence has no significant relationship with the auditors' choice by deposit money banks in Nigeria.

$H0_4$ There is no significant relationship between board tenure and auditors' choice by deposit money banks in Nigeria.

1.3 Statement of the problem

A critical review of the Nigerian banking system over the years has shown that one of the problems confronting the sector is poor corporate governance. The monitoring role of the board in the selection of auditors is expected to enhance the integrity of financial report and increase users' confidence in audited financial statements. Moreover, the board's attributes that influence the validity of accounting statements are of great importance to creditors and other stakeholders. However, it is not clear whether these attributes really influence the level of audit quality given the recent bank failures. This study is an empirical investigation of how board's characteristics affect auditor choice by Nigerian

deposit money banks. It contributes to limited literature on the issue and reveals the magnitude and direction of the relation between board characteristics and auditor choice.

1.4 Motivation for the study

The demand for users credibility of financial statements coupled with increased competition in the audit market has led to the desire to understand the role of the board in the selection of bank's auditor. It has been observed that most deposit money banks in Nigeria failed to accept their roles in corporate scandals despite the strict government regulation in the sector. In addition, most banks are still struggling to link the importance of board characteristics and how it relates to choice of auditors. This study is thus motivated by the concern to explore how certain board characteristics affect the choice of auditors by deposit money banks in Nigeria.

1.5 Scope and significance of the study

This study is restricted to deposit money banks listed on the floor of Nigerian Stock Exchange as at 31st December 2017 for a period of ten years covering 2008 to 2017. This period was chosen as it witnessed a period when the Nigerian capital market was in freefall and the banking sector was close to collapse. It is expected that this study will provide useful insight into improving board decision on their choice of auditor and broaden the extant literature on board characteristics and auditor choice. This will consequently be of immense value to researchers and students that want to undertake research work on board characteristics and auditor choice.

1.6 Plan of the study

Section 2 of this study discusses the relevant literature on the concept of board size, board independence, board diligence and board. The methodology was outlined in Section 3, Section 4 provides the results while Section 5 concludes the study.

2 Literature review

2.1 Conceptual issues

2.1.1 Auditor choice

Auditing services are integral part of array of services offered by a large number of professional accounting firms (Olowookere and Inneh, 2016). The reason why an organisation chooses a specific auditor may be complex and are likely to vary across organisation since benefits of audit services are multifaceted (Knechel, 2002). Fearnley and Beattie (1995) opined that dissatisfaction with audit quality is one of the most common reasons advanced for choosing different auditors. The auditor choice is a decision that involves managers outweighing the marginal benefits and marginal cost, which the hiring of a specific auditor will require.

Wang (2013) argued that there could be a lot of factors that influence companies' choice of auditor such as audit fees, auditor reputation, and industry specialisation of an

auditor, audit opinion and geographical proximity among others. Academic literature has identified high quality auditor and non-high quality auditor as the main distinction between audit firm selections. Accordingly, De Angelo (1981) argued that larger audit firms have less incentives to provide a low quality audit as they earn more client specific quasi-rents due to their larger clientele basis. As a result, larger audit firms are less dependent on one specific client and less eager to make mistakes.

2.1.2 Board size

Board size is the number of directors sitting on the board (Levrau and Berghe, 2007). According to Jensen (1993), the link between the number of board members and the level of conflict is positive. Basiruddin (2011) confirmed that smaller boards are more efficient due to better director-to-staff communication and being easier to manage. On the contrary, McDonald and Westphal (2013) argued that larger boards are capable of giving time and effort to check the management actions. However, Conger and Lawler (2009) are of the opinion that there is no magical or ideal size for a board and the right size should be driven by how effectively the board can operate as a team. The code of corporate governance in Nigeria prescribes a minimum number of 5 and maximum number of 20 directors for banking sector.

Makani et al. (2012) indicated that board size positively affects the demand for higher quality auditors. Similarly, Akhtaruddin et al. (2009) affirmed that larger board with their collective expertise will be more capable of executing their duties and this will influence their choice of auditors. Although, there is no consensus in literature about board size, because a small group can easily reach a conclusion and engage in genuine interaction and arguments for the purpose of achieving objectives of an organisation.

2.1.3 Board independence

Independent directors are persons who have no apparent family ties with those holding power in the company and do not have any affiliation with the top executive (Makani et al., 2012). Previous studies generally posited that board of directors independence from senior management provides, among other things, the most effective monitoring and control of organisation activities. Scarborough et al. (2010) for instance, suggest that independent directors promote board activism because the directors would be able to challenge and criticise the decision of management. There are different views about the relationship between board independence and the choice of a firm's auditor.

Abdullahi et al. (2008) and Mahdavi et al. (2011) were of the opinion that increasing the percentage of independent directors will increase the possibility of selecting a high quality audit firm. In addition, Soliman and Abd El-Salam (2012) and Zengin (2013) opined that board independence has a significant effect on big four auditor choice. However, Makani et al. (2012) argued that board independence has no effect on the choice of high quality auditor.

2.1.4 Board diligence

The diligence of the board includes factors such as the number of board meetings, behaviour of individual board members surrounding such meetings in terms of attentiveness and participation during meetings and post meeting follow-up. However,

the only one of these factors that is directly observable is the number of board meetings. Given the board's oversight of the financial reporting and audit processes, diligence of board is important to ensure effective coverage of and control over the operation in line with best practices. Lipton and Lorsch (1992) provide support that board of directors that meet frequently are more likely to discharge their duties well and this will influence their choice of auditor. More precisely, a board of directors in a company that has more frequent meetings will allow the board members to discuss identified problems thereby leading to superior performance. According to Villiers et al. (2011), the annual meetings frequency of board of directors is positively associated with the engagement of big four audit firms. As such, more diligent boards are likely to support the decision to acquire higher-quality audit services.

2.1.5 Board tenure

Board tenure is the average length of time a director has been on the board. More precisely, it is the sum of the number of years that the director serves on the board divided by the number of directors. Liu and Sun (2010) opined that long tenured directors are effective in order to provide reliable financial reports because of their task knowledge and experience. Related to this, Ruigrok et al. (2006) confirmed that board tenure has positive relationship with financial reporting quality. As such, the choice of auditor might be affected by how long a director has been on the board. Extant literature has also confirmed tenure as one of important personal characteristics which gives rise to distinct patterns of decision makers cognitive process, attention and final decision (Wiersema and Bantel, 1992).

2.2 Theoretical background

Most studies on auditing are based on agency theory owing to its relative importance in explaining the development of audit. This study is hinged on agency theory because it addresses the alignment of interest among shareholders, directors and auditors. Other theory discussed is stakeholders' theory.

2.2.1 Agency theory

Agency theory was developed by Jensen and Meckling (1976) and is usually the starting point for any debate on corporate governance. The separation between owners and managers leads to opportunistic managerial actions and increase agency problems in companies (Fama and Jensen, 1983). According to De Angelo (1981), organisation must deal with a changing amount of agency cost which vary overtime and place thus creating incentive for management to reduce these agency costs by hiring a high quality auditor who provides adequate services for the company's needed level of audit quality.

Auditors are engaged as agents under contracts but they are expected to be independent of the managers who manage the operation of the business. An important assumption within the agency theory is that the auditor is independent and he provides independent opinion which enhances financial reporting. Auditor independence from board of directors is of great importance to shareholders and is seen as a key factor in helping to deliver high quality audit. However, an audit necessitates a close working relationship with the board of directors. Fostering this close relationship will make the

shareholders to question the perceived and actual independence of auditors and demand tougher controls and standards over independence to protect them.

2.2.2 Stakeholder theory

Stakeholder theory was first coined in 1963 by Dr. Edward Freeman in his landmark book *Strategic Management*. Stakeholder theory is a natural extension of the agency theory adopted to fill the gap which identifies shareholders as the only interest group of a corporate entity. It is based on the idea that each stakeholder group has an intrinsic value and no group's interest is more or less important than anyone (Donaldson and Preston, 1995). The theory believes that companies are large and their impact on society being so significant that they cannot just be responsible to their shareholders Thus, there is a greater information demand on the entity and auditor must ensure the representativeness of financial statements (Freeman, 1994; Jones and Wicks, 1999; Donaldson and Preston, 1995). Notably, the choice of high quality auditor is not beneficial only to shareholders but extends to all users of financial statements.

2.3 Empirical evidences

Knechel et al. (2008) examined the determinants of auditor choice by taking a large sample of 2,333 small and medium sized companies in Finland. *Descriptive statistics were used* to analyse the final sample and the study found among others that the choice to hire a certified auditor relates to the level of complexity in the organisation as measured by size and extent of workforce. Lin and Liu (2009) studied the determinants of firm's auditor choice in respect of their corporate governance mechanism in China. Data collected through initial public offerings (IPO) when getting firms listed were analysed *using logistic regression*. The empirical results showed that firms with large controlling shareholders and smaller size of supervisory board are likely to hire a high quality auditor. Cheng and Leung (2011) examined the influence of management demographic characteristics on the choice of auditor. *Using a binary logistic regression model on a large sample of 3,881 between 2001–2005*. Their empirical findings revealed that upper echelon influences corporate governance mechanism through auditor choice. Sharifah et al. (2012) carried out a study on the impact of ethnicity on auditor choice in Malaysia. *Logistic regression technique* was used to analyse data collected from 300 quoted companies. Findings of their study revealed that ethnicity was found to be a significant factor influencing auditor's choice between non-big four and big four audit firms. A similar study was conducted by Zengin (2013) on the association between corporate governance and auditor choice in Turkey. Data obtained from 805 quoted companies were analysed using descriptive and inferential statistics. The study found among others that auditor choice is significantly affected by board composition and ownership structure. Bala and Kumai (2015) conducted a study on the influence of board characteristics on earnings management of listed food and beverages firms in Nigeria *using multiple regression techniques*. The result revealed an inverse relationship among board size, board composition and earnings management. Abdulmalik et al. (2016) used a logistic regression techniques on a sample of 94 quoted non-financial companies in Nigeria to provide empirical evidence on the relationship between political connections of the boards and selection of auditors in Nigeria. Their findings revealed that companies with politically connected board members were unlikely to appoint big four audit firms.

