

Board size and board independence as determinants of financial statement fraud prevention in Nigerian deposit money banks

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Abstract

Purpose: This study examined board size and board independence as determinants of financial statement fraud prevention in Nigerian deposit money banks. The objective was to investigate how board size and board independence influence the prevention of financial statement fraud.

Methodology: The study employed a quantitative research design using secondary data obtained from the annual reports of twelve listed deposit money banks in Nigeria covering a ten-year period from 2014 to 2023. The data were analysed using descriptive statistics, correlation analysis, and panel regression techniques based on a fixed-effect model.

Results and conclusion: The findings revealed that both board size and board independence had significant positive effects on financial statement fraud prevention. These results suggested that larger boards and a higher proportion of independent directors enhanced oversight capacity and reduced the incidence of fraudulent reporting. The study concluded that strong board governance mechanisms promote transparency and integrity in financial reporting.

Implication of findings: The findings imply that banks and regulatory authorities should prioritize maintaining optimally sized and independent boards to strengthen fraud prevention frameworks. This may lead to more effective monitoring, reduced financial misstatements, and improved stakeholder confidence in the Nigerian banking sector.

Keywords: Board Size, Board Independence, Financial Statement Fraud, Corporate Governance, Deposit Money Banks.

1. Introduction

Financial statement fraud continues to pose a formidable threat to the credibility and stability of financial systems, particularly within emerging economies where institutional mechanisms remain relatively weak. Within the Nigerian banking sector, the magnitude of misreporting, overstated earnings, and concealed liabilities has generated systemic risks capable of undermining public trust and market integrity. Corporate governance mechanisms have long been recognised as the foremost line of defence against fraudulent reporting, offering a framework for management oversight, transparency enhancement, and internal control reinforcement (Sinebe & Jeroh, 2023; Abdul Halim et al., 2024; Akpootu & Yusuf). The board of directors, as the apex organ of corporate governance, bears the ultimate responsibility for ensuring that financial reports faithfully represent the firm's financial position and performance. However, recurring episodes of misstatement and manipulation have highlighted persistent governance deficiencies. Instances of creative accounting, asset inflation, and concealment of non-performing loans in financial institutions have exposed the fragility of board monitoring structures and their capacity to prevent financial-statement fraud (Chukwuma et al, 2025; Umanah et al., 2023; Ebaid, 2023).

The composition of the board – specifically its size and independence – has been identified as a fundamental determinant of its monitoring effectiveness, information processing capability, and ability to resist managerial dominance. According to Ebaid (2023), the configuration of the board significantly influences its oversight strength, as an appropriately sized and independent board improves managerial accountability and the quality of financial disclosures. Larger boards may enhance deliberation and bring

diverse expertise, improving the quality of decision-making; however, they may also suffer from coordination difficulties, diluted accountability, and reduced agility in responding to complex fraud signals (Arum & Wendry, 2024; Umanah et al., 2023). Conversely, the inclusion of independent non-executive directors strengthens objective monitoring and minimises collusive behaviour between executive management and the board (Abdul Halim et al., 2024; Sinebe & Jeroh, 2023). This delicate balance between board size and independence continues to shape scholarly debates regarding optimal board composition for fraud deterrence.

In emerging-market contexts such as Nigeria, the prevalence of weak regulatory enforcement, low transparency, and high management discretion heightens the relevance of analysing board characteristics in curbing financial-statement fraud. Empirical evidence from emerging economies supports the notion that board independence negatively influences the likelihood of fraudulent reporting, as independent directors tend to challenge management actions and demand higher reporting quality (Ebaid, 2023). In contrast, some studies have shown that larger boards may be positively associated with the incidence of fraud, possibly due to coordination inefficiencies and collective inaction (Arum & Wendry, 2024). The findings of Ebaid (2023) in an emerging market context corroborated these outcomes, showing that while independence reduced fraud probability, board size exhibited a positive association with fraud likelihood. These contrasting relationships suggest that board size and independence may operate in different directions and require simultaneous evaluation to determine their combined effect on fraud prevention.

In Nigeria, board structure and governance quality have received increasing scholarly attention owing to recurrent cases of misreporting, insider abuse, and corporate failure in the financial system. The study by Obeitoh et al. (2023) on listed non-financial firms in Nigeria reported that both board size and independence had a significant negative effect on real earnings manipulation, indicating their potential role in reducing unethical financial practices. However, since the study focused on earnings management rather than outright fraud, it did not capture the broader dimensions of deliberate misrepresentation. Similarly, Sinebe and Jeroh (2023) examined listed firms in Nigeria and found that while independent directors significantly reduced financial-statement fraud risk, board size exerted no statistically significant influence, suggesting inconsistent relationships among governance variables. These mixed outcomes imply that board size and independence may not always align in their effects, and their joint influence on fraud prevention within the banking sector remains underexplored (Ali et al., 2025; Umanah et al., 2023).

Despite a growing volume of research on corporate governance and earnings management, relatively few empirical studies explicitly address the prevention of financial-statement fraud – an area distinct from mere earnings smoothing – in Nigeria's deposit money banks. Fraud detection models such as the Beneish M-score or other forensic tools are rarely applied in Nigerian governance research (Setiawan et al., 2024; Ebaid, 2023). Arum and Wendry (2024) found in Indonesian listed firms that both board size and independence were significantly associated with fraud-likelihood measures, reinforcing the need to extend such analysis to Nigeria's financial sector. However, the limited Nigerian evidence often merges earnings management and fraud into a single construct, thereby constraining the depth of fraud-specific insights. Studies such as Chukwuma et al. (2025), which examined corporate governance and fraud in listed Nigerian banks, revealed that board size and gender diversity were not statistically significant in explaining fraud, while independent directors and audit committee independence significantly influenced fraud likelihood. This divergence underscores the complexity of governance–fraud relationships and the necessity to re-evaluate these linkages using a more focused methodological lens.

Several research gaps have emerged. First, sectoral differences between financial and non-financial firms warrant independent investigation, as banking institutions operate under stricter regulations, heightened fiduciary responsibility, and complex risk exposure. Secondly, methodological weaknesses persist due to overreliance on traditional proxies of earnings management rather than forensic fraud indicators (Setiawan et al., 2024). Thirdly, contextual variation in governance dynamics suggests that findings from non-financial firms may not generalise to the banking sector, where monitoring demands and regulatory expectations differ significantly (Orji-Solomon & Doshiro, 2024). For instance, Orji-Solomon and Doshiro (2024) examined the effect of board size and independence on intellectual capital disclosure among Nigerian conglomerates and observed that governance structures influenced disclosure practices, though this did not extend to fraud prevention. Likewise, Nwafor and Nworie (2025) highlighted the growing importance of board composition in risk management across Nigerian banks, emphasising that effective board oversight mechanisms could reduce operational and financial risks that may otherwise manifest as misreporting. These studies collectively reinforce the need for contemporary evidence on how board structure directly affects fraud prevention within Nigerian deposit money banks.

The regulatory landscape in Nigeria further accentuates the significance of board governance. Frequent changes in corporate governance codes, heightened scrutiny by the Central Bank of Nigeria (CBN), and recurring cases of bank distress, recapitalisation, and consolidation have underscored the importance of sound oversight mechanisms. According to Nwafor and Nworie (2025), the Nigerian banking industry's exposure to governance risk necessitates continuous empirical evaluation of board attributes that ensure transparency and accountability. Similarly, Ali et al. (2025) maintained that an effectively constituted board serves as a crucial internal governance tool that mitigates the risk of fraudulent financial practices through enhanced independence and board diversity. Yet, despite regulatory reforms, empirical research confirming the extent to which these board attributes reduce financial-statement fraud remains limited. This limitation is particularly pronounced given that Nigerian banks operate within a highly competitive and politically influenced environment that may foster ethical compromises and management opportunism.

Moreover, the extant evidence shows contradictory patterns concerning the effect of board size on financial-statement fraud. While some studies reported that larger boards facilitate better oversight due to diversity in skills and expertise (Umanah et al., 2023; Ebaid, 2023), others have argued that excessively large boards hinder effective monitoring due to coordination difficulties and bureaucratic inertia (Arum & Wendry, 2024; Sinebe & Jeroh, 2023). Similarly, while board independence has been consistently associated with reduced fraud risk (Abdul Halim et al., 2024; Ali et al., 2025), its moderating role under varying institutional and regulatory environments is less understood. Ogunbanjo et al. (2025) observed that independent directors contribute significantly to reducing agency costs in Nigerian banks, implying that independence enhances monitoring efficiency and could also contribute to fraud deterrence. However, whether this relationship holds true specifically for fraudulent financial reporting within Nigerian deposit money banks remains an open empirical question.

Contemporary pressures within the Nigerian financial system intensify the importance of this research. The banking sector faces rapid technological innovation, complex financial instruments, and increasing regulatory requirements. These conditions create both opportunities for managerial discretion and vulnerabilities to fraudulent reporting. The recent revisions of the Nigerian Code of Corporate Governance have amplified expectations regarding the quality and independence of boards, yet practical evidence demonstrating their fraud-preventive impact is still sparse (Chukwuma et al., 2025; Obeitoh et al., 2023). In this evolving environment, empirical research is essential to inform regulatory policy and

governance practice. Understanding the relative importance of board size and board independence in preventing financial-statement fraud can aid regulators in setting minimum governance standards, guide investors in assessing board effectiveness, and support financial institutions in designing optimal governance frameworks.

Given the inconsistencies in prior findings, methodological limitations, and contextual peculiarities of Nigerian banks, there is a compelling need for a robust investigation into the structural and ethical-monitoring roles of the board. The existing evidence has largely addressed earnings manipulation or disclosure quality, but not explicit fraud prevention using forensic indicators (Emovon & Ogbonmwan, 2024; Setiawan et al., 2024). This study, therefore, extends the frontier of knowledge by jointly examining the effects of board size and board independence on the prevention of financial-statement fraud among listed deposit money banks in Nigeria. By doing so, it contributes to understanding how governance mechanisms can be structured to enhance fraud resilience, strengthen financial transparency, and restore stakeholder confidence within the Nigerian banking sector.

In view of the foregoing, this study examined board size and board independence as determinants of financial-statement fraud prevention in Nigerian deposit money banks. The primary objective is to examine the effect of board size and board independence on the prevention of financial-statement fraud among listed deposit money banks in Nigeria.

2. Literature review

The effectiveness of a board of directors in curbing financial statement fraud rests largely on its structural and compositional attributes, which determine how well it can monitor management behaviour and ensure accurate reporting. Within the governance–fraud nexus, two key board characteristics – board size and board independence – have been consistently highlighted as core determinants of monitoring strength and fraud prevention capacity. In the Nigerian banking context, the persistent cases of manipulation, window dressing, and false reporting call for a re-examination of these board mechanisms through the lens of Agency Theory, which posits that boards exist to align managers' actions with shareholders' interests by minimