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EFFECT OF BOARD CHARACTERISTICS ON ASSET QUALITY: EVIDENCE FROM COMMERCIAL BANKS

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ABSTRACT

The study investigated the effect of board characteristics on asset quality management among listed commercial banks in Nigeria, using board size, and board gender diversity on non-performing loan ratio of listed commercial banks in Nigeria. The study adopted an ex-post facto research design. Data collection was carried out using secondary method, whereby relevant data were extracted from the annual reports of the sampled banks over a decade, spanning from 2013 to 2023. The data collected were descriptively analyzed and the hypotheses were tested using Pooled Estimated Generalized Least Squares at 5% significance level. The study found that board size has a significant positive effect on non-performing loan ratio of listed commercial banks in Nigeria; board gender diversity has a significant negative effect on non-performing loan ratio of listed commercial banks in Nigeria. The study recommends among others that board nomination committees should actively promote gender diversity on their boards, while also providing necessary support and resources to ensure equal participation and influence in decision-making processes.

***Key words:** Board Gender Diversity, Boared Size, Non-Performing Loan Ratio*

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1. INTRODUCTION

The globalization of business practices and financial crises have underscored the significance of corporate governance, particularly in the aftermath of major corporate collapses like WorldCom and Enron. Nigeria's financial sector suffered significant setbacks due to poor corporate governance standards, corruption, and lack of transparency, leading to a loss of shareholder confidence in both public and private enterprises. In response, the Securities and

Exchange Commission introduced the Code of Best Practice to restore trust and provide guidelines for corporate governance principles in Nigeria. The Nigerian 2023 Corporate Governance Code aims to enhance the governance practices of Nigerian companies by establishing comprehensive guidelines that promote transparency, accountability, and ethical behaviour (Adnan, 2012). This updated code introduces stricter requirements for board composition, emphasizing the inclusion of independent directors and gender diversity to ensure balanced decision-making. It also mandates robust risk management frameworks and internal controls, aligning with international best practices. The code's relevance lies in its potential to improve corporate governance standards across Nigerian firms, fostering investor confidence, enhancing operational efficiency, and reducing incidences of corporate malfeasance. In any organization, there is an interest issue which is based on the separation of ownership and management. Studies have been conducted investigating the separation of interest between management and ownership that creates agency problem. Many effects and dimensions have been explored, but one of the important one is board of directors' aspect, which simply are the mechanism in the organization which investors have it to safe their interest, and not only investors interest but also the organization as whole. Through the board of directors, the investors qualify the organisation's problem, monitor the business, and ensure that the interest of the shareholders who are not in management system are safe. In fact, board of directors are important part of corporate governance, therefore the members must be attentive to the basic responsibilities that have been assigned to it.

Board of directors are required to make decisions to improve the company which they were assigned via monitoring, avoiding, supervising and finding out the opportunities (Borlea, Achim, & Mare, 2017; Cavaco *et al.* 2017). The role which the board of director have is active role in the organization (Abdullah & Aziz, 2017; Coles *et al.* , 2001) which they can make a platform for the company (Aluchna, 2010) The board ensures cordial relationship between the manager and shareholder because the board of directors are the shareholders' authority in the organization, can be manage

Banks operating with strong governance structures ensure effective oversight and management of assets. The board of directors equipped with diverse expertise and perspectives, plays a crucial role in setting strategic directions, overseeing risk management practices, and ensuring that the bank maintains high asset quality (Gupta & Sharma, 2023). Effective board characteristics, such as an optimal board size, gender diversity, diligent meeting practices, and a well-composed credit committee, contribute to minimizing non-performing loans (NPLs) and enhancing the bank's overall stability and profitability (Kakozi, 2017). In this scenario, banks are able to support economic growth by providing reliable credit facilities, maintaining stakeholder confidence, and contributing positively to the financial system's resilience. Poor asset quality, reflected in high NPL ratios, can severely impact on a bank's financial performance and stability. Banks with high levels of NPLs may face liquidity issues, reduced profitability, and diminished investor confidence. This can lead to a vicious cycle of financial distress, where the inability to recover from bad loans further weakens the bank's financial position. Additionally, the broader economic implications are significant, as unstable banks can undermine the overall financial system's integrity and hinder economic growth. For Nigeria, where the banking sector plays a vital role in economic development, addressing these governance challenges is crucial to ensuring the sector's health and sustainability. This study seeks to analyse the specific board characteristics that influence asset quality management in Nigerian banks.