Olowookere and Inneh (2016) assessed the determinants factors affecting auditor choice in quoted manufacturing companies in Nigeria. Data collected from both primary and secondary sources were analysed using logistic regression techniques. The results showed that the two most important factors influencing company's choice of auditor are international coverage and long-term relationship with current auditor. Abu et al. (2016) made use of multiple regression technique on a sample of 15 listed deposit money banks to provide empirical evidence on the influence of board characteristics on the financial performance of listed deposit money banks in Nigeria. The study found among others that foreign directors significantly influenced the performance of deposit money banks. In Ghana, Kukah et al. (2016) conducted a study on the implication of internal corporate governance mechanism, on accounting information quality using a sample of 20 non-financial listed companies. The study employed *panel data model* and the result of fixed and random effect model revealed that board independence and foreign ownership prevent management earnings in the selected companies. Dina (2018) investigated the main audit characteristics that influence the choice of auditor in Saudi Arabian firms. Data collected from 124 quoted firms were analysed using both descriptive and inferential statistics with the aid of *logistic regression techniques*. The results showed that auditor fees, audit firm reputation, geographical proximity and long-term relationship with current auditors have significant influence on auditor choice. Dwekat et al. (2018) examined the impact of corporate governance mechanism on auditor choice in Palestine. A cross-sectional analysis of 48 quoted companies revealed that companies with a high ownership concentration, larger board size and existence of audit committee tend to hire high quality auditors. Yasser (2019) employed primary data on a total of usable 102 questionnaires to provide empirical evidence on financial reporting quality and earnings management in Libyan banks. It was found that weak external auditor and poor corporate governance are among factors accounted for earnings management in Libyan commercial bank.

2.4 Research gap

Most prior studies (e.g., Abdulmalik et al., 2016; Olowookere and Inneh, 2016) on auditor choice in Nigeria have examined determinants such as political connections of board members, international coverage, long-term relationship with current auditor and accounting technical skills. In addition, studies on board characteristics like, Bala and Kumai (2015) and Abu et al. (2016) based their evidence on board size, board independence, foreign director and grey director but failed to consider board tenure as important board characteristics that could impact auditor choice. This study aims at the filling this gap and shedding light on the relationship between auditor choice and tenure of board of director not captured by prior studies.

3 Methodology

3.1 Model specification

The test of association between the explanatory variables and auditor choice is estimated using the following econometric model:

$$AUDC = f(BDS, BDI, BDD, BDT, FSZ, FL)$$

$$AUDC = \beta_0 + \beta_1 BDS_{it} + \beta_2 BDI_{it} + \beta_3 BDD_{it} + \beta_4 BDT_{it} + \beta_5 FSZ_{it} + \beta_6 FL_{it} + \Sigma_{it}$$

where

AUDC auditor choice

BDS board size

BDI board independence

BDD board diligence

BDT board tenure

FSZ firm size

FL financial leverage

β_0 intercept (constant term)

β_1–β_6 estimated parameters

Σ_{it} error term or unexplained variable for bank i in period t.

3.2 Research design

Ex post facto research design was adopted because the study measured the influence of dependent variable on independent variables from already available data and using statistical hypothesis technique. Panel logistic regression model was used as estimation technique on the basis that dependent variable (auditor choice) is categorical.

Table 1 Variable measurements and sources

Variables	*Type*	*Measurements*	*References*
Auditor choice	Dependent	Measured by the size of the audit firm	Suryanto et al. (2017)
Board size	Independent	Measured as the total number of directors sitting on the board of a particular bank	Abu et al. (2016), Bala and Kumai (2015)
Board independence	Independent	Measured as the proportion of non-executive directors on the board	Gambo et al. (2018), Garba and Abubakar (2014)
Board diligence	Independent	Measured as the number of board meetings that occurred during the year	Gambo et al. (2018), Villiers et al. (2011)
Board tenure	Independent	Measured as the sum of number of years that directors serve on the board divided by the number of directors	Mc-Clelland et al. (2012), Ruigrok et al. (2006)
Firm size	Control	Measured as the natural log of total assets	Dwekat et al. (2018), Kajola et al. (2017)
Financial leverage	Control	Measured as the total liabilities divided by total assets	Makani et al. (2012)

3.3 Population and sample size for the study

The population of the study comprised of all 21 deposit money banks listed on the floor of Nigerian Stock Exchange as at 31st December, 2017. Sample sizes of six deposit money banks were selected using purposive sampling technique. The selected deposit money banks are Access Bank Plc, Zenith Bank Plc, United Bank for Africa Plc, Diamond Bank Plc, Guaranty Trust Bank Plc and First Bank of Nigeria Ltd. The rationale for choosing these banks is based on the fact that they are systemic important banks and their financial statements contain relevant information in line with the objectives of the study. In addition, the sample size agrees with Amadi (2005) population proportion of 0.05 as adequate to provide maximum sample size required for generalisation.

3.5 Sources of data

This study used secondary data which was obtained from annual audited reports and accounts of six listed deposit money banks for a period of ten years covering 2008 to 2017 with 60 firm-years observations.

3.6 A priori expectations

The a priori expectations are such that board size, board independence and board diligence are expected to exhibit a positive relationship. However, board tenure is expected to exhibit a negative.

$$\text{AUDC} = \beta_0 + \beta_1\text{BDS} + \beta_2\text{BDI} + \beta_3\text{BDD} + \beta_4\text{BDT} + \beta_5\text{FMS} + \beta_6\text{FL} + \mu$$

Expected sign (+) (+) (+) (–) (+) (–)

4 Data analyses and interpretation of results

4.1 Descriptive analysis

This section presents the description of variables in the form of summary statistics such as mean, standard deviation, minimum and maximum values. Frequency and percentage distributions were conducted for the dependent variable, auditor choice, because it is a categorical variable.

Table 2 presents the distribution of banks' choice of big audit firm in terms of frequency and percentages. The distributions are based on firm-year observations. The results show that the choice of Akintola Williams Delloitte audit firm among banks is only 8.33% (five firm-year observations) while the majority did not choose this audit firm (i.e., 91.65%, representing 55 firm-year observations). As to the choice of PwC audit firm, the result shows that about 56.67% (34 firm-year observations) engaged the service of PwC as their audit firm while 43.33% (26 firm-year observations) chose other big audit firms. KPMG was chosen by about 35% of the banks (21 firm-year observations) while 65% (39 firm-year observations) did not choose KPMG as their preferred audit firm. The result also indicates that none of the banks, for the period under consideration, chose Ernst and Young (EY) audit firm.

Table 2 Frequency and percentage distributions

Auditor choice	*Freq.*	*Percent*	*Cum.*
Delloitte			
No	55	91.67	91.67
Yes	5	8.33	100
Total	60	100	
PwC			
No	26	43.33	43.33
Yes	34	56.67	100
Total	60	100	
KPMG			
No	39	65	65
Yes	21	35	100
Total	60	100	

Source: Author's computations, 2019

Table 3 Summary statistics results

Variable	*Mean*	*Std. dev.*	*Min.*	*Max.*
BDS	15.82	2.66	11	22
BDI	0.54	0.05	0.44	0.73
BDD	27.93	9.88	15	51
BDT	3.43	0.50	2.65	5.16
CSZ	2.04 bn	0.99 bn	0.55 bn	4.83 bn
FL	0.84	0.04	0.73	0.89

Source: Author's computations, 2019

Table 3 shows the results of summary statistics of all firm-year observations consisting the data mean, standard deviation, minimum and maximum values of all variables. The mean value of board size is 15.82. It ranges from 11 to 22 and deviates by 2.66 from the average value. This indicates that the selected deposit money banks have an average number of 16 board members, with a minimum of 11 and maximum of 22 members, respectively. The average value of board independence (BDI) is 0.54 and ranges from 0.44 to 0.73. This implies that non-executive (outside) directors represents 54% while the remaining 46% belongs to the executive directors of the selected deposit money banks. Board diligence shows an average value of 27.93 and ranges from 15 to 51 with a standard deviation of 9.88 implying that on average the number of board meeting held during the period under study was 28 times. The average number of years spent by directors in each of the selected deposit money banks was three years with a minimum number of two and maximum number of five years, respectively. The mean value of firm size (total assets) is 2.04 billion naira while the maximum and minimum are 4.83 billion naira and 0.55 billion naira respectively with a standard deviation of 0.99 billion naira. Financial leverage with a mean value of 0.84 indicates that the results of the findings would have been distorted if it had not been controlled as a variable.

