

# Board Diversity and Financial Reporting quality of listed deposit money banks in Nigeria

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## Abstract

**Purpose:** The corporate environment in Nigeria is believed to have experienced cases of earnings manipulations which have brought doubt to the credibility of financial reporting resulting in corporate failure. These have attracted the attention of practitioners, regulators, researchers and other stakeholders in getting possible solutions to poor quality of financial reporting in corporate businesses. Therefore, the purpose of the study is to investigate the effect of board diversity on financial reporting quality of listed Deposit Money Banks (DMBs) in Nigeria.

**Methodology:** The study uses panel data regression technique for data analysis. Data was obtained from the audited annual reports and accounts of the banks over the period 2006 - 2017. Robustness tests such as normality test of standard error, multicollinearity and heteroscedasticity tests were carried out to validate the results.

**Findings:** The study found that board remuneration, percentage of women board members and audit committee gender have significant positive effect on financial reporting quality implying lower earnings management. Also, board experience and board reputation have negative but weak effect on financial reporting quality. However, board ownership has a positive and significant effect on earnings management but board nationality and board age have positive but insignificant effect on financial reporting quality of banks. The two control variables (financial performance and leverage have significant negative influence in curtailing managers' opportunistic tendencies.

**Policy Implications:** The findings have important policy implication for the Central Bank of Nigeria (CBN) which is striving to improve transparency and quality of financial reporting in the financial sector. It also have policy implication which enables the CBN and the DMBs to reap the benefit of having a well re-structured, re-composed, re-organized and diversified board along the findings of the study.

**Originality:** The originality of study is in the use of comprehensive lists of board characteristics in the Nigerian banking sector. The study originality is also in the use of the entire population of the listed DMBs giving it a wider coverage and therefore more generalizable.

**Keywords:** Financial Reporting Quality, Echelon Theory, Gender Diversity, Board Experience and Board Reputation

## 1. Introduction

The need for financial reporting free of misstatement has occupied much of the discussion in literature of accounting and finance (Farouk, 2018, Shehu, 2012). This is as a result of financial scandals and collapse of giant multinational firms around the world such as Enron, WorldCom, Parmalat and Cardbury in Nigeria, among others. These have drawn the attention of regulators, policy makers, researchers and other stakeholders in

propelling the need for good corporate governance practice in developed and developing economy (Farouk, 2018). These corporate failures have led to international efforts towards adopting dynamism in corporate governance practice to mitigate opportunistic tendencies of managers that have weakened investors' and potential investors' confidence in companies' accounting information (Oba, 2014).

Corporations in Nigeria have also been found wanting on their pervasiveness towards manipulative accounting practice. Examples of these corporations are defunct Oceanic Bank Plc, Afribank Plc and Intercontinental Bank Plc. These have generally brought doubt to the credibility of financial reporting of listed companies in Nigeria. The perpetration of this act is to attract unsuspecting investors, or to obtain undeserved accounting-based rewards through the presentation of an exaggerated, misleading or deceptive state of bank financial affairs (Farouk, 2018). Therefore, it has become imperative to ascertain dynamics that could help increase the level of financial reporting quality through reduced earnings manipulations, particularly in the banking sector which serves as one of the pivots of the Nigerian Economy.

The inconsistency in regulation and the available choices to managers' in accounting policies have given room for exercise of judgments in preparing financial statements. Despite existence of accounting standards, it is difficult to have an accounting system that is totally rule-based without room for occasional judgment (Bello, 2002). Hence, efforts need to be made through research to ascertain factors that could help ensure reduction in the level of discretion by managers' when they prepare financial statements in order to guarantee quality financial reporting. Studies have shown that good corporate governance through diversity of the board reduces opportunistic tendencies of managers (Farouk, 2018, Isa & Farouk, 2018, Arun, Almahrog & Aribi, 2015).

The financial stability, quality of financial reports and continuity of bank have been a source of worry to investors, regulators, policy makers and researchers. Therefore, the banks survival and presentation of quality financial information could be linked to the qualities, strength, independence, dynamism and the degree of involvement of the board of directors in bank's affairs (Farouk, 2018 and Farouk & Shehu, 2014). Diversity of the board is seen as the variation of age, race, ethnicity, gender, and social/cultural identities among employees within a specific corporation (Marimuthu, 2008). Previous studies have examined some specific board diversity variables which have influence on financial reporting quality. This study is, however, unique because variables such as board ownership, board nationality, board remuneration, board experience, board reputation, board age and women board members and audit committee gender are examined against financial reporting quality of banks. Most studies such as Luo, Xiang and Huang (2017), Affan, Rosidi and Purwanti (2017) and Klai and Omri (2011) concentrated only on non-financial sector because of the peculiarity of the financial sector in measuring financial reporting quality.

Furthermore, studies of this nature were mostly conducted in developed countries, however, the few conducted in Nigeria either combine both financial and non-financial sectors together using a single model which may not be applicable to banking sector. For example, Oba's (2014) sample consists of 69 out of 219 companies listed in Nigeria Stock Exchange and used Dechow and Dichev (2002) model to measure financial reporting quality of the selected firms. The model used is not applicable to financial sector and as

such the findings, conclusions and recommendations from the study may not be appropriate. This is due to the use of wrong model to measure financial reporting quality of financial service firms which may have been included in the sample. Therefore, this study attempts to bridge the gap by investigating only the financial sector which is a vibrant sector of Nigeria's economy.

The rest of the paper is organized as follows. Section 2 discussed the prior literature and develop hypotheses. Methodology adopted is discussed in Section 3 and is followed by the presentation and discussion of the results in Section 4. The paper ends with conclusion and recommendations from the findings in Section 5.

## **2. Literature Review and Hypotheses Development**

### **2.1 Theoretical Framework**

It is an acknowledged that the principal-agent theory is generally considered the starting point for any debate on the issue of corporate governance. Corporate monitoring by diverse board are expected to constrain managers' behaviour because the board may force managers to focus more on corporate performance and less on opportunistic or self-serving behaviour. It is therefore, assumed that if board diversity enhances monitoring, it can be associated with lower use of discretionary loan loss provision in the banks.

Jensen and Meckling (1976) argued that agency relationship take place when the principals engage the agents to perform some of their duties on their behalf. Hence, an agency cost arises due to conflicting interests of the managers and owners. Consequently, agency theory views board of directors in corporations as an agent of the owners. Therefore, it is expected that the board of directors will act in the best interest of the owners. In acting for the best interest of the owners, the board will mitigate the opportunistic tendencies of the managers because the advocates of the agency theory view the managers (directors) as an economic institution that will mitigate problems and serve as guardian to the shareholders (Hermalin & Weisbach, 2003). When the board is well characterized through the number of members on board and its composition, their diversity is expected to prevent the managers from embarking on earnings manipulation. In addition to the separation of ownership and control, resources based theory as developed by Warnerfelt (1984) introduces accessibility to resources. This has critical dimension to the debate on corporate governance. Also, the theory asserts that firm often tends to decrease the ambiguity of outside influences by guaranteeing that resources are available for their survival and development. By implication, this theory may seem to suggest that separation between executive and non-executive directors is actually irrelevant but rather support strength in diversity. Hence, this theory shows that the strength of a corporate organization lies in the amount of relevant information it has at its disposal.

In the light of the above explanation, it can be argued that board diversity particularly the board nationality and board ownership seeks to protect the interest of all stakeholders of a firm. From the resource dependency perspective, qualified and skilful board members can be considered as a strategic resource to provide a strategic linkage to different external resources (Amit & Schoemaker (1998). Another important theory to underpin this study is the upper echelon theory.

Upper echelon theory suggests that organizations wishing to attract, retain and benefit from diverse talents should increase the diversity of their senior management

(Gelfand, Nishii, Raver, & Schneider, 2004). They concluded that, doing so does help, not only because of the signal that it sends to diverse employees about their advancement potential, but because a diverse senior management team is more likely to be sensitive to the issues that may affect the owners of the business. Thus, organizations with more diverse senior managers are expected to reduce the level of earnings management, thereby enhancing the financial reporting quality. Also, there is the notion that the characteristics of senior management or the upper echelon of an organization can influence the decisions made and practices adopted by an organization (Hambrick & Mason, 1984). In view of this above, this study adopts the upper echelon theory to underpin the relationship between board of directors, gender diversity and financial reporting quality. It is worthy to note that the upper echelon theory perfectly anchors board remuneration, board experience, board reputation, women board members and audit committee gender as drivers of financial reporting quality.

## **2.2 Prior studies and hypotheses development**

### *Board ownership:*

From perspective of interest held by directors in their organisation, there are two conflicting opinion. First, is the alignment of interest hypothesis which argues that increase in managers' ownership stake in a firm reduces the agency conflict between shareholders and managers (Jensen & Meckling, 1976). Therefore it could be expected that, this may reduce the scope for opportunistic behavior on the part of managers. For example, Mahboub (2017) and Adebisi and Olowookere (2016) examine the effect of ownership structure on quality of financial reporting of 22 Lebanese banks and Nigerian Deposit Money Banks respectively. They found that increase in ownership structure and managerial ownership positively affects financial reporting quality of banks. Also, Parveen, Malik, Mahmood and Ali Jan (2016) and Swai and Mbogela (2016) uses data from Pakistan and East Africa and found that director ownership negatively and significantly influence the tendencies of manipulative activities of the managers.

Second, is the entrenchment hypothesis which states that ownership stakes beyond a certain level could put managers in a dominant position and they can use it to exploit external minority shareholder. To support this argument, studies such as Ogbonnaya, Ekwe and Ihendinihu (2016) in Nigeria and Mustafa, Mehmet and Suleyman (2014) in Turkey documented that managerial ownership have positive significant effects on earnings management. They concluded that managerial ownership of firms does not mitigate the managers' opportunistic behavior. Based on these arguments, the study hypothesizes that:

**H<sub>1</sub>:** *Board ownership has a significant influence on financial reporting quality of banks*

### *Board nationality*

Foreign directors could be regarded as long-standing investors, this make them to have greater incentives to monitor the managers to protect their hard earned investment. The monitoring task exhibited by foreign directors is expected to curtail the opportunistic tendencies of managers towards discretionary choices. The findings of Xingqiang, Wei and Shaojuan (2017) documented that earnings management is negative and significant with the presence and ratio of foreign directors on China's corporate boards. Similarly, Makhoul, Al-Sufy and Almubaideen (2018) in their study, the results indicate that

nationality diversity is significantly positively correlated with accounting conservatism. However, there are studies that have documented contrary findings such as Van der Zwet (2015) and Van der Berg (2015) that examined the effect of board diversity on earnings management in U.S and U.K respectively. Also, Isa and Farouk (2018) in their findings revealed that, all board nationality has significant positive effect on earnings management of banks for both low and high leveraged banks. Their results did not support the hypothesis that firms with more foreign nationality on boards of firms have lower levels of earnings management. Thus, despite these findings, the study lay credence to earlier argument and hypothesizes that:

**H<sub>2</sub>:** *Board nationality significantly influences financial reporting quality of banks*

#### *Board remuneration*

Remuneration of the board of directors of firm may have a significant effect on their financial reporting quality. However, there are two opposing questions about board remuneration. First, is a question on whether board remuneration influences financial reporting quality? Therefore, the focus of this study is on the belief that when board of directors are paid high, there will not be need for them to engage in earnings manipulation to get higher pay since their pay is not tied to performance. To support this stand, Hassen (2014) and Gong and Li (2007) found that total compensation and outside directors' equity-based compensation was negatively related to the earnings management. The second question is whether it is financial reporting quality that drives board remuneration? This implies that if their remuneration is tied to presentation and preparation of quality financial reporting, then, financial reporting quality will influence board remuneration. In agreement with this is a study by Wangaruro (2014) who found that executive compensation has positive and significant effect on earnings management of commercial banks in Kenya. Also, Gao and Shrieves (2002) found that executive compensation, the amounts of stock options, bonuses and the incentive intensity of stock options were positively related to earnings management, whereas salaries are negatively related. It is based on these arguments that this study hypothesizes that:

**H<sub>3</sub>:** *Board remuneration significantly influences financial reporting quality of banks*

#### *Board Experience:*

There is an established link between financial reporting quality and board experience as the longer the tenure of board of directors, it increases their monitoring effectiveness on the activities of management. Abdelsalam and Street (2007) and Ebimobowei, and Yadirichukwu (2013) argued that long serving directors utilizes their expertise to effectively monitor management by ensuring quality accounting information. Their study found a significant and positive relationship between board experience and length of service by executive directors on financial reporting timeliness. Also, Chi-Chi and Friday (2016) found that board experience has positive impact on the financial reporting quality measured by the discretionary accruals of firm. On the other hand, Sengupta (2004) stated that length of engagement by directors may influence them to delay accounting information disclosure. Therefore, this study hypothesizes that:

**H<sub>4</sub>: Board experience significantly influences financial reporting quality of banks**

*Board reputation:*

Reputable directors with national honours such as Grand Commander of the Order of the Federal Republic (GCFR), Grand Commander of the Order of the Niger (GCON), Commander of the Order of the Federal Republic (CFR), Commander of the Order of the Niger (CON), Officer of the Order of the Federal Republic (OFR), Officer of the Order of the Niger (OON), Member of the Order of the Federal Republic (MFR), Member of the Order of the Niger (MON) not only have the experience and knowledge needed to monitor effectively, but may also have strong incentives to ensure high quality monitoring because they are protecting their names and integrity build overtime, therefore ensuring high reporting quality (Segal, 2015). Segal (2015) argued that a negative causal effect is expected if reputable directors are ineffective monitors because they are too busy, whereas a positive causal effect is expected if reputable directors are more experienced and subject to significant reputation penalties in the case of a financial reporting failure. In his study, it was documented that reputation has a positive causal effect on monitoring and results in higher quality financial reporting. Therefore, this study hypothesizes that:

**H<sub>5</sub>: Board reputation significantly influences financial reporting quality of banks**

*Board age:*

The experience of the directors can also be obtained from their age which is regarded as the main factor that is associated with more experience. The age of directors is expected to be brought to bear in terms of decisions making and providing management with guide in respect to their life experiences. In support of this, study by Gilpatrik (2000) establishes that the board of directors incorporates retiree's directors who had previously served as executive's directors at companies in the same sector. Also, Huse and Rindova (2001) highlight the significance of having a board of directors with heterogeneous ages in order to ensure the different views and ensure the alignment of directors with different stakeholders in society. To this end the study hypothesizes that:

**H<sub>6</sub>: Board age significantly influences financial reporting quality of banks**

*Women board members:*

Studies on gender diversity have identified three explanations as to why gender diversity enhances financial reporting quality of firms (Gul, Srinidhi & Ng 2011). The first explanation is that female participation on board enhances the structure of the board and improves their skills and efficiency in mitigating managers' opportunistic tendencies. A board with diverse expertise does have comprehensive and strategic opinions for action and broader assessment in decision making (Srinidhi, Gul & Tsui, 2011). Therefore, female representation on board is expected to usher in diverse proficiencies that will deepen board deliberations and thereby increase the quality of their decisions (Hillma, Shropshire & Cannella, 2007). Precisely, works on organization theory advocate that female involvement ease deliberation of resilient issues and hence stimulates communications of the board (Huse & Solberg, 2007 and Joy, 2008).

Second, Adams and Ferreira (2009) found that female directors have better board attendance records than their male counterparts and the females are more likely to join monitoring committees. Therefore, female board membership improves a board's monitoring abilities and effectiveness. In addition, previous studies, it was opined that female board members are more inclined to act and reason more independently than their male board members (Adams, Gray & Nowland, 2010). Therefore, female board members as monitors can help boards to better mitigate earnings management and thus improve financial reporting quality of firm.

On a final note, female board members are likely to show less tolerance for managers' manipulative accounting practice because of their quest for a higher earnings quality from managers. Several studies gave evidence that women are usually more risk averse, less overconfident and less tolerant of opportunistic behavior than men. For example, Luo, Xiang and Huang (2017) examine the effect of female directors on real activities manipulation of Companies in China. The study found that higher female participation on board of directors is associated with lower levels of real activities manipulation. Also, Mason and Mudrack (1996) in their study revealed that men yearning for increased earnings and aiming business accomplishment have more likelihood to violate the law to reach enviable success than their female counterparts; hence, women are less likely to contravene business ethics. In summary, the study predicts that banks with female board members experience high quality of reported earnings. Therefore, the study hypothesizes that:

**H<sub>7</sub>:** *Female board members significantly influence financial reporting quality of banks*

*Audit committee gender:*

Audit committee has been identified in corporate governance as core to financial reporting quality. Therefore, board of directors is expected to establish audit committees, made up of six members both from the non-executive and outside members (shareholders). Therefore just like the argument in respect of women directors, same hold for female in audit committee as the committee basic functions are to oversee the financial reporting process. Having women on the committee may help increase the monitoring and hence mitigates the managers' tendencies to manipulative accounting earnings. For example, Xi'an and Xi'an (2012) found that audit committee gender has a negative and significant effect on earnings management of firms. Also, Peni and Vahamaa (2010) provide considerable evidence that female chief financial officers are associated with income-decreasing discretionary accruals, thereby suggesting that they follow more conservative earnings management strategies. This implies that higher number of female on audit committee increases the quality of financial reporting. Contrary to this finding, Ioualalen, Khemakhem and Fontaine (2015) documented that audit committee diversity did not have any significant impact on earnings management of selected Canadian firms. Following this opposing arguments, the study hypothesizes that:

**H<sub>8</sub>:** *Presence of female in audit committee significantly influences financial reporting quality of banks*

### 3. Methodology

The study adopts quantitative approach; it also aligns itself with the positivist paradigm because it is dependent on quantifiable observations that lead to statistical analysis to establish “what is” without any form of human interaction within the study. The study population covers fourteen (14) Deposit Money Banks listed on the Nigerian Stock Exchange between 31st December, 2006 and 31st December, 2017. All the fourteen banks were used for the analysis adopting census approach. Secondary source of data was used and data was extracted from the Published Audited Annual Reports and Accounts of the banks from 2006 - 2017. Selection of this period is considered imperative because the period under review has witnessed and continues to attract clamour for operational board dynamism, sound and credible financial reporting. Ordinary Least Square was adopted for the study. Descriptive statistics, correlation matrix and regression were estimated for purpose of analysis.

#### **Model Specification**

The study adopts Chang, Shen and Fang (2008) model to proxy financial reporting quality. The choice of the model is its suitability and applicability in the financial sector as highlighted below. The residual from this model is used to represent earnings management in the second regression. The model is presented below.

$$DLLP_i / TA_{t-1} = LLP_{it}/TA_{t-1} - \{\alpha_0 1/TA_{t-1} + \alpha_1 LCO_i/TA_{t-1} + \alpha_2 BBAL_i/TA_{t-1}\} \dots \dots \dots \text{Model 1}$$

**Where** DLLP = Discretionary loan loss provision, LLP = Loan loss provision, LCO = Loan Charge-off, BBAL = Beginning Balance of loan loss,  $TA_{t-1}$  = Lagged Total Assets and  $\alpha_0$  = Constant.

The intuition underlying the choice of these variables is that “in practice, most bank managers decide the amount of loan loss provisions every month according to individual risk assessment on potential uncollectible loans and loans write-offs”. Since discretionary accruals cannot be observed directly, it is estimated by regressing loan loss provision on the independent variables.

The equation above forms the final parsimonious model of the study using balanced panel multiple regression. It has been posited in extant literature that there are firm characteristics that influence the degree of earnings management by firms. Therefore, there is need to control for it in the estimations of discretionary accruals. Scholars have advanced argument from diverse viewpoint that firm’s financial performance whether positive or negative gives managers incentive to manage earnings. This may be in order to avoid heavy tax or have access to loan (Farouk, 2014). If not controlled for, it may affect the level of earnings manipulation if tests in relation to accounting discretion are often mis-specified if not controlled for using performance (Roodposhti, Haybati, Talebnia & Chasmi, 2012 and Kothari, Leone & Wasley, 2002).

In addition, a study by Wasimullah et al. (2010) and that of Bartov (1993) have argued that financial difficulties offer firms with increased incentives to embark on earnings management. While the later control for financial difficulties using book to market ratios and financial leverage, the former measures financial leverage as long term financial liabilities plus debt included in the current liabilities. Therefore, these variables were used in the study model as displayed below.

$$FRQ_{it} = \beta_{0it} + \beta_1 BOW_{it} + \beta_2 BNA_{it} + \beta_3 BRE_{it} + \beta_4 BEX_{it} + \beta_5 BRP_{it} + \beta_6 BAG_{it} + \beta_7 BWM_{it} + \beta_8 ACG_{it} + \beta_9 ROA_{it} + \beta_{10} LEV_{it} + \mu_{it} \dots \text{Model 2}$$



Where:

FRQ = Financial reporting quality, BOW = Board ownership, BNA = Board nationality, BRE = Board remuneration, BEX = Board experience, BRP = Board reputation, BAG = Board age, BWM = Board women members, ACG = Audit committee gender, ACG = Return on Assets, LEV = Leverage,  $\beta_1$  -  $\beta_8$  = Coefficient of explanatory variables,  $\beta_0$  = Constant,  $\mu$  = Error Term and it = Banks and Time. The way the independent variables are measured is described in Table 1.

**Table 1: Variable Definition and Measurement**

Variable	Proxy (ies)	Measurement
Board Diversity	Board Ownership	Board of directors shares over outstanding shares (Farouk, 2018).
„	Board Nationality	Number of foreign directors divided by the total number of board members (Ibrahim & Hanefah, 2016 and Farouk, 2018).
„	Board Remuneration	Total amount of remuneration paid to the board of directors excluding bonuses (Farouk, 2018)
„	Board Experience	Average years spend by directors in a particular year (Oba, 2014 and Abdelsalam & Street, 2007)
„	Board Reputation	Number of board members with any of the following national honours GCFR, GCON, CFR, OFR, OON, MFR and MON
„	Board Age	Average age of directors in a particular year (e.g., Letting et al., 2012; Sartawi et al., 2014)
„	Women Board Members	Number of women on board divided by the total number of board members (Bathula, 2008, Farouk, 2018)
„	Audit Committee Gender	Number of women on audit committee divided by the total number of audit committee members (Salleh, Hashim & Mohamad, 2012 and Farouk, 2018).
Return on Assets	Return on Assets	Ratio of profit after tax to total assets (Kilic, 2015 and Rajula, 2016)
Leverage	Leverage	Long term financial liabilities plus debt included in the current liabilities (Wasimullah, Toor & Abbas, 2010, Shehu & Yero, 2012)

## 4. Results and Discussion

### 4.1 Descriptive Analysis

The descriptive statistics is presented in Table 2 showing the minimum, maximum, mean, standard deviation and normality test showcased through skewness and kurtosis. Table 2 shows that the minimum value for earnings management is 0.0002 implying that

the quality of earnings was high within the banks. When compared with the highest level of discretionary accrual from the residuals of the model, it depicts that earnings management was low due to the value recorded for maximum implying high financial reporting quality. The mean value further substantiates the fact that earnings management was low within the study period. Board ownership had a minimum value of 0.002 and a maximum value of 0.55, implying that the lowest percentage of shares held by the directors was less than 1%, while the highest percentage of shares held also by the directors was at 55%. Board nationality had a minimum value of 0 and a maximum value of 0.40 implying that there was a board in the banking sector within the study period that do not have foreign nationals as members of the board. The mean value of about 0.04 implies that, on the average, there were, at least, 4% of foreign nationals represented on the board of the banks. The lowest numbers of years spent by a board member in the banks within the study period was two years; while the maximum number of years was seven. The lowest number of board members with national honours on the board of directors of the banks is zero. The highest number of members with national honours on board of banks in Nigeria stood at five within the study period. The average age of directors for all the banks covering the study period is about 49 years old. The mean value of women board members implies that, on the average, the banks had 15% of women represented on board of directors for all banks. Audit committee gender on the average, had at least 13% of women present on their audit committees within the study period. This further substantiates the fact that there are few numbers of women appointed by banks.

**Table 2: Descriptive Statistics**

Variables	Min	Max	Mean	Std.	Skew	Kurt
FRQ	0.00024	0.01455	0.0020	0.0024	2.5533	10.236
BOW	0.002	0.55	0.09	0.10	1.8456	6.5910
BNA	0	0.40	0.04	0.10	2.245	6.4007
BRE	9.25	15.74	12.71	1.28	-0.3373	2.8424
BEX	2	7	4.27	1.05	0.0458	2.3993
BRP	0	5	1.33	1.33	0.7044	2.7351
BAG	41	64	49	5.59	0.6581	2.1737
WBM	0	0.60	0.15	0.11	1.0347	5.3054
ACG	0	0.50	0.13	0.13	0.7242	2.9017
ROA	-29.64	9.54	1.14	3.63	-4.9820	39.294
LEV	68.91	99.47	85.43	5.94	-0.4983	3.2501

#### 4.2 Correlation Analysis

Table 3 shows the Spearman correlation values between the dependent and the independent variables. It also shows the relationship amongst the independent variables.

**Table 3: Correlation Matrix**

	FRQ	BOW	BNA	BRE	BEX	BRP	BAG	BWM	ACG	ROA	LEV
FRQ	1										
BOW	.1986*	1									
BNA	.2062*	-.0996	1								
BRE	-.5363*	-.2198*	.0634	1							

BEX	-.0587	.0218	-.0505	.0218	1						
BRP	-.3272*	.0714	-.1567*	.1758*	-.0994	1					
BAG	.2080*	.0044	.0276	-.0081	-.0208	-.1467	1				
BWM	-.4121*	.0133	-.0907	.2136*	-.0661	.2312*	.0888	1			
ACG	-.2865*	.3372*	-.2855	.0913	.0714	.1410	.0053	.4595*	1		
ROA	-.1498	-.0989	.1087	.1279	.1661*	-.0553	-.1004	.1862*	.0643	1	
LEV	-.0724	.0542	-.1393	-.3021*	-.0635	.1969*	-.0558	.1498	.0640	-.2478*	1