1.1 Objectives

The study aims to examine how board characteristics affect banks' asset quality management in Nigeria. The specific objectives of the study were to:

1. ascertain the effect of board size on non-performing loan ratio of listed commercial banks in Nigeria.
2. determine if board gender diversity affects non-performing loan ratio of listed commercial banks in Nigeria.

1.2 Hypotheses

H_0: The size of the board has no significant effect on non-performing loan ratio of listed commercial banks in Nigeria.

H_0: Board gender diversity has no significant effect on non-performing loan ratio of listed commercial banks in Nigeria.

2. LITERATURE REVIEW

2.1 Conceptual Review

2.1.1 Board Characteristics

Board characteristic is a contemporary term. And different studies have defined the phrase in different ways. Board characteristics have been defined as features of corporate boards that are tasked with overall management of the firm (Yermark, 2016). Jackson (2011) also defines Board characteristics as the human and technical constituents and features of the board of an organization. Since the success or collapse of firms is associated with the role acted by the management and firm governance as a process, the study of Board characteristics becomes imperative. Board characteristics include but are not limited to the following:

2.1. 2 Board Size

Lipton and Lorsch (1992) opined that 'Board Size' refer to the numeric composition of top human resources of an organization. From the agency problem perspective, large boards are not recommended while small boards are preferred to improve performance (Yermark, 2016). In these terms, Kim and Nofsinger (2017) argue that small boards are better than large ones as they avoid the free-rider problem that might appear among board members, meaning each board member may feel inclined to exert more effort than s/he would have otherwise. The contrary view to the agency and resource-based perspective is that larger boards are associated with diversity in skills, business contacts and experience. Similarly, larger boards secure access to critical resources such as finance and raw materials (Goodstein et al. , 2014). Regarding the board of director's size performance relationship, one of the main reliable empirical associations is that board size is associated negatively with the performance of the firm (Hermalin & Weisback, 2013). Statistically, it has been found by Yermack (2016) that there is a significant negative association between the performance of an organization and the board size as calculated by Tobin's Q by taking a sample of 452 huge U.S. industrial companies for the period from 1984 to 1991. In the same research, it has also been exhibited that corporations with small boards have highly favourable standards for financial ratios. In the same way, Wells, Eisenberg and Sundgren (2018) exhibit that there is a negative relationship between a firm's board size and its performance calculated by the ROA (return on assets) using a sample of 879 small private concerns in Finland. The study by Barhart and Rosenstein, conducted during 1998, exposed that organizations with fewer members on the board have greater performance compared to the firms with large boards. The study by Conyon and Peck (2018) covers the period from 1992 to 1995 and it was carried out for five countries — France, UK, Italy, Denmark and Netherlands — which also proved that there is negative relationship between financial performance and the board size for each country.

The study by Loderer and Peyer (2012) revealed negative collision of size of the board on the Tobin'Q for Switzerland. The negative association between the size of the board and the performance of the firm for Japanese firms has been concluded in the study by Bonn, Yoshikawa and Phan (2014) but the same research failed to discover the same result the Australian firms. Lasfer (2014) has shown a significant negative impact of size on board on the Tobin's Q for 1424 UK firms. The same results were found for the Malaysian firms in both the studies made by Mak and Kusnadi (2015). With respect to firm value, Coles, Daniel and Naveen (2008) support the notion those restrictions on the board size and management representation on the board necessarily enhance firm value. The idea of small boards is supported as small boards will lead to more cohesiveness, more productive, effective monitoring and still against the idea of large boards due to the problems that come up from social loafing and coordination costs (Yermark, 2016). Collectively, these and similar studies imply that small boards are better.

2.1.3 Gender Diversity

For the empirical literature, Adams and Ferrira (2019) find evidence that gender composition on boards is positively related to board effectiveness measures. Also, Carter et al. 2013) find positive association between gender diversity and Tobin's Q as a proxy for market-based performance measures. However, Dalton and Dalton (2010) state that greater gender diversity may affect performance negatively due to the fact that women are known to be risk averse and because of the high cost associated with their high turnover and absenteeism rate (Dalton & Dalton, 2010). Also, a high proportion of gender diversity on the board may lead to identification with the opinion expressed by the directors of the same gender (Campbell, 2018). Shrader et al. (2017) find a negative association between gender diversity and firm performance. The study justified this association because the view of women may be marginalized although they are still paid. This impacts negatively the firm performance. A third stream of studies found no relationship between gender diversity and firm performance (for example: Rose, 2017).

2.1.4 Asset Quality

Asset quality is the classifications of credits according to the probability of repayment which estimates the amount of loss that will be incurred on deteriorating credits. It is also the rating which reflects the quantity of existing and potential credit risk associated with the loan and investment portfolios, other real estate owned and other assets as well as off balance sheet transactions. The ability of the management to identify and manage credit risk is also shown here. Asset quality refers to the overall soundness and creditworthiness of a bank's loan portfolio. It is a measure of the degree to which the bank's loans are likely to be repaid in full and on time. The Basel Accords, particularly Basel I, II, and III, have significantly influenced asset quality management by setting international standards for banking regulation and supervision. These accords emphasize the importance of maintaining adequate capital reserves to absorb potential losses from poor-quality assets. Basel II introduced a more sophisticated approach to risk management, requiring banks to adopt advanced credit risk assessment models and enhance their internal controls. Basel III further strengthened these requirements by increasing the capital adequacy ratios and introducing new regulatory standards for liquidity and leverage. By adhering to the Basel Accords, banks are compelled to improve their asset quality management practices, ensuring that they hold sufficient capital against potential losses and maintain financial stability. This regulatory framework helps prevent excessive risk-taking and promotes a more resilient global banking system.

2.2. Empirical Review

Edeh and Iwedi (2024) investigated the impact of corporate governance on the stability of domestically significant banks in Nigeria over thirteen years (2010-2022). Using time series data from annual reports and Nigerian Exchange fact books, the research employed an ex-post facto research design. Various analytical techniques were applied, including panel unit root test, Hausman test, panel random effect test, residual cross-section dependence test, and normality test. The panel random effect regression technique was used to unveil the short-term effects with a 95% confidence interval. The findings demonstrated a significant relationship between corporate governance variables (Board Representation, Board Size, Audit Committee Independence, Board Activism, and Audit Committee Meetings) and the capital adequacy of Nigerian banking firms. The study advocates for enforcing robust corporate governance mechanisms within the banking sector to temper the high-risk appetite of directors.

Agha, Oluyombo, and Aworinde (2023) explored the nexus between bank governance, asset quality, and banking risk, measured by the distance to default (DTD), and their interactions with prudential policy and macroeconomic factors. Using the Resource-Based View (RBV) to examine how banks use their unique resources, assets, competencies, and governance frameworks to mitigate risks and navigate regulatory policies and macroeconomic variables, the study analyses panel data from 12 listed banks on the Nigeria Stock Exchange (NGX) from 2008 to 2021. Various diagnostic tests, including autocorrelation, heteroskedasticity, and cross-sectional dependence, were conducted, and the Feasible Generalized Least Squares (FGLS) method was used for hypothesis testing. The findings revealed that bank governance's interaction with asset quality has a negative and insignificant impact on bank risk. Liquidity, interest rate, inflation, and gross domestic product are significant determinants of banking risk.

Widijaya (2022) investigated the effect of corporate governance (CG) and company characteristics on accounting conservatism. The study focused on companies with annual reports registered and published on the Indonesia Stock Exchange. Data were collected from 2016 to 2020, with a sample size of 436 companies that met the selection criteria. Data analysis was conducted using a panel regression model. The findings revealed that independent boards of directors, leverage, profitability, and sales growth positively influence accounting conservatism. However, the size of the board of directors, type of auditor, and firm size did not have a significant effect on accounting conservatism.

Khalid (2012) examined the impact of asset quality on the profitability of private banks in India, using Return on Assets (ROA) as the profitability variable for the period 2010–2020. The operating performance of the sample banks was estimated using financial ratios. Multiple regression models were employed to examine the correlation between banks' asset quality and operating performance. The results showed that a bad asset ratio is negatively associated with banking operating performance, after controlling for the effect of operating scale, traditional banking business concentration, and the idle fund ratio. The results support the hypothesis that higher loan processing quality before approval leads to fewer non-value-added activities for processing problematic loans, thus enhancing banking operating performance.

Arora and Sharma (2016) examined the relationship between corporate governance (CG) and performance in emerging economies, focusing on India. The empirical analysis covered the years 2001–2010 and included a significant number of enterprises from 20 different industries in India's manufacturing sector. The study used system generalized methods of moments (SGMM). The results suggested that large boards are linked to higher intellectual gravity. However, Return on Equity (ROE) and profitability were found to be unrelated to CG measures, and CEO duality was also unrelated to all sample performance factors. Onaolapo (2012) analysed credit risk management efficiency in the Nigerian commercial banking sector from 2010 to 2020. The study provided insights into credit risk as a profit-enhancing mechanism. Regression analysis revealed a minimal causation between deposit exposure and bank performance.

Shahroor and Ismail (2022) investigated the impact of corporate governance mechanisms on earnings management in the United Arab Emirates. Data covering twelve years (2009–2020) were collected from annual reports of listed national banks in the UAE and analyzed using descriptive statistics, correlation analysis, ordinary least squares (OLS) estimator, generalized least squares (GLS) estimator, and panel-corrected standard error (PCSE) estimator. Discretionary accruals were estimated using the adjusted Jones model as suggested by Dechow. The overall findings indicate that board characteristics negatively affect earnings management.

Mark and Daniel (2022) examined the effect of board attributes on earnings management in listed health firms in Nigeria over a ten-year period (2011-2020). The study adopted an ex-post facto research design and used secondary data from the Nigerian Exchange Group. Panel regression analysis was employed to analyze the data. The results showed that board size and board meeting frequency, as proxies for board attributes, have a positive and significant effect on discretionary accruals, used as a measure of earnings management. The study concludes that board size and meeting frequency significantly positively affect earnings management and substantially reduce the earnings of listed health firms in Nigeria. It recommends increasing the board size and adding more non-executive directors to enhance monitoring and prevent earnings manipulation.

Iqbal, Sharofiddin, Farooq, and Khan (2022) investigated the effect of corporate governance on accrual earnings management practices in non-financial firms in Malaysia. The data set consisted of 1,644 Shariah-compliant non-financial firm-year observations from the Hijrah Shariah Index Malaysia over the period 2008 to 2019. The study used a two-step system generalized method of moment (2SYS-GMM) estimation technique, incorporating moderate variables into the model, with earnings management measured using the modified Jones model. The findings showed that corporate governance mechanisms significantly constrain earnings management practices. Board size, board independence, board meetings, and the absence of CEO duality play significant roles in curbing accrual earnings management practices.

Onguka *et al.* (2021) analysed the relationship between corporate governance, capital structure, ownership structure, and firm value for companies listed on the Nairobi Securities Exchange. A census survey of 64 publicly traded companies, with a sample size of 58 firms, was conducted for the period from 2013 to 2017. Using a descriptive design and panel data analysis, the study employed multiple regression analysis and Baron and Kenny's (1986) approach to assess these relationships.

Buvanendra, Sridharan, and Thiyagarajan (2019) compared the firm characteristics, corporate governance (CG), and capital structure changes of listed companies in India and Sri Lanka from 2004 to 2017. Using a dynamic adjustment model, they examined ten independent variables including CG and firm-specific factors. The study found that firms in both nations gradually adapted to an optimal capital structure. Additionally, there were significant differences between Sri Lanka and India in the key parameters influencing capital structure modifications.

Abdulazeez, Lawal, and Yabagi (2019) examined the impact of board structure (board size and independence) on asset quality (non-performing loans (NPL) and loan-to-deposit ratio (LDR)) of listed deposit money banks in Nigeria over ten years (2008-2017). Data were collected from the annual reports of fifteen banks. Various robustness tests were conducted to check for multicollinearity, model fitness, and the appropriate regression analysis. Descriptive statistics, correlation, and OLS robust regression were used for data analysis. The study found that board structure proxies showed no significant impact on asset quality. It recommended that independent directors should be encouraged to take their responsibilities seriously to help improve banks' asset quality.

Ogboru (2019) investigated the relationship between asset quality and the performance of deposit money banks in Nigeria over thirty years (1986-2016), using time series data from the Nigeria Deposit Insurance Corporation annual reports, CBN financial stability report, and CBN statistical bulletin. The study used return on asset (ROA) as a proxy for bank performance, and ratios of non-performing loans to total loans (NPL), liquid assets to total assets (LAT), and liquid assets to short-term liabilities (LAS) as measures of asset quality. Both descriptive and econometric techniques were used to analyse the data. The results showed a short-run relationship between asset quality and bank performance, and a long-run relationship was confirmed by co-integration analysis. Granger causality tests also indicated causality between asset quality and bank performance. The study concluded that maintaining sound asset quality is critical for the long-term performance and sustainability of banks in Nigeria.

3. MATERIAL AND METHODS

Ex-post facto research design was chosen for its effectiveness in analyzing variables after they have occurred naturally. This design allows for the examination of existing data, providing useful hints into the effect of board characteristics on asset quality management in Nigerian banks. By utilizing this approach, the study cannot therefore manipulate the variables since they have taken place in the past. This study focuses on the Nigerian commercial banking industry, specifically examining the influence of board characteristics on the asset quality management among listed commercial banks in Nigeria. The rationale behind selecting this sector stems from its pivotal role within the country's financial domain, where the Nigerian banking sector serves as a cornerstone for economic growth and development. Census sampling, a method aimed at including every member of the population in the study, was employed to determine the sample size for this research.

With thirteen (13) listed commercial banks on the Nigerian Exchange Group, as indicated in Table 1, these institutions constitute the population under investigation for this study.

Table 1 Study Population

1.	Access Bank Nigeria Plc.
2.	Ecobank Transnational Incorporated Bank Nigeria Plc.
3.	Fidelity Bank Nigeria Plc.
4.	First Bank Nigeria
5.	First City Monument Bank Nigeria
6.	Guaranty Trust Bank
7.	Stanbic IBTC
8.	Sterling Bank
9.	United Bank for Africa Plc.
10.	Unity Bank
11.	Wema Bank Plc.
12.	Zenith Bank Nigeria Plc.
13.	Jaiz Bank

Source: Nigerian Exchange Group (2024)

These are different ways of obtaining information and collecting data. Secondary data was the main source of data. Data were collected from annual audited financial reports from2013 to 2023 as they are reliable and readily available. All commercial banks are required by law to file all their financial reports with the Registrar of Companies at Attorney General Chambers and the Central Bank of Nigeria. They are also required to publish all these annual financial reports by or before 31st, March, of every year. Upon collection, the gathered data underwent a meticulous descriptive analysis, aiming to provide a comprehensive overview of the variables under investigation within the Nigerian commercial banking industry. This analysis enabled the researchers to identify key trends, patterns, and relationships inherent in the dataset, offering useful hints into the dynamics of board of directors' attributes and their influence on asset quality management. Subsequently, to rigorously test the formulated hypotheses, Estimated Generalized Least Squares (EGLS) with period weights were employed at a significance level of 5%.

The application of a multiple regression model was put in place so as to establish the effect of board characteristics on asset quality management of Nigerian Commercial Banks. The model was adapted from the study by Karaye, Ahmad-Zaluki and Badru (2022) which expressed asset quality management thus:

BAQ= $\alpha0 + \alpha1CCS + \alpha2CCI + \alpha3CCG \ldots + \alpha nXn + e$ -------------Eqn 1.

Where,

BAQ is Bank Asset Quality represented by non-performing loan ratio

CCS is credit committee size

CCI is credit committee independence

CCG is credit committee gender diversity

Xn is other predicting variables

Equation I was adjusted to align with the particular objectives of the current study, as follows:

$NPLR_{it} = \beta_0 + \beta_1 BSZ_{it} + \beta_2 BGD_{it} + \varepsilon_{it}$------------------Eqn 2.

Where,

NPLR = Non-performing loan ratio

BSZ = Board size

BGD = Board Gender Diversity

β_0 = the intercept

$\beta1$,and $\beta2$ = the coefficients for the independent variables

it = firm *i* in year *t*

ε = Error term.

Table 2 Operationalization of Variables

Variable	Formula	Source
1. Asset Quality Management proxy by non-performing loan ratio	Non-performing loan/ Gross loan	Karaye, Ahmad-Zaluki and Badru (2022)
2. Board size	Total number of directors	Lipton and Lorsch (2022)
3. Board gender diversity	Female director/ Total number of directors	Adams and Ferrira (2019)

Source: Researcher's Compilation, 2024

The decision rule, particularly as it applies to the testing of hypotheses in the study, is as expressed: accept Alternate hypothesis (H1) if cal P-value is less than 0.05 (p-value < 0.05); otherwise accept the null hypothesis (Ho).

4. RESULT AND DISCUSSIONS

4.1 Data Analysis

Table 3 Descriptive Analysis

	NPLR	BSZ	BGD
Mean	0.073684	13.09790	0.237718
Median	0.045360	13.00000	0.250000
Maximum	0.764197	19.00000	0.500000
Minimum	0.000000	6.000000	0.000000
Std. Dev.	0.109903	2.910193	0.112877
Skewness	4.301677	-0.148913	-0.362801
Kurtosis	23.09064	2.835070	2.862861
Jarque-Bera	2846.007	0.690586	3.249112
Probability	0.000000	0.708013	0.196999
Sum	10.53685	1873.000	33.99361
Sum Sq. Dev.	1.715172	1202.629	1.809259
Observations	143	143	143

Source: Eviews 11 Output (2024)

As shown in Table 3, the descriptive statistics for the Non-Performing Loan Ratio (NPLR) among listed commercial banks in Nigeria indicate a mean value of 0.073684, suggesting that on average, approximately 7.37% of loans are non-performing. The maximum value of 0.764197 shows that some banks have a significantly higher proportion of non-performing loans, up to about 76.42%. The minimum value is 0, indicating that some banks have managed to avoid non-performing loans altogether. The standard deviation of 0.109903 suggests variability in NPLR across banks, while the high skewness of 4.301677 and kurtosis of 23.09064 point to a distribution that is heavily skewed to the right with extreme outliers. Board size (BSZ) has an average of 13.09790 directors, with the largest board comprising 19 members and the smallest having 6. The standard deviation of 2.910193 indicates moderate variation in board sizes across the banks. The skewness of -0.148913 suggests a fairly symmetric distribution, while the kurtosis of 2.835070 indicates a distribution close to normal.

Board gender diversity (BGD) is measured by the proportion of female directors on the board. The mean value is 0.237718, indicating that, on average, about 23.77% of board members are female. The maximum proportion is 0.5 (50%), while some boards have no female representation, as indicated by the minimum value of 0. The standard deviation of 0.112877 suggests some variability in gender diversity across boards. The skewness of -0.362801 and kurtosis of 2.862861 suggest a relatively normal distribution with a slight left skew.

4.1.2 Model Diagnoses

The test for model diagnoses was carried out using Variance Inflation factors, Breusch-Pagan-Godfreytest for heteroskedasticity, and Pearson Correlation, as shown in Tables 4.2..

Table 4 Correlational Analysis: Ordinary

Covariance Analysis: Ordinary

Date: 06/01/24 Time: 23:17

Sample: 1 143

Included observations: 143

Correlation Probability	NPLR	BSZ	BGD
NPLR	1.000000		

BSZ	0.102450	1.000000	
	0.2234	-----	
BGD	-0.231882	-0.155318	1.000000
	0.0053	0.0640	-----

Source: Eviews 11 Output (2024)

The correlational analysis presented in Table 4 indicates the relationships between the predictor variables and the Non-Performing Loan Ratio (NPLR). The correlation between NPLR and board size (BSZ) is 0.102450 with a p-value of 0.2234, indicating a weak and statistically insignificant positive relationship. Board gender diversity (BGD) has a correlation of -0.231882 with NPLR and a p-value of 0.0053, revealing a statistically significant negative relationship, suggesting that greater gender diversity on the board is associated with lower non-performing loan ratios.

4.2 Test of Hypotheses

The test of hypotheses was carried out using Pooled Estimated Generalized Least Squares (Pooled EGLS) with period weights in order to address potential heteroscedasticity, as shown in Table below.

Table 5 Pooled Least Squares for Hypotheses Testing

Dependent Variable: NPLR

Method: Pooled EGLS (Period weights)

Date: 06/01/24 Time: 23:00

Sample: 2013 2023

Included observations: 143

Cross-sections included: 1

Total pool (balanced) observations: 143

Linear estimation after one-step weighting matrix

Variable	Coefficient	Std. Error	t-Statistic	Prob.
BSZ	0.001952	0.000115	16.98880	0.0000
BGD	-0.217821	0.002641	-82.46595	0.0000
C	0.087877	0.001874	46.89769	0.0000
	Weighted Statistics			
R-squared	0.991966	Mean dependent var		2.175673
Adjusted R-squared	0.991733	S.D. dependent var		13.70001
S.E. of regression	0.107076	Sum squared resid		1.582204
F-statistic	4259.732	Durbin-Watson stat		0.867486
Prob(F-statistic)	0.000000			

Source: Eviews 11 Output (2024)

The results from Table 5, which presents the Pooled EGLS for Hypotheses Testing, indicate that the regression model explains a very large proportion of the variance in the Non-Performing Loan Ratio (NPLR) among listed commercial banks in Nigeria, as evidenced by the adjusted R-squared value of 0.9917. This adjusted R-squared value suggests that approximately 99.17% of the variability in NPLR can be accounted for by the combined influence of board size, board gender diversity, board diligence, and board credit committee size. The F-statistic of 4259.732 with a corresponding p-value of 0.0.0000 suggests that the overall regression model is statistically significant at 5% level of significance. Therefore, it appears that the combined effect of the board characteristics (board size, board gender diversity, board diligence, and board credit committee size) on the Non-Performing Loan Ratio of listed commercial banks in Nigeria is statistically significant based on the results of this analysis.

4.2.1 Hypothesis I

H_0: The size of the board has no significant effect on non-performing loan ratio of listed commercial banks in Nigeria.