4.2 Inferential analysis

Table 4 presents the panel logit regression results for the selected deposit money banks' choice of auditors among the big four audit firms. The choice is divided into four variables – those that chose Delloitte, PwC, EY and KPMG. These choices are then made in binary variables each to enable a binary logistic method. The results for their choice of auditor are presented above with exception of EY, because none of these banks chose this audit firm over the period in consideration.

Table 4 Panel logistic model results

Variables	*(1)*		*(2)*		*(3)*	
	Delloitte	*p-value*	*PwC*	*p-value*	*KPMG*	*p-value*
E	0.758***	0.006	0.211**	0.044	–0.750**	0.026
	(0.278)		(0.105)		(0.337)	
BDI	–10.71*	0.094	2.498	0.723	21.01	0.458
	(6.401)		(7.048)		(28.29)	
BDD	0.0145	0.830	0.0969	0.226	–0.489	0.125
	(0.0675)		(0.0801)		(0.319)	
BDT	–0.101	0.839	0.0639	0.957	1.239	0.671
	(0.500)		(1.196)		(2.919)	
FL	–25.69**	0.015	0.461	0.975	20.78	0.285
	(10.54)		(14.64)		(19.45)	
FMZ	–1.342	0.109	0.678	0.662	0.185	0.960
	(0.838)		(1.552)		(3.723)	
Constant	30.77**	0.031	–17.35	0.471	–14.07	0.761
	(14.23)		(24.07)		(46.30)	
Observations	60		60		60	
Number of banks	6		6		6	

Note: Robust standard errors in parentheses, ***p < 0.01, **p < 0.05 and *p < 0.1.

Source: Author's computations, 2019

Column 1 reveals that for Delloitte, board size and board diligence have positive coefficients while board independence, board tenure, financial leverage and bank size have negative coefficients. However, only the coefficients of board size, board independence and financial leverage are statistically significant. This indicates that only board size, board independence and financial leverage have statistically significant impact on the likelihood that deposit money banks would prefer Delloite as their audit firm over others. The positive coefficient of board size implies that increase in board size would increase the likelihood that the selected DMBs would choose Delloitte over others. On the other hand, the negative coefficient of board independence indicates that increase in the proportion of outside directors would cause a decline in the likelihood that DMBs would choose Delloite over others. Also, the negative coefficient of financial leverage indicates that increase in financial leverage would cause a decline in the probability that DMBs would choose Delloite over others.

In the result for PwC in column 2, board size, board independence, board diligence, board tenure, financial leverage and bank size have positive coefficients. However, only the coefficient of board size is statistically significant. This indicates that only board size has statistically significant impact on the likelihood that deposit money banks would choose PwC as their audit firm over others. The positive coefficient of board size implies that increase in board size would increase the likelihood that DMBs would choose PwC over others.

In the result for KPMG in column 3, board size and board diligence have negative coefficients while board independence, board tenure, financial leverage and bank size have positive coefficients. However, only the coefficient of board size is statistically significant. This indicates that only board size has statistically significant impact on the likelihood that deposit money banks would choose KPMG as their audit firm over others. The positive coefficient of board size implies that increase in board size would decrease the likelihood that DMBs would choose KPMG over others

4.3 Discussion of findings

4.3.1 Board size

The positive coefficients of board size for both Delloitte and PwC are an indication that the number of board members in the selected DMBs determines their choice of high quality auditor. The implication of these results are that larger board size comprised of people with diverse background and thus support the idea of engaging high quality auditor. It agrees with agency theory that proposes that larger board size improve monitoring function of the board and consequently the preference for one of big four audit firm. This result conforms to the studies of Makani et al. (2012) and Quick et al. (2018). On the contrary, the result revealed that the choice of KPMG was based on smaller board members. This is also consistent with the finding of Basiruddin (2011) and stakeholder theory that support smaller board size and argued that larger boards are suboptimal with its associated free-rider problem.

4.3.2 Board independence

The negative coefficient of board independence and the choice of Delloitte as a bank auditor implies that the non-executive directors in the selected DMBs would prefer medium sized audit firm over one of big four. This suggests that non-executive directors have limited contact with the firm's day-to-day activities and this often reduce their operational efficiency. The negative result corroborates the finding of Ben-Hassoun et al. (2018) and contradicts the positive findings by Eniola and Ajayi (2018). Dwekat et al. (2018) however found no significant relationship between board independence and auditor choice.

4.3.3 Financial leverage

Financial leverage exhibited a negative and significant relationship with the choice of Delloitte. The implication of this result is that selected DMBs with high leverage would engage non-big four audit firm as their auditor. Leverage is a measure of financial risk and increase the potential to scale-up losses. As such banks with higher leverage have higher firm risk and are less likely to appoint high quality auditor. This result is

consistent with the work of Dwekat et al. (2018) but however contradict with the findings of Broye and Well (2008) and *agency theory which supports positive relationship between leverage and performance*. Others variables such as board tenure, board diligence and bank size revealed insignificant relationship with auditor choice. This implies that these variables are not important in the choice of a bank auditor.

5 Conclusions and recommendations

The importance of board characteristics in the selection of a company's auditor cannot be over-emphasised giving its role in enhancing the quality of financial reports. This study investigates how certain board characteristics affect the selection of auditors by deposit money banks in Nigeria. In achieving this, the study proposed three hypotheses which were tested through collection of data on variables that have relationship with auditor choice. The results of findings were mixed, while the choice of Delloitte is in favour of larger board size, for KPMG the selection is based on smaller number of board members. Based on these findings, the study concludes that board size, board independence and financial leverage are important factors in determining the choice of auditor by deposit money banks in Nigeria. In the light of the above, the study recommends the following:

1 The code of corporate governance prescribing the minimum and maximum number of board members in the banking sector should be enforced. The mixed result reported could have been as a result of different number of board members in Nigeria deposit money banks. It is also important that board members are proactive in their choice of auditor and evaluate the quality of audit firm before selection.

2 Independent directors should be allowed to take active part in the day-to-day activities of the organisation to boost their operational efficiency. It has been observed that most independent directors operate on part-time basis which makes it difficult to access high quality services by big four audit firm.

3 Nigerian deposit money banks should reduce their level of leverage to guarantee sound and healthier operation. It is important that board understand the side-effect of leverage and comes up with better way of finance to increase their chances of engaging one of big four auditor.

References

Abdullahi, W., Ismail, S. and Jamaluddin, N. (2008) 'The impact of board composition, ownership and CEO duality on audit quality. The Malaysian evidence', *Malaysian Accounting Review*, Vol. 7, No. 2, pp.17–28.

Abdulmalik, O.S., Shittu, I. and Ahmad, A.C. (2016) 'Political connections of board and the selection of auditors in Nigeria', *International Journal of Economics and Financial Issues*, Vol. 6, No. 4, pp.104–110.

Abdulmalik, O.S., Shittu, I. and Ahmad, A.C. (2016) 'Political connections of board and the selection of auditors in Nigeria', *International Journal of Economics and Financial Issues*, Vol. 6, No. 4, pp.104–110.

Abu, S.O., Okpeh, A.J. and Okpe, U.J. (2016) 'Board characteristics and financial performance deposit money banks in Nigeria', *International Journal of Business and Social Sciences*, Vol. 7, No. 9, pp.159–171.

Akhtaruddin, M., Hossain, M.A., Hossain, M. and Yao, L. (2009) 'Corporate governance and voluntary disclosure in corporate annual reports of Malaysian listed firms', *Journal of Applied Management Accounting Research*, Vol. 7, No. 1, pp.1–20.

Amadi, V.L. (2005) 'An investigation into the role of private sector in Nigeria higher institution: a study of University of Abuja', *International Journal of Research in Education*, Vol. 2, No. 3, pp.151–160.

Bala, H. and Kumai, G.B. (2015) 'Board characteristics and earnings management of listed food and beverages firms in Nigeria', *European Journal of Accounting, Auditing and Finance Research*, Vol. 3, No. 8, pp.25–41.

Basiruddin, R. (2011) *The Relationship Between Governance Practice, Audit Quality and Earnings Management. UK Evidence*, PhD theses, Durham University.

Ben-Hassoun, A., Aloui, C. and Ben-Nasir, H. (2018) 'Demand for audit quality in a newly privatized firms in MENA region: role of internal corporate mechanism audit', *Research in International Business and Finance*, Vol. 45, No. C, pp.323–333.

Broye, G. and Well, L. (2008) 'Does leverage influence auditor choice? A cross-country analysis', *Applied Financial Economics*, Vol. 18, No. 9, pp.715–731.

Cheng, T.W. and Leung, T.Y. (2011) 'Management demographic and auditor choice: the case of China', *International Review of Accounting, Banking and Finance*, Vol. 3, No. 2, pp.104–121.

Choi, J. and Wong, H. (2007) 'Auditors' governance functions and legal environment: an international investigation', *Contemporary Accounting Research*, Vol. 24, No. 1, pp.13–46.

Conger, J. and Lawler, E.E. (2009) *Sharing Leadership on Corporate Boards. A Critical Requirement for Teamwork at the Top*, SSRN E-library, DOI: 10.2139/ssrn.1313353, Corpus ID: 183822404 [online] http//ssrn.com/paper (accessed 28 July 2020).

Conger, J., Lawler III, E. and Finegold, D. (2001) 'Building a better board', *Journal of Business Strategy*, Vol. 22, No. 6, pp.33–37.

De Angelo, L.E. (1981) 'Auditor size and audit quality', *Journal of Accounting and Economics*, Vol. 3, No. 3, pp.183–199.

Dina, S.F. (2018) 'Determinants of auditor choice in emerging markets: evidence from Saudi Arabia', *The Business and Management Review*, Vol. 9, No. 3, pp.63–70.

Donaldson, T. and Preston, L.E. (1995) 'The stakeholder theory of corporation, concepts, evidence and implications', *Academy of Management Review*, Vol. 20, No. 1, pp.65–91.

Dwekat, A., Mardawi, Z. and Abdeljawad, I. (2018) 'Corporate governance and auditor choice: evidence from Palestine corporations', *International Journal of Economics and Financial Issues*, Vol. 8, No. 2, pp.47–54.

Eniola, J.O. and Ajayi, C.O. (2018) *Determinants of Auditor Choice in Manufacturing Firms in Nigeria*, International Accounting and Taxation Research Group, Faculty of Management Sciences, University of Benin, Benin City, Nigeria.

Fama, E.F. and Jensen, M.C. (1983) 'Agency problem and residual claims', *Journal of Law and Economics*, Vol. 26, No. 3, pp.301–325.

Fan, J.P. and Wong, T.J. (2005) 'Do external auditors perform a corporate role in emerging market? Evidence from East Asia', *Journal of Accounting Research*, Vol. 43, No. 1, pp.35–72.

Fearnley, S. and Beattie, V. (1995) 'The importance of audit firm characteristics and drivers of auditor change in UK listed companies', *Accounting and Business Research*, Vol. 25, No. 100, pp.227–239.

Francis, J. and Wilson, E. (1988) 'Auditor changes: a joint test of theories relating to agency costs and auditor differentiation', *The Accounting Review*, Vol. 63, No. 4, pp.663–668.

Francis, J.R. (2004) 'What do we know about audit quality?', *The British Accounting Review*, Vol. 36, No. 4, pp.345–368.

Freeman, R.E. (1994) 'The politics of stakeholder theory in business ethics', *Quarterly*, Vol. 4, No. 4, pp.409–421.

Gambo, E.J., Bello, B.A. and Rimamshung, S.A. (2018) 'Effect of board size, board composition and board meetings on financial performance of listed consumer goods companies in Nigeria', *International Business Research*, Vol. 11, No. 6, pp.1–10.

Garba, T. and Abubakar, B.A. (2014) 'Corporate board diversity and financial performance of insurance companies in Nigeria: an application of panel data approach', *Asian Economic and Financial Review*, Vol. 42, No. 2, pp.252–277.

Jensen, M.C. (1993) 'The modern industrial revolution, exist, and the failure of internal control systems', *Journal of Finance*, Vol. 43, No. 3, pp.831–880.

Jensen, M.C. and Meckling, W.H. (1976) 'Theory of the firm: managerial behavior agency costs and ownership structure', *Journal of Financial Economics*, Vol. 3, No. 4, pp.305–360.

Jones, T.M. and Wicks, A.C. (1999) 'Convergent stakeholder theory', *The Academy of Management Review*, Vol. 24, No. 2, pp.206–221.

Kajola, S.O., Onaolapo, A.A. and Adelowotan, M.O. (2017) 'The effect of corporate board size on financial performance of Nigeria listed firms', *Nigerian Journal of Management Sciences*, Vol. 6, No. 1, pp.204–213.

Keil, G.C. and Nicholson, G.J. (2003) 'Board composition and corporate performance: how the Australian experience informs contrasting theories of corporate governance', *An International Review*, Vol. 11, No. 3, pp.189–205.

Knechel, W.R. (2002) 'The role of independent accountant in effective risk management', *Review of Business and Economic Literature*, Vol. 47, No. 1, pp.65–85.

Knechel, W.R., Niemi, L. and Sundgren, S. (2008) 'Determinants of auditor: evidence from a small client market', *International Journal of Auditing*, Vol. 12, No. 1, pp.65–88.

Kukah, M.A., Amidu, M. and Abor, J.Y. (2016) 'Corporate governance mechanisms and accounting information quality of listed firms in Ghana', *African Journal of Accounting, Auditing and Finance*, Vol. 5, No. 1, pp.38–58.

Levrau, A. and Berghe, L.V.D. (2007) *Corporate Governance and Board Effectiveness: Beyond Formalism*, Working paper, Faculty of Economics and Business Administration, Ghent University.

Lin, Z.J. and Liu, M. (2009) 'The impact of corporate governance on auditor choice: evidence from China', *Journal of International Accounting, Auditing and Taxation*, Vol. 18, No. 1, pp.44–49.

Lipton, M. and Lorsch, J.W. (1992) 'A modest proposal for improved corporate governance', *The Business Lawyer*, Vol. 48, No. 1, pp.59–72.

Liu, G. and Sun, J. (2010) 'Director tenure and independent committee effectiveness', *International Research Journal of Finance and Economics*, No. 51, pp.176–189.

Mahdavi, G., Maharlouie, M., Ebrahim, F. and Sarikhani, M. (2011) 'The impact of corporate governance on auditor choice', *International Research Journal of Finance and Economics*, No. 68, pp.129–139.

Makani, I., Kolsi, M. and Affes, H. (2012) 'The impact of corporate governance mechanism on audit quality. Evidence from Tunisia', *The IUP Journal of Corporate Governance*, Vol. 4, No. 3, pp.48–70.

Mansi, S.A., Maxwell, W.F. and Miller, D.P. (2004) 'Does auditor quality and tenure matter to investors? Evidence from the bond market', *Journal of Accounting Research*, Vol. 42, No. 4, pp.755–793.

Mantonti, G., Tucker, J. and Tommasetti, A. (2016) 'Auditor choice in Italian non-listed firms', *Management Auditing Journal*, Vol. 31, No. 4, pp.458–491.

Mc-Clelland, P., Baker, V. and Oh, W. (2012) 'CEO's career horizon and tenure: future performance implications under different contingencies', *Journal of Business Research*, Vol. 65, No. 9, pp.1387–1393.

McDonald, M.L. and Westphal, J.D. (2013) 'Access denied: low monitoring of women and minority first-time directors and its negative effects on appointment to additional boards', *Academy of Management Journal*, Vol. 56, No. 4, pp.1169–1198.

Ojo, O. (2009) 'Impact assessment of corporate culture on employee job performance', *Business Intelligence Journal*, Vol. 2, No. 2, pp.388–397.

Olowookere, J.K. and Inneh, G.E. (2016) 'Determinants of auditor choice in Nigeria quoted manufacturing companies', *Research Journal of Finance and Accounting*, Vol. 7, No. 6, pp.49–57.

Quick, R., Schenk, N., Schmidt, F. and Towara, T. (2018) 'The impact of corporate governance on auditor choice: evidence from Germany', *Journal of Management and Governance*, Vol. 22, No. 2, pp.251–283.

Revier, E. and Schroe, R. (2010) *Determinants of Auditor Choice*, Master thesis, Faculty of Economics, Ghent University.

Ruigrok, W., Peck, S.I. and Keller, H. (2006) 'Board characteristics and involvement in strategic decision making: evidence from Swiss companies', *Journal of Management Studies*, Vol. 43, No. 5, pp.1201–1226.

Scarborough, S., Haynie, J.J. and Shook, C. (2010) 'Board composition, process and activism: evidence with American firms', *Management and Marketing*, Vol. 5, No. 1, pp.3–18.

Sharifah, N.F., Malcolm, S. and Zubaidah, I. (2012) 'The impact of ethnicity on auditor choice: Malaysian evidence', *Asian Review of Accounting*, Vol. 20, No. 3, pp.196–221.

Sijie, L.I. (2013) *The Influence of Auditor Choice on Cost of Debt Capital for Listed Companies*, Master thesis, Oulu Business School, University of Oulu.

Simunic, D.A.Y. and Stein, M. (1987) *Product Differentiation in Auditing: A Study of Auditor Choice in the Market for New Issues, Monograph*, Vol. 13, Canadian Certified General Accounts Research Foundation, Canada.

Soliman, M. and Abd El-Salam, M. (2012) 'Corporate governance practice and audit quality: an empirical study of the listed companies in Egypt', *International Journal of Social, Behavioural, Educational, Economics, Business and Industrial Engineering*, Vol. 6, No. 11, pp.1292–1297.

Suryanto, T., Thalassinos, J.E. and Thalassinos, I.E. (2017) 'Board characteristics, audit committee and audit quality: the case of Indonesia', *International Journal of Economic and Business Administration*, Vol. 1, No. 3, pp.44–57.

Villiers, C., Naiker, V. and Staden, C.J. (2011) 'The effect of board characteristics on firm environmental performance', *Journal of Management*, Vol. 37, No. 6, pp.1636–1663.

Wang, Y. (2013) *Evidence on the Choice of External Audit Firms by Chinese Companies*, Master thesis, Tilburg University, School of Economics and Management, pp.1–35.

Wiersema, M.F. and Bantel, K.A. (1992) 'Top management team demography and corporate strategic change', *Academy of Management Journal*, Vol. 35, No. 1, pp.91–121.

Yasser, B. (2019) 'Financial reporting quality and earnings management in Libyan banks: stakeholder perceptions', *African Journal of Accounting, Auditing and Finance*, Vol. 6, No. 3, pp.177–200.

Zengin, Y. (2013) 'Is corporate governance a determinant of auditor choice? Evidence from Turkey', *EGE Academic Review*, Vol. 13, No. 2, pp.273–284.