\*. Correlation is significant at 0.01 and 0.05 level (2-tailed)

Table 3 shows that financial reporting quality is positively correlated with board ownership. This implies that the variables move in same direction but at different magnitude. Board nationality is found to have positive relationship with financial reporting quality. Financial reporting quality recorded negative relationship with board remuneration. This implies that financial reporting quality has an inverse correlation with board remuneration. Board experience was also found to have negative correlation with financial reporting quality of banks in Nigeria thus implying an inverse but weak relationship. Board reputation has negative but not perfect correlation with financial reporting quality which implies an inverse relationship between board reputation and financial reporting quality. Financial reporting quality was found to have positive relationship with age of the banks' board members. Finally, the association between other independent variables was mostly insignificant. The mean (VIF) value of 1.18 further substantiate that multicollinearity is not a problem.

#### 4.3 Regression Results

The multiple regression results are presented in Table 4. Cumulatively, the model records an  $R^2$  of 0.4471 (44%) which shows the extent to which the financial reporting quality is explained by the combination of board ownership, board nationality, board remuneration, board experience, board reputation, board age, women board members and audit committee gender. In addition, the Fisher exact test value of 9.78 indicates that the model of the study is well fitted, as such, the variables selection, combination is adequate. It further implies that the relationship between the dependent and independent variables is not due to mere chance as their 99% level of confidence ( $P\text{-value} < .001$ ).

The findings of the study provides evidence of rejecting the hypotheses in respect of board nationality, board experience, board reputation and board age formulated earlier due to non-significance of the variables, while hypotheses in relation to board ownership, board remuneration, women board members and audit committee gender were all significant and hence failed to be rejected.

**Table 4: Summary of Regression Results (Robust OLS)**

Variables	Coeff	T-Stat	Prob
Constant	0.0193	4.43	0.000
BOW	0.0035	2.03	0.044
BNA	0.0006	0.40	0.686
BRE	-0.0007	-4.58	0.000
BEX	-0.0002	-1.35	0.179
BRP	-0.0001	-1.33	0.185
BAG	0.00002	0.67	0.503
WBM	-0.0029	-2.24	0.026
ACG	-0.0033	-3.54	0.001

ROA	-0.0002	-3.31	0.001
LEV	-0.0001	-2.48	0.014
$R^2$			0.4471
<i>F-Statistics</i>			9.78
<i>P-Value</i>			0.0000

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**Source: Result output from Stata 13**

\*Coeff = Coefficient, Stat = Statistics, Prob = Probability, Cum. R = Cumulative Result

The regression results revealed that board ownership has positive and significant effect on earnings management of banks. This implies that for any point increase in shares held by board members, their financial reporting quality decreases significantly. This may be as a result of the argument put forward by the advocate of the entrenchment hypothesis that high levels of insider ownership can become ineffective in aligning insiders to take value maximizing decisions, which may lead to decrease in quality of financial reporting. The finding is in line with those of Parveen, Malik, Mahmood and Ali Jan (2016) and Swai and Mbogela (2016).

The board nationality has a positive t-statistics and coefficient which is not significant at 5% level. This shows that foreign nationals on banks' board have an insignificant but positive effect on their earnings management. This connotes that a point increase in the number of foreign nationals on board decreases the quality of financial reporting insignificantly. This result may be due to the location of foreign directors, their distance and cost of travelling to attend meetings in order to monitor the activities of the management by curtailing their tendencies to engage in earnings manipulation. This finding is in line with the studies of Van der Zwet (2015) and Van der Berg (2015) in U.S and U.K respectively that do not support the hypothesis that firms with more nationality diverse boards of directors have lower levels of earnings management.

Board remuneration based on its coefficient value of -0.0007 which is significant at 1% level negatively and significantly affected the earnings management of the listed deposit money banks in Nigeria. This implies that when the amount paid to directors' as remuneration is increased; the level of financial reporting quality of banks is enhanced significantly. This may be as a result of the fact that when directors pay is not tied to performance, they will not be motivated to engage in earnings manipulation in order to attract higher pay thereby ensuring quality financial reporting. This finding is in line with those of Hassen (2014) who found that total compensation negatively related to the earnings management.

For board experience, it indicates negative but insignificant effects on earnings management of banks. This however implies that for every point increase in the number of years spent by members of banks' board, it enhances the level of quality of financial reporting insignificantly. This may be as a result of the fact that experienced board members will have varieties of ideas and suggestions which enable them function more effectively in monitoring the management. This finding is in line with the studies of Abdelsalam and Street (2007) and Ebimobowei and Yadirichukwu (2013) who found that long serving directors effectively monitor management by ensuring quality financial reporting.

