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Corporate board structure and financial performance of listed deposit money banks in Nigeria

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Abstract

This study investigated the effect of corporate board structure (CBS) on the financial performance (FP) of listed Deposit Money Banks (DMBs) in Nigeria between 2014 and 2023. The study focused on all 13 listed DMBs, using an ex post facto design and panel data methodology. Data on board size (BSZ), board independence (BID), board meetings (BMT), gender diversity (GDV), return on assets (ROA), and firm size (FSZ) were culled from the annual reports of the banks. Using fixed and random effects models, with diagnostic tests including Hausman, Breusch-Pagan, and Durbin-Watson, the study found that BID has a positive, marginally significant influence on ROA. In contrast, GDV, BSZ, and BMT exhibit negative, statistically insignificant effects. Firm size shows a significant adverse association with ROA. The study concluded that most CBS elements do not significantly influence FP. It recommended increasing the number of independent directors to strengthen governance and maintaining a BSZ that enhances efficiency without introducing managerial complexity.

Keywords: Board independence; Board meetings; Board size; Gender diversity; Return on assets

1. Introduction

Corporate governance (CG) has attracted attention in the last few years as a result of its effect on deposit money banks' (DMBs') financial performance (FP). As financial institutions that form the economy's backbone, their governance structures significantly influence their ability to drive growth, manage risks, and ensure sustainable profitability [1]. These governance frameworks are designed to address transparency, accountability, and risk management to enhance the resilience of financial institutions. Regulatory measures like the United States' Sarbanes-Oxley Act and the United Kingdom's Corporate Governance Code have bolstered banking operations by ensuring better oversight and mitigating risks associated with financial instability [2].

In a similar context, the governance reforms tailored to address unique economic and institutional challenges include South Africa's King IV report on corporate governance, which underscores the importance of ethical practices and integrated reporting are required to strengthen institutional stability and economic growth. Similarly, India's governance policies, spearheaded by the Reserve Bank of India, aim to tackle issues such as non-performing loans while promoting sound financial practices [3]. These efforts underscore the universal importance of governance in securing financial health across varying contexts.

The governance structures of Nigerian DMBs are essential, given the sector's exposure to systemic risks and regulatory challenges. Principles outlined by the Central Bank of Nigeria (CBN) focus on enhancing board accountability, risk management, and operational transparency. Despite progress, issues like insider lending and enforcement gaps persist,

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pointing to the necessity of ongoing enhancement of governance frameworks to strengthen Financial Performance and market confidence [4].

These frameworks emphasize transparency, risk management, and accountability, enabling financial institutions to navigate complex markets effectively. Financial Performance determines the overall health, efficiency, and ability to generate sustainable value [5].

The assessment of DMB Financial Performance provides insight into the profitability, asset utilization, and shareholder wealth, which are estimated by its metrics, including ROA, plays a unique role in evaluating a bank's outcomes. ROA measures how efficiently assets of a bank are employed to produce returns and is considered a vital gauge of a bank's operational efficiency [6]. A higher ROA indicates effective use of a bank's assets to create earnings, which is essential for sustainability and competitiveness [7].

The corporate board structure (CBS) is composed of various dimensions that shape its effectiveness and governance capabilities. These dimensions include aspects such as the structure, dynamics, and diversity of the board, each playing a part in influencing how choices are made and how the organization is steered toward achieving its goals [8]. In Deposit Money Banks, the board structure is not just about governance protocols, it is a key factor that can either help or affect strategic oversight and FP [9]. One factor that affects the ability of a board to function successfully is its size. The structure of corporate boards is relevant in driving the FP of Nigerian DMBs, particularly when measured through ROA. BSZ, as suggested by Suganya and Kengatharan [10], can offer a variety of expertise and perspectives that enrich decision-making, while excessively large boards risk inefficiency [11]. Conversely, Alabdullah et al. [12] warned that smaller boards may make swift decisions but lack diversity, limiting their strategic depth. The configuration of board size must therefore strike a balance between inclusivity and operational effectiveness.

Board independence is another crucial structural component, with Janang et al. [13] highlighting the importance of having non-executive directors who can ensure objective oversight. Independent directors help align executive decisions with shareholder interests and reduce conflicts [14]. In Nigeria's banking sector, such independence is vital for effective risk governance, transparency, and regulatory compliance [9]. These governance benefits enhance overall financial performance and accountability. Thus, the structure of independent members performs a strategic role in guiding bank performance outcomes.

Other board structure elements, such as meeting frequency and gender diversity, also contribute significantly to financial outcomes. Kanakriyah [15] stressed that frequent, well-organized board meetings can improve responsiveness, while excessive meetings without impact may hinder performance. Gender diversity is also gaining recognition as a value-adding governance factor, with balanced representation promoting innovation and enhanced making of decision [16]. The inclusion of females on boards is related to improved problem-solving and profitability [17]. Altogether, these structural components shape governance quality and drive ROA in Nigeria's DMBs [18, 19].

Studies CBS and FP show significant inconsistencies in findings, largely due to variations in study contexts, methodologies, and performance proxies. For instance, while Roffia et al. [19] and Bekiaris [8] found positive effects of BID and GDV on banks' FP, Musah and Adutwumwaa [17] reported an adverse link between GDV and FP in rural banks in Ghana. These divergent results suggest a contextual gap, particularly regarding how corporate governance dynamics differ across regions and sectors.

Methodological inconsistencies further contribute to the lack of consensus. Studies have employed a range of analytical techniques, from panel data regression as used by Okolie and Uwejeyan [20] to system GMM and OLS as deployed by Asare et al. [11], often leading to contrasting interpretations. This methodological gap undermines the generalizability and comparability of findings across the literature.

In addition, sector-specific dynamics remain underexplored, especially in the case of Nigerian DMBs, where governance structures appear insufficient to mitigate insolvency, risk, and poor profitability [9, 21]. Most studies concentrate on conglomerates, rural banks, or non-Nigerian contexts, limiting insights into Nigeria's unique regulatory and institutional environment. Addressing this sectoral gap with robust econometric models and sector-relevant variables will enhance both policy relevance and theoretical clarity.

This study is motivated by the persistent inconsistencies in empirical results on CBS and FP, particularly within the banking sector of Nigeria. The unique regulatory and institutional characteristics of Nigerian DMBs remain underexplored, creating a critical sectoral gap. Addressing this gap will provide context-specific insights that enhance governance reforms and financial stability in Nigeria's banking industry. This research examines how the CBS affects

the FP of Nigeria's listed DMBs, while it particularly sought to investigate how the CBS affects ROA. It also sought to ascertain how firm size controls the relationship between CBS and FP in Nigeria's listed DBMs.

2. Literature Review

2.1. Conceptual Review

2.1.1. Financial Performance (FP)

FP is pivotal in assessing a firm's sustainability and investment decisions, serving as a primary indicator of organizational health and survival [1]. It encompasses evaluations of liquidity and profitability, reflecting the collective efforts within an organization [22, 11]. Effective financial policies are established to maintain optimal capital structures, ensuring long-term performance [23]. FP also facilitates comparisons across industries and is crucial for stakeholders in evaluating economic goals and obligations [24, 25].

2.1.2. Return on Asset (ROA)

ROA measures how well a company uses its assets to produce profits, reflecting operational efficiency [26, 27]. A higher ROA suggests proficient asset management and is linked to strong corporate governance [28, 29]. It is calculated by dividing net income by total assets, providing insights into management's resource utilization [30, 31].

2.1.3. Concept of Corporate Board Structure in Deposit Money Banks (DMBs)

The corporate board structure, comprising executive and independent directors, is crucial for governance and strategic direction in DMBs [32, 33]. Independent directors offer unbiased oversight, essential for risk management and compliance in the banking sector [2]. Board committees like audit and risk management play specific roles in ensuring internal controls [34]. In Nigeria, the Central Bank's corporate governance code influences board composition and responsibilities [34]. CBS is represented by BSZ, BID, BMT, and GDV to estimate its influence on the FP of DMBs.

2.1.4. Board Size (BSZ)

BSZ affects governance dynamics and financial performance, with broader boards providing a variety of expertise but potentially facing coordination challenges [36, 17]. Smaller boards may enhance agility and decision-making efficiency [8]. The optimal board size should align with the bank's operational goals and regulatory environment [9, 37].

2.1.5. Board Independence (BID)

Board independence, characterized by non-executive directors without material ties to the company, is vital for objective decision-making and stakeholder protection [15, 1]. Independent directors boost accountability and transparency, which helps to enhance FP and risk management, particularly in the banking industry [14]. Higher board independence correlates with increased stakeholder trust and ethical standards [38]. Cultivating an independent board structure is essential for strategic oversight as well as enduring viability [39].

2.1.6. Board Meeting (BMT)

BMT plays a dynamic part in corporate governance by nurturing strategic decision-making and performance review, especially in DMBs [40, 41]. Their frequency and quality influence financial outcomes by enhancing risk assessment and oversight [9]. Independent directors add objectivity to discussions, strengthening governance [41]. Structured and inclusive meetings promote timely, informed decisions in dynamic banking environments [42, 23]. Existing research confirms that frequent, effective board meetings correlate with better FP [22, 43].

2.1.7. Gender Diversity (GDV)

GDV on boards enriches decision-making and contributes positively to financial performance in DMBs [11]. Women bring unique perspectives that enhance innovation and governance [39]. Their leadership fosters inclusivity, stakeholder trust, and boosts organizational image and profitability [17]. Gender-diverse boards improve communication and are more responsive to social responsibility issues [16]. Therefore, diversity serves both ethical and strategic goals in banking governance.

2.1.8. Firm Size (FSZ)

Firm size significantly influences financial success, operational efficiency, and strategic decisions, measurable through assets, revenue, or workforce size [44, 45]. While larger firms may gain from economies of scale and market power, they can also experience bureaucratic inefficiencies [46]. In the banking sector, FSZ affects lending capacity and risk diversification [47]. It also impacts corporate governance structures, with larger firms often having more comprehensive oversight mechanisms [12, 48].

2.2. Theoretical Framework

This study is grounded in agency theory, which offers a solid framework for comprehending the connection between CS and FP. Managers (agents), as suggested by Sobhan [23], might place their interests above those of shareholders (principals), which can lead to agency costs. According to agency theory, there is a need for effective corporate governance mechanisms, especially for an active, independent board, to ensure that managerial actions are aligned with shareholder interests [12]. Firm performance is influenced by the board's role in oversight, accountability, and strategic guidance, which helps mitigate agency conflicts [31]. Thus, agency theory provides a persuasive basis for assessing the impact of board structures on financial outcomes within the banking sector.

2.3. Empirical Review

Empirical evidence shows that CBS significantly influences FP. Studies by Okolie and Uwejeyan [20] and Onunaka et al. [27] demonstrated that BSZ and BID positively affect ROA. Effective use of board committees also enhances FP, while frequent board meetings may hinder it. These findings emphasize the importance of keeping an optimal CBS and being in compliance with regulatory guidelines, such as those from the CBN.

GDV is another key determinant of financial success. Sani [6] found that gender diversity positively influences ROA among Nigerian firms, while Bekiaris [8] showed that female board members in Greek banks positively affect ROA. In contrast, Musah and Adutwumwa [17] found that gender diversity adversely and significantly affects ROA of Ghanaian rural banks. These mixed findings propose that the effectiveness of GDV depends on institutional and cultural contexts.

FSZ controls the relationship between CBS and FP (ROA), shaping how governance mechanisms influence outcomes. Githaiga et al. [49] found that FSZ significantly affects the impact of CBS features on ROA. In contrast, Almashhadani and Almashhadani [46] reported an insignificant influence of firm size on ROA. These outcomes reveal that the role of FSZ in governance-performance dynamics is context-dependent.

3. Methodology

3.1. Research Design

This study used an ex post facto research design to evaluate the influence of CBS on the FP of DMBs in Nigeria. Using a panel data approach, the study incorporated both cross-sectional and time-series data to examine how CBS affect the FP indicator (ROA) in the Nigerian banking sector.

3.2. Population and Sample Size of the Study

The study’s population and sample size consist of all the listed 13 DMBs on the Nigerian Exchange Group (NGX).

3.3. Method of Data Collection

Data spanning from 2014 to 2023 on ROA proxy for FP and BSZ, BID, BMT, and GDV proxy for CBS; likewise, total assets were adopted as a proxy for FSZ, which were culled from the annual statements of the DMBs from the NGX official database.

3.4. Method of Data Analysis

Pre-analysis tests, such as the Hausman (HM) test, to identify the suitable estimation methods between random effects (RE) and fixed effects (FE) analysis for an efficient calculation of the independent variables' coefficients, were utilized. The heteroskedasticity (HET) was checked using the Breusch-Pagan test to identify if the variance of the residuals was consistent across observations. The Durbin-Watson (DW) test was also conducted to discover autocorrelation within the residuals to check for distortion in the reliability of regression estimates.

3.5. Model Specification

To achieve the objectives of the study, the model specification was specified by establishing a linear relationship between FP and CBS. The implicit form of the model is specified below:

Financial performance= *f*(corporate board structure)……..3.1

Explicitly:

ROA = *f* (board size, board independence, board meeting, gender diversity, firm size)……3.2

Econometrically:

$$ROA_{it} = \theta_0 + \theta_1 BSZ_{it} + \theta_2 BID_{it} + \theta_3 BMT_{it} + \theta_4 GDV_{it} + \theta_5 FSZ_{it} + \epsilon_{it} \ldots\ldots\ldots\ldots 3.3$$

Where:

- ROA is return on assets
- BSZ is board size
- BID is board independence
- BMT is board meeting
- GDV is gender diversity
- FSZ is firm size
- θ_0 is the intercept term representing the constant component of performance.
- θ_{1-5} are the coefficients of the predictors to be estimated.
- ϵ is the white noise.
- i is the 13 DMBs listed on the NGX.
- t is time period (2014-2023).

4. Data Analysis and Presentation of Results

4.1. Descriptive Statistics

Table 1 Summary of Descriptive Statistics

	ROA	FSZ	BSZ	BMT	BID	GDV
Mean	20.94277	8.50E+08	12.77622	6.055944	0.637633	13.01
Median	0.032329	4.92E+08	13.00000	5.000000	0.583333	13.00
Maximum (max.)	469.0000	6.31E+09	20.00000	16.00000	0.941176	20.00
Minimum(min.)	-0.156292	2216337.	6.000000	1.000000	0.500000	6.00
SD σ	75.33528	1.05E+09	3.042931	2.352033	0.117830	2.93
Skewness	4.133064	1.891418	0.218285	1.376369	1.008104	0.1004
Kurtosis	20.63866	7.852313	2.254315	5.667272	2.830697	2.4318
Jarque-Bera (JB)	2260.896	225.5515	4.448729	87.53927	24.39198	2.1644
P-value	0.000000	0.000000	0.108136	0.000000	0.000005	0.3388
Sum	2994.816	1.22E+11	1827.000	866.0000	91.18149	1861.0
Sum Sq. Dev.	805907.4	1.57E+20	1314.839	785.5524	1.971514	1221.97
Observations	130	130	130	130	130	130

Source: Authors' Computation (2025)

The result above in Table 4.1 describes the descriptive statistics for the CBS and FP of the sampled firms. ROA has a mean of 20.94 and a very high SD (σ) of 75.34, denoting extreme dispersion in asset profitability across the sample. The values range from -0.16 to 469.00, with a highly skewed distribution (skewness = 4.13) and high kurtosis (20.64), again pointing to extreme values and potential outliers. The Jarque-Bera test statistic (2,260.90; $p < 0.01$) strongly rejects normality. FSZ, measured in monetary terms, has a mean of approximately ₦850 million and ranges from about ₦2.2 million to over ₦6.3 billion. The standard deviation of over ₦1.05 billion reflects a high level of disparity in firm sizes. The variable is positively skewed (1.89) and leptokurtic (7.85), indicating the presence of large firms that substantially deviate from the mean. The Jarque-Bera statistic (225.55; $p < 0.01$) confirms a non-normal distribution.