According to the result in Table 5, testing the effect of board size (BSZ) on the non-performing loan ratio of listed commercial banks in Nigeria, the coefficient of 0.001952 indicates that for every unit increase in board size, there is a corresponding increase in the non-performing loan ratio by 0.001952. The p-value of 0.0000 which is less than 0.05 suggests that this effect is statistically significant at the significance level of 0.05. By implication, the alternate hypothesis was accepted that board size has a significant positive effect on non-performing loan ratio of listed commercial banks in Nigeria (p-value = 0.0000<0.05).

4.2.2. Hypothesis II

H_0: Board gender diversity has no significant effect on non-performing loan ratio of listed commercial banks in Nigeria.

In line with the regression output in Table 5 examining the effect of board gender diversity (BGD) on non-performing loan ratio, the coefficient of -0.217821 suggests that an increase in board gender diversity leads to a decrease in the non-performing loan ratio by approximately 0.217821 units. The p-value of 0.0000 which is less than 0.05 indicates that this relationship is statistically significant at the 0.05 level, suggesting that there is evidence to support the assertion that board gender diversity has a meaningful impact on reducing the non-performing loan ratio among listed commercial banks in Nigeria. The alternate hypothesis was therefore accepted with the conclusion that Board gender diversity has a significant negative effect on non-performing loan ratio of listed commercial banks in Nigeria (p-value = 0.000<0.05).

CONCLUSION AND RECOMMENDATIONS

The management of asset quality is a critical aspect of banking operations, particularly for listed commercial banks in Nigeria. The composition and characteristics of the board of directors play a role in shaping the strategies and decisions related to asset quality management. However, the findings showed that the diverse perspectives and decision-making styles brought by female directors potentially enhance the board's ability to identify and address risks associated with lending activities. This underlines the importance of promoting gender diversity in corporate leadership roles as a means to improve governance practices and asset quality management in Nigerian commercial banks.

In conclusion, while larger board may introduce bureaucratic obstacles and slower decision-making, potentially hindering timely credit approval and risk evaluation, the inclusion of female directors has been found to enhance risk identification and management, underscoring the significance of gender diversity in bolstering governance practices and asset quality management.

Based on the findings, the study recommended that:

a. Listed commercial banks in Nigeria should consider optimizing their board size to ensure efficient decision-making and accountability in asset quality management by reducing the size of the board to enhance agility in decision-making processes.
b. Board Nomination Committees should actively promote gender diversity on their boards, while also providing necessary support and resources to ensure equal participation and influence in decision-making processes.

REFERENCES

Abdulazeez, D. A., Lawal, T., & Yabagi, M. (2019). Board structure and asset quality of listed deposit money banks in Nigeria. *Jurnal Riset Akuntansi dan Keuangan Vol, 7*(1).

Aluchna, M. (2010), "Corporate governance – responsibilities of the board", in Gu¨ler, A. and Crowther, D. (Eds), Handbook of Corporate Governance and Social Responsibility, Gower Publishing, Surrey

Adams, R. B. & Ferreira, D. (2019). Women in the Boardroom and Their Impact on Governance and Performance. *Journal of Financial Economics, 94*(2), 291-309.

Agha, E., Oluyombo, O., & Aworinde, O. (2023). Bank Governance, Asset Quality, and Risk. Do Macro-Prudential Policy and Macroeconomic Factors Matter? Evidence from Nigeria's Banking Sector. *International Journal of Professional Business Review: Int. J. Prof. Bus. Rev., 8*(8), 47.

Abdullah, H., & Aziz, H. (2017). Impact of Just-In-Time Manufacturing on Profit Maximization. International Business Management, 11(7) 1462-1468.

Arora, A., & Sharma, C. (2016). Corporate Governance and Firm Performance in Developing Countries: Evidence from India. *Corporate Governance*, *16*(2), 420–436. https://doi.org/10.1108/CG-01-2016-0018

Buvanendra, S., Sridharan, P., & Thiyagarajan, S. (2019). Firm Characteristics, Corporate Governance and Capital Structure Adjustments: A Comparative Study of Listed Firms in Sri. *Journal of Financial Economics, 32*(2), 195-221.

Borlea, S. N., Achim, M. V., & Mare, C. (2017). Board characteristics and firm performances in emerging economies. Lessons from Romania. Economic Research- Ekonomska Istraživanja, 30, 55–75.

Borlea, S. N., Achim, M. V., & Mare, C. (2017). Board characteristics and firm performances in emerging economies. Lessons from Romania. Economic Research- Ekonomska Istraživanja, 30, 55–75.

Cavaco, S., Crifo, P., Rebérioux, A., & Roudaut, G. (2017). Independent directors: Less informed but better selected than affiliated board members? Journal of Corporate Finance, 43, 106– 121.

Cavaco, S., Crifo, P., Rebérioux, A., & Roudaut, G. (2017). Independent directors: Less informed but better selected than affiliated board members? Journal of Corporate Finance, 43, 106–121

Campbell, K. & Mínguez-Vera, A. (2018). Gender Diversity in the Boardroom and Firm Financial Performance. *Journal of Business Ethics 8*(3), 435-451.

Carter, D. A. (2013). Corporate Governance, Board Diversity, and Firm Value. *The Financial Review, 38*(1), 33-53.

Coles, J. L., Daniel, N. D. & Naveen, L. 2018. Boards: Does one size fit all. Journal of Financial Economics, 87(2), 329-356.

Conyon, M. J., and Peck, S. I. (2018). Board Size and Corporate Performance: Evidence from European Countries. *European Journal of Finance 4*, 291-304.

Dalton, D. R., & Dalton, C. M. (2010). Women and corporate boards of directors: The promise of increased, and substantive, participation in the post-Sarbanes-Oxley era. *Business Horizons, 53*(3), 257-268.

Edeh, M. B., & Iwedi, M. (2024). Corporate Governance And Soundness Of Banking Firms In Nigeria. *African Banking and Finance Review Journal*, *10*(10), 1-13.

Goodstein, J., Gautam, K., & Boeker, W. (2014). The Effects of Board Size and Diversity on Strategic Change. *Strategic Management Journal*, *15*(3), 241-250.

Iqbal, A., Sharofiddin, A., Farooq, Z., & Khan, S. A. (2022). Corporate Governance and Earnings Management Practices: Moderating Role of Audit Committees. *Journal of Positive School Psychology*, 57-72.

Jackson, O., (2011). The Impact of Credit Risk Management on Financial Performance of Commercial Banks in Kenya. *African journal of management policy, 3*(7), 179-217.

Kakozi, E. J. (2017). Analysis of factors influencing bank asset quality in Tanzania. *International Journal of Economics, Business and Management Research*, *1*(03).

Khalid, A.C., (2012). The Impacts of Assets Quality on Profitability of Private Banks in India: A Case Study of JK, ICICI, HDFC and YES Banks: *Journal of African Microeconomic Review 2* (1), 1 – 22.

Kim, K. A. & Nofsinger, J. R. (2017). Corporate Governance (Second Edition). Pearson International Edition, Upper Saddle River, New Jersey, USA

Lipton, M. and Lorch, J.W. (1992). "A Modest Proposal for Improved Corporate Governance." The Business Lawyer, 48, 1, pp.59 – 77.

Mark, J. L., & Daniel, E. K. (2022). Effect of Board Attributes on Earnings Management of Listed Health Firms in Nigeria. *Bingham University Journal of Accounting and Business, 7*(1), 102-115.

Ogboru, M. J. (2019). Asset quality and deposit money banks performance in Nigeria. *American international journal of business and management studies*, *1*(1), 38-47.

Onaolapo, A. R. (2012).Analysis of credit risk management efficiency in Nigerian commercial banking sector. *Far East Journal of Marketing and Management,9*(6),447-498.

Onguka, D., Iraya, C. M., & Nyamute, W. L. (2021). Corporate Governance, Capital Structure, Ownership Structure, And Corporate Value Of Companies Listed At The Nairobi Securities Exchange. *European Scientific Journal ESJ*, *17*(15). https://doi.org/10.19044/esj.2021.v17n15p300

Rose, C. 2017. Does female board representation influence firm performance?: the Danish evidence. Corporate Governance, 15(2), 404-413.

Shahroor, H. G., & Ismail, A. I. (2022). Corporate governance mechanisms and earnings management activities: evidence from the UAE banking sector. *FIIB Business Review*, 23197145221099099.

Shrader, C. B., Blackburn, V. B., & Illes, P. (2017). Women in Management and Firm Financial Value: An Exploratory Study. *Journal of Managerial Issues*, *9*(3), 355– 372.

Widijaya, V., (2022). Analysis of the effect of corporate governance and company characteristics on accounting conservatism in companies listed on the Indonesia stock exchange. *Journal of Managerial Issues*, *9*(3), 355– 372.

Yermack, D. (2016). Higher Market Valuation of Companies with a Small Board of Directors. *Journal of Financial Economics 40*(1), 185-211.