Board reputation has negative but insignificant effect on earnings management banks. This implies that any point increase in the number of board members with national

honour, the financial reporting quality of the listed deposit money banks increase insignificantly. This finding is not surprising as the board members may want to protect their integrity, name and reputation in the society, thereby ensuring compliance and serving as monitor to mitigate the opportunistic behaviour of management. This finding is in line with the assertion by Segal (2015) that board members with reputation have stronger incentives to ensure high quality monitoring thereby ensuring high reporting quality.

Board age shows that it has positive influence on banks' earnings management. This implies that an increase in the age of the directors reduces the financial reporting quality insignificantly. This could be as a result of the fact that aged board members may not be energetic and as such lose the ability to serve as better monitors over the managers unlike their younger counterparts do. This finding is in contrast to Huse and Rindova (2001) where they asserted that having board of directors with heterogeneous ages help ensure different views and alignment of directors with different stakeholders in society.

The result for women board members signifies that they have a significant but negative effect on earnings management of banks. This implies that for every increase in the number of women on the board of directors of banks, their financial reporting quality improve significantly. This can be as a result of the fact that increasing the number of female directors may increase the board's monitoring since women are more inquisitive than male directors. The finding is in line with those of Hillma, Shropshire and Cannella (2007) and Huse and Solberg (2007) as advocated by proponents of organization theory that female involvement ease deliberation of resilient issues and hence stimulates communications of the board.

Audit committee gender has negative and significant effect on earnings management of banks in Nigeria. This means that when there is a point increase in the number of women in audit committee, the financial reporting quality of banks is enhanced. This result can be attributed to the assertion that the diluted audit committee through women is often considered as an essential characteristic in influencing the committee's effectiveness by overseeing the financial reporting process. This finding tallies with those of Peni and Vahamaa (2010) which found higher number of female on audit committee to influence quality of financial reporting positively.

Return on assets has negative and significant effects on earnings management of banks. This suggests that for every upward movement in banks' return on assets, their quality of financial reporting in greatly enhanced. This finding may have suggested that, banks may have no need for manipulating accounting earnings when they have their return on assets improved except where the management wants to avoid heavy taxation. In other words, where the accounting numbers are not too impressive, this may influence managers' opportunistic behavioural tendencies in reporting favourable earnings.

Leverage has negative but significant effect on earnings management banks. This connote that a percentage increase in the level of banks' leverage, their financial reporting quality is increased significantly. This finding may not be surprising, as it goes in line with the findings of Wasimullah et al. (2010) who found that highly leverage firms have low free cash flow as large portion of the cash flow are used in form of interest expenses and as such the manager avoid investing in non-value maximizing projects.

## **5 Summary and Conclusion**

The study investigates the effects of board diversity on financial reporting quality of listed Deposit Money Banks in Nigeria. The variables of board diversity examined were board ownership, board nationality, board remuneration, board experience, board age, board reputation, women board members and audit committee gender, while the control variables include return on assets and leverage. In addition, residuals from Chang, Shen and Fang (2008) model were used to proxy financial reporting quality. The study has made significant contributions through introduction of new variables such as reputation and remuneration. The study revealed that board ownership, board remuneration, women board members and audit committee gender were significant in explaining financial reporting quality of listed DMBs in Nigeria, while board nationality, board experience, board reputation and board age were found to have insignificant contribution to banks' financial reporting quality. The policy implication of the study is for the Central Bank of Nigeria (CBN) to formulate policy to decrease the interest (shares) held by concentrated owners in order to encourage alignment of their interest with other minority shareholders and also discourage ownership domination and control.

The results should be interpreted in the light of the following limitations. For example, the study only covers the listed Deposit Money Banks in Nigeria because it is a sector that is under close surveillance, highly regulated and monitored. Therefore, the findings and recommendation are only applicable to the banking sector as the diversity variables varies significantly in other sectors. Therefore, the study suggests that interested researchers in this area should consider other sectors to make the findings flexible for generalization. Further, only eight variables were covered in this study; therefore, future researchers should consider the inclusion of board qualification, board region and board religion. Also, Chang, Shen and Fang (2008) model was used to proxy financial reporting quality. Interested researchers should consider more recent and sophisticated models for measuring financial reporting quality such as Yoon, Kim and Woodruff (2012).

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