BSZ records a mean of 12.78 (approximately 13 members), with a relatively low σ of 3.04, meaning less variability in the number of directors across firms. The values range from 6 to 20, and the distribution appears nearly symmetric (skewness = 0.22) and mildly platykurtic (kurtosis = 2.25). The Jarque-Bera statistic (4.45; $p = 0.108$) does not reject the null hypothesis of normality at the 5% significance level. BMT has an average of approximately 6.06 meetings per year, with a σ of 2.35. The min. and max. numbers of meetings are 1 and 16, respectively. The variable is positively skewed (1.38) and has moderate kurtosis (5.67), indicating a heavy-tailed distribution. The Jarque-Bera test (87.54; $p < 0.01$) confirms the distribution deviates significantly from normality.

BID has an average value of 0.64, showing that approximately 64% of the board members are independent, on average. The values range from 0.50 to 0.94, with a σ of 0.12, signifying moderate variation in board independence across firms. The distribution is moderately skewed (1.01) and slightly leptokurtic (2.83). The Jarque-Bera test statistic (24.39; $p < 0.01$) indicates that BID is also not normally distributed.

GDV has a mean value of 13.01, suggesting that, on average, approximately 13% of board members across the sampled firms are women. The median value is also 13.00, indicating a relatively symmetric distribution around the central tendency. The min. and max. values are 6.00 and 20.00, respectively, reflecting a moderate spread in gender representation across boards. The σ of 2.93 indicates a relatively low to moderate variation among firms regarding female board participation. The distribution is nearly symmetric with a skewness of 0.10, and slightly platykurtic with a kurtosis of 2.43, suggesting thinner tails compared to a normal distribution. The JB stat. (2.16; $p = 0.34$) shows no significant departure from normality, confirming that the distribution of GDV across firms approximates a normal curve.

4.2. Hausman Test

Table 2 Result of Hausman (HM) Test

Correlated Random Effects - Hausman Test			
Equation: Untitled			
Test cross-section random effects			
Test Summary	**Chi-Sq. Statistic**	**Chi-Sq. d.f.**	**Prob.**
Equation 3.3	10.755316	5	0.0065

Source: Authors' Computation (2025)

The result above in Table 4.2 reports the HM test, which is applied to differentiate the consistency and efficiency of the FE and RE models for panel data estimations. For Equation 3.3, the HM test statistic is 10.7553 with 5 degrees of freedom and a p-value of $0.0065 < 0.05$. The null hypothesis is accepted at the 5% level, implying that the FM model is appropriate.

4.3. Panel Regression Analysis

Table 3 Result of Panel Analysis (Fixed Effect) for Equation 3.3

Dependent Variable: ROA				
Variable	**Coefficient**	**Std. Error**	**t-Statistic**	**Prob.**
GDV	-0.979828	2.823005	-0.347087	0.7291
BSZ	-0.690378	2.949109	-0.234097	0.8153
BMT	-0.829370	1.434121	-0.578313	0.5641
BID	53.67177	31.42401	1.707986	0.0901
FSZ	-6.107480	3.00E-09	-4.505969	0.0000
C	24.81545	33.37419	0.743552	0.4585
R-squared	0.880554	Mean dependent var		20.94277
Adjusted R-squared	0.864309	S.D. dependent var		75.33528
S.E. of regression	27.75067	Akaike info criterion		9.601615
Sum squared resid	96262.48	Schwarz criterion		9.974560
Log likelihood	-668.5154	Hannan-Quinn criter.		9.753162
F-statistic	54.20572	Durbin-Watson stat		0.646917
Prob(F-statistic)	0.000000			

Source: Authors' Computation (2025)

Table 3 contains results from a panel regression analysis utilizing the FE model, which evaluated how CBS affects the ROA of the DMBs in question. With a coeff of -0.9798 and a p-value of 0.7291, GDV exhibits an adverse relationship with ROA that is not statistically significant, assuming other factors remain constant. This implies that within the context of the sampled firms, variations in the percentage of female directors on the board do not significantly influence firm ROA. In the same vein, BSZ shows a negative coeff of -0.6904 and is statistically insignificant (p = 0.8153), implying that the number of directors on the board does not have a significant impact on ROA. BMT also indicates an adverse relationship with ROA (coefficient = -0.8294; p = 0.5641), suggesting that increased board meeting frequency does not significantly enhance ROA.

In contrast, there is a positive correlation between BID and ROA, indicated by a coefficient of 53.6718 and a p-value of 0.0901. This relationship, while only marginally significant at the 10% level, suggests that companies with a greater share of independent directors tend to show improved profitability. This outcome underscores the possible worth of board independence for bolstering oversight and strategic decision-making, potentially leading to better financial outcomes.

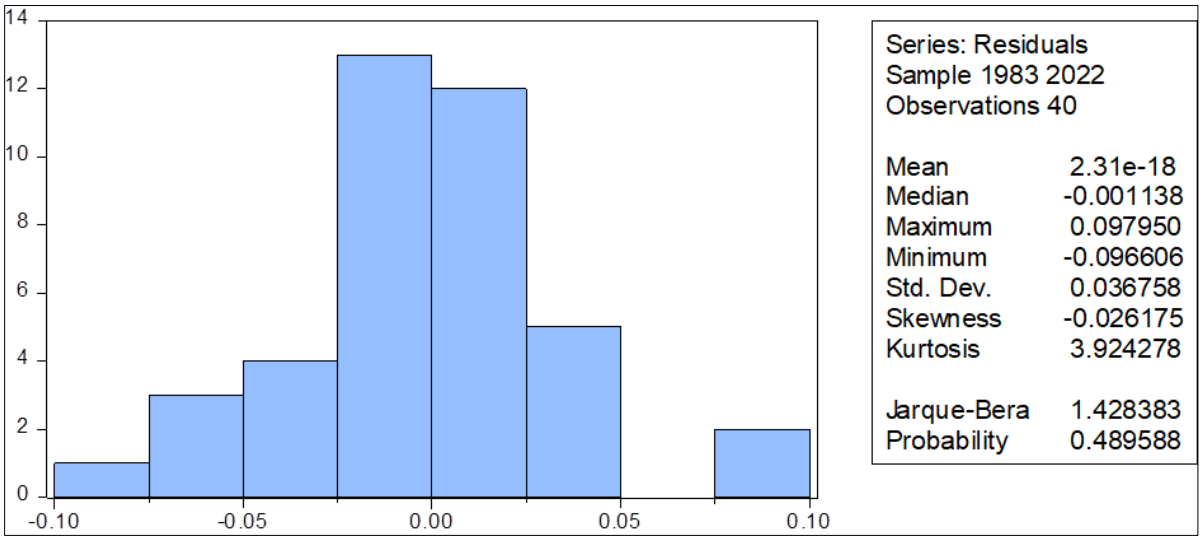
It is worth mentioning that FSZ, when assessed based on the log of total assets, exhibits a robust and statistically significant inverse correlation with ROA (coeff = -6.1075; p = 0.0000). This implies that a 1% increase in FSZ will lead to a significant 6.10% fall in ROA, suggesting that larger firms tend to have lower ROA.

The model demonstrates a strong fit, as evidenced by the R2 value of 0.8806, which shows that around 88.1% of the variance in ROA can be attributed to the explanatory variables. With an F-statistic of 54.2057 and a p-value of 0.0000, the model is confirmed to be jointly significant at the 1% level, indicating that the CBS variables included significantly account for variations in FP. A Durbin-Watson statistic value of 0.6469 points to a positive autocorrelation in the residuals.

4.4. Residual Normality Test

Figure 1 presents an outcome of the residual normality test for Equation 3.3; the residuals' histogram shows they are centered around zero, evidenced by a mean value of about 0 (2.31e−18). The distribution looks symmetrical, with the median near zero (−0.001138) and a skewness value of −0.026175 that confirms minimal asymmetry. The SD of 0.036758 implies that the residuals are closely grouped around the mean. In addition, the Jarque-Bera statistic of

1.428383 and its p-value of 0.489588 > 0.05 indicate that the residuals are likely to be normally distributed. This suggests that there is no considerable skewness or excess kurtosis, which bolsters the foundational assumptions of the regression model and confirms the dependability of the estimation outcomes.



Source: Researcher's Computation (2024)

Figure 1 Residual Normality Test for Equation 3.3

4.5. Residual Cross-Section Dependence Test

Table 5 Result of Breusch-Pagan LM Cross-Sectional Test

Residual Cross-Section Dependence Test			
Null hypothesis: No cross-section dependence (correlation) in residuals			
Test Summary	**Statistic**	**d.f.**	**Prob.**
Equation 3.3	-0.3683	78	0.3726

Source: Authors' Computation (2025)

The results displayed in Table 4.5 present the findings of the Breusch-Pagan Lagrange Multiplier (LM) test, which assessed cross-sectional dependence in the residuals of the panel regression models examined in Equation 3.3. The test assessed the null hypothesis that the residuals are independent across cross-sectional units, meaning there is no contemporaneous correlation among the residuals of different firms in the panel.

The test statistic for Equation 3.3 is -0.3683, and the p-value = 0.3726 > 0.05; we accept the null hypothesis of no cross-sectional. This result suggests that the residuals from the regression model for Equation 3.3 are independently distributed across firms, which means that firm-specific shocks do not significantly impact other firms in the sample.

5. Discussion of Findings

This study investigated how the CBS affects the FP of listed DMBs on NGX, with ROA serving as a measure of FP. Based on the findings, Table 4.2 indicates that the GDV coeff was negative and not insignificant (θ = -0.9798, p = 0.7291), suggesting that having women on corporate boards does not significantly improve asset returns. This is not in agreement with the results of Musah and Adutwumwa [17], who discovered that there was no significant connection between GDV and ROA among firms.

From the lens of agency theory (AT), while GDV is often proposed to improve board independence and lessen agency problems, this finding suggests that mere diversity in composition may not translate into effective monitoring unless accompanied by relevant expertise and influence within the boardroom.

Board size (BSZ) also displayed an adverse and insignificant relationship with ROA (coeff = -0.6904, p = 0.8153), suggesting that increasing BSZ does not enhance ROA. This result is in line with Kyere and Ausloos [31], who found that excessively large boards may result in coordination inefficiency that may limit effective oversight and reduce firm efficiency. This is in accordance with AT, which posits that a larger board can weaken individual accountability, hinder the board's effectiveness in monitoring management, and worsen agency problems.

It was discovered that BMT had a negative correlation with ROA (θ=-0.8294, p = 0.5641), although this correlation lacked statistical significance. This corroborates the results of Okolie and Uwejeyan [20], who discovered that BMT adversely influences FP in Nigerian firms, emphasizing the importance of meeting quality over quantity. From the perspective of stewardship theory, while frequent meetings could be seen as a mechanism for aligning management and shareholder interests, their effectiveness depends on the quality, rather than the quantity, of such interactions. Hence, this result may indicate inefficiencies in how meetings are conducted rather than their frequency per se.

BID positively affects ROA (θ = 53.6718, p = 0.0901) significantly at 10%. This aligns with findings of Bekiaris [8], Onunaka et al. [27], and Wahyuni and Mayliza [1], who found that BID is associated with better financial outcomes, especially in banking and emerging markets. This result conforms with AT, which posits that having independent, non-executive directors helps reduce conflicts of interest between managers and shareholders, thus enhancing governance outcomes and FP.

GDV is negatively and statistically insignificant (θ = -0.9798, p = 0.7291), indicating that the presence of women on corporate boards does not significantly improve asset returns. This result contrasts with the results of Bekiaris [8] and Sani [6], who observed a positive and significant impact of female board members on ROA, suggesting that the influence of board gender diversity may vary by industry, national context, and methodological approach.

FSZ had a significant negative influence on ROA (θ = -6.1075, p = 0.0000). This supports the argument by Githaiga et al. [49] that bigger firms may suffer from diseconomies of scale and increased bureaucracy, which hinder operational efficiency. It also implies that CBS alone may not directly improve ROA unless paired with strategic investments in intellectual capital, particularly in large, complex banking organizations.

6. Conclusion

This paper investigated how the CBS affects the FP of Nigeria's listed DMBs over a decade. The study found that the CBS, as implied by factors such as GDV, BSZ, BMTs, and BID, had varying effects on FP. Specifically, while BID demonstrated a positive and marginally significant influence on ROA, other board characteristics, including GDV, BMT, and BSZ, had an adverse and insignificant influence on ROA. Moreover, the study showed that FSZ had a significant adverse effect on ROA, indicating possible diseconomies of scale in larger banks. The study concludes that there is no significant effect of CBS on the FP of DMBs during the examined period.

Recommendations

Banks should prioritize the inclusion of more independent non-executive directors to enhance objectivity in strategic decision-making and ensure a stronger alignment with shareholders' interests. Furthermore, banks ought to keep a BSZ that is optimal for efficiency, which does not result in bureaucratic delays.

Institutions should foster inclusive environments that promote the active participation of female directors by ensuring they possess relevant industry experience, leadership capacity, and are empowered to contribute meaningfully to board deliberations.

Banks should ensure that the integral components of board engagements focus on performance reviews, risk assessments, and timely decision-making that will improve the quality, relevance of the meetings. DMBs' management should implement robust internal controls and performance monitoring frameworks to manage operational complexity and avoid diseconomies of scale as banks grow.

The CBN and other regulatory bodies should continue to enforce corporate governance codes while encouraging dynamic reforms that reflect the evolving needs of the banking sector to promote transparency, accountability, and board effectiveness across all tiers of bank management.

Compliance with ethical standards

Disclosure of conflict of interest

No conflict of interest to be disclosed.

Statement of informed consent

Informed consent was obtained from all individual participants included in the study.

References

[1] Wahyuni, S., & Mayliza, R., (2023). The effect of board of directors and independent board of commissioners on financial performance of banking company. INVEST: Jurnal Inovasi Bisnis dan Akuntansi, 4(1), 164-177. https://tinyurl.com/ywvaxdxt.

[2] Molla, M. I., Islam, M. S., & Rahaman, M. K. B. (2023). Corporate governance structure and bank performance: evidence from an emerging economy. Journal of Economic and Administrative Sciences, 39(3), 730-746. https://tinyurl.com/5f5pkyfw

[3] Pandya, N. P. (2022). The performance analysis of Indian commercial banks: An empirical approach. Doctoral Dissertation of Maharaja Sayajirao University, Baroda, India. https://tinyurl.com/mr2ysnyf

[4] Olateju, D. J., & Tijani, B. R. (2024). Effect of corporate governance on banking system stability in Nigeria. International Journal of Business Studies, 8(2), 144-159. https://tinyurl.com/45x4kk5f

[5] Kevser, M., & Doğan, M. (2021). The impact of ownership concentration on bank profitability: Is the effect linear or non-linear? An empirical evidence for Turkey. Journal Global Policy and Governance, 10(2), 3-20. https://tinyurl.com/57zf78r2.

[6] Sani, A. (2021). Board diversity and financial performance of the Nigerian listed firms: A dynamic panel analysis. Journal of Accounting and Business Education, 6(1), 1-13. https://tinyurl.com/y9dasfn4

[7] Abdullah, H., & Tursoy, T. (2023). The effect of corporate governance on financial performance: evidence from a shareholder-oriented system. Interdisciplinary Journal of Management Studies (Formerly known as Iranian Journal of Management Studies), 16(1), 79-95. https://tinyurl.com/3hynh366

[8] Bekiaris, M. (2021). Board structure and firm performance: An empirical study of Greek systemic banks. Journal of Accounting and Taxation, 13(2), 110-121. https://tinyurl.com/bp594zmt

[9] Kafidipe, A., Uwalomwa, U., Dahunsi, O., & Okeme, F. O. (2021). Corporate governance, risk management and financial performance of listed deposit money banks in Nigeria. Cogent Business & Management, 8(1), 1888679 https://tinyurl.com/mujsfs58.

[10] Suganya, S. J., & Kengatharan, L. (2017). Board structure and financial performance of listed finance companies in Sri Lanka. International Journal of Accounting and Financial Reporting, 7(2), 292. https://tinyurl.com/mktch9x5

[11] Asare, N., Muah, P., Frimpong, G., & Anyass, I. A. (2023). Corporate board structures, financial performance and stability: Evidence from banking markets in Africa. Journal of Money and Business, 3(1), 43-59. https://tinyurl.com/3a5n6snc

[12] Alabdullah, T. T. Y., Ahmed, E. R., & Kanaan-Jebna, A. (2022). Corporate governance system and firm financial performance. Acta Scientific Computer Sciences, 4(6). 97-103. https://tinyurl.com/4238j4jf

[13] Janang, J. S., Rani, N. B. A., Yeng, S. K., & Khalid, F. D. B., (2022). Board leadership structure and earnings quality: A study from the Malaysian banking sector. International Journal of Academic Research in Accounting, Finance and Management Sciences, 12(2), 728-747 https://tinyurl.com/mspff3tu.

[14] Habtoor, O. S. (2021). The influence of board ownership on bank performance: evidence from Saudi Arabia. The Journal of Asian Finance, Economics and Business, 8(3), 1101-1111. https://tinyurl.com/yc2k5vdy

[15] Kanakriyah, R. (2021). The impact of board of directors' characteristics on firm performance: a case study in Jordan. The Journal of Asian Finance, Economics and Business, 8(3), 341-350 https://tinyurl.com/bdh2p6k9.

[16] Alashe, A. K., Raheed, L. O., & Bello, A. O. (2021). The board structure and financial performance of selected listed consumers' goods firms: Evidence from Nigeria. International Journal of Economics and Financial Management, 6(1). 1-16. https://tinyurl.com/y27fdxzk

[17] Musah, A., & Adutwumwaa, M. Y. (2021). The effect of corporate governance on the financial performance of rural banks in Ghana. International Journal of Financial, Accounting, and Management, 2(4), 305-319. https://tinyurl.com/4x3w2frv.

[18] Ramdani, R., Mai, M. U., & Muflih, M. (2023). The effect characteristics board of directors on the financial performance of Sharia commercial banks in Indonesia. Indonesian Journal of Economics and Management, 3(2), 418-438. https://tinyurl.com/yc873tpp.

[19] Roffia, P., Simón-Moya, V., & Sendra García, J. (2022). Board of directors attributes: Effects on financial performance in SMEs. International Entrepreneurship and Management Journal, 18(3), 1141-1172. https://tinyurl.com/wkj6dbkk

[20] Okolie, A. O., & Uwejeyan, J. C. (2022). Board characteristics and financial performance of conglomerates in Nigeria. European Journal of Business and Management Research, 7(2), 12-18. https://tinyurl.com/msez495x

[21] Nairametrics. (2022, October 20). CBN sells Polaris Bank to SCIL for N40 billion. Nairametrics. https://tinyurl.com/4kyfxsuc

[22] Aliyu, A. B., Yahaya, O. A., & Mohammed, N. A. (2021). Board features and financial performance of Nigerian banks. International Journal of Finance & Banking Studies (2147-4486), 10(1), 11-19. https://tinyurl.com/yc29njuu

[23] Sobhan, R. (2021). Board Characteristics and Firm Performance: Evidence from the Listed Non-Banking Financial Institutions of Bangladesh. International Journal of Management, Accounting & Economics, 8(1), 25-41. https://tinyurl.com/yc2zup24

[24] Amrani, O., Najab, A., & Azmi, M. (2022). The impact of governance structure on bank performance: A cross-country panel analysis using statistical learning algorithms. Procedia Computer Science, 203, 520-524. https://tinyurl.com/498nxzz5

[25] Barauskaite, G., & Streimikiene, D. (2021). Corporate social responsibility and financial performance of companies: The puzzle of concepts, definitions and assessment methods. Corporate Social Responsibility and Environmental Management, 28(1), 278-287. https://tinyurl.com/mpjj87uj

[26] Mehzabin, S., Shahriar, A., Hoque, M. N., Wanke, P., & Azad, M. A. K. (2023). The effect of capital structure, operating efficiency and non-interest income on bank profitability: New evidence from Asia. Asian Journal of Economics and Banking, 7(1), 25-44. https://tinyurl.com/mupd5f2y

[27] Onunaka, U. F., Nwaorgu, I. A., & Okezie, S. O. (2024). Board structure and financial performance of listed deposit money banks in Nigeria. International Journal of Economics and Financial Management (IJEFM), 9(2), 200-215. https://tinyurl.com/2977r5n7

[28] Muhammad, M. I., Emmanuel, J., Bashir, M. I., & Ahmed, A. A. (2023). Board diversity and dividend policy of listed health care companies in Nigeria: The moderating effect of financial performance. Journal of Economics, Management and Trade, 29(7), 111-127. https://tinyurl.com/duju4vwx

[29] Ouma, C. O., Makori, D., & Aluoch, M. O. (2024). Firm characteristics and financial performance of microfinance banks in Kenya. International Academic Journal of Economics and Finance, 4(3), 164-193. https://tinyurl.com/z8c2dhxu

[30] Isaac, O. I., & Ayodeji, A. (2024). Capital structure, board characteristics and firm performance of listed non-financial companies. International Journal of Research and Innovation in Social Science, 8(1), 1776-1789 https://tinyurl.com/vk6s5t89.

[31] Kyere, M., & Ausloos, M. (2021). Corporate governance and firms' financial performance in the United Kingdom. International Journal of Finance & Economics, 26(2), 1871-1885 https://tinyurl.com/33bzrye5

[32] Adegbayibi, A. T., & Adelowotan, M. O. (2024). Corporate governance and financial performance of listed deposit money banks in West Africa. Acta Commercii-Independent Research Journal in the Management Sciences, 24(1), 1294. https://tinyurl.com/mryua65k

[33] Efunniyi, C. P., Abhulimen, A. O. Obiki-Osafiele, A. N., Osundare, O. S., Agu, E. E., & Adeniran, I. A., (2024). Strengthening corporate governance and financial compliance: Enhancing accountability and transparency. Finance & Accounting Research Journal, 6(8), 1597-1616. https://tinyurl.com/mva6xtm4

[34] Asri, M. (2024). Exploring the impact of committee structure and composition on corporate governance practices. Advances in Managerial Auditing Research, 2(1), 26-39. https://tinyurl.com/cmrsrd7a

[35] Aernan, J. E., Emengini, S. E., & Okonkwo, B. S. (2023). Board characteristics and financial performance of DMBs: Evidence from Nigeria. East African Journal of Business and Economics, 6(1), 47-58. https://tinyurl.com/ycxf9hw8

[36] Dagunduro, M. E., Dada, S. A., & Asubiojo, A. O. (2023). Corporate governance, board attributes, and financial performance: A study of listed insurance companies in Nigeria. Journal of Harbin Engineering University, 44(11), 1160-1170. https://tinyurl.com/4mrn2by3

[37] Olufemi, O. V., Matthew, A. O., & Motunrayo, A. Y. (2023). An assessment of board attributes and financial performance of listed deposit money banks in Nigeria. International Journal of Economics, Business and Management Research, 7(10), 175-195. https://tinyurl.com/ycz4esfy.

[38] Nwanne, T. F. I., (2020). Empirical Investigation of Corporate Board Characteristics and Deposit Money Banks (DMBS) Performance in Nigeria: Economics and Management 4, 26-47. https://tinyurl.com/mhyd3dyp

[39] Alodat, A. Y., Salleh, Z., Nobanee, H., & Hashim, H. A. (2023). Board gender diversity and firm performance: The mediating role of sustainability disclosure. Corporate Social Responsibility and Environmental Management, 30(4), 2053-2065. https://tinyurl.com/bdhb5j7b

[40] Akpokerere, O. E., & Obonofiemro, G. (2022). Board characteristics: Implications on financial performance of deposit money banks in Nigeria. Finance & Accounting Research Journal, 4(4), 144-161 https://tinyurl.com/udz8yvy6

[41] Erena, O. T., Kalko, M. M., & Debele, S. A., (2022). Corporate governance mechanisms and firm performance: empirical evidence from medium and large-scale manufacturing firms in Ethiopia. Corporate Governance: The International Journal of Business in Society, 22(2), 213-242. https://tinyurl.com/3yzhhx3e

[42] El-Chaarani, H., Abraham, R., & Skaf, Y., (2022). The impact of corporate governance on the financial performance of the banking sector in the MENA (Middle Eastern and North African) region: An immunity test of banks for COVID-19. Journal of Risk and Financial Management, 15(2), 82. https://tinyurl.com/t5ts4v56

[43] Mlay, L., Temu, S., & Mataba, L. (2023). The impact of board characteristics on the financial performance of savings and credit co-operative societies in Arusha and Dar es Salaam, Tanzania. Tanzanian Economic Review, 13(1), 130-155. https://tinyurl.com/mpa4zue9

[44] Jannah, S. M., & Sartika, F. (2022). The effect of good corporate governance and company size on firm value: Financial performance as an intervening variable. International Journal of Research in Business and Social Science, 11(2), 241-251 https://tinyurl.com/3rd7yw7k.

[45] Nguyen, T. T. C., Le, A. T. H., & Nguyen, C. V. (2023). Internal factors affecting the financial performance of an organisation's business processes. Business Process Management Journal, 29(5), 1408-1435. https://tinyurl.com/3vwxaw36

[46] Almashhadani, M., & Almashhadani, H. A. (2022). The beneficial of firm size, board size, ownership structure, and independence in developing markets' firm performance: Evidence from Asia. International Journal of Business and Management Invention, 11(7), 88-92. https://tinyurl.com/4w4afj9z

[47] Eni-Egwu, C. O., James, M. C., & Beatrice, E. C. (2022). Impact of selected corporate governance variables on the financial performance of selected quoted deposit money banks in Nigeria. ARRUS Journal of Social Sciences and Humanities, 2(1), 32-46. https://tinyurl.com/yuurzfra

[48] Apochi, J. G., Mohammed, S. G., & Yahaya, O. A. (2022). Ownership structure, board of directors and financial performance: Evidence in Nigeria. Global Review of Accounting and Finance, 13(1), 77-98. https://tinyurl.com/prabf579

[49] Githaiga, P. N., Muturi Kabete, P., & Caroline Bonareri, T. (2022). Board characteristics and earnings management. Does firm size matter?. Cogent Business & Management, 9(1), 2088573. https://tinyurl.com/4ymbk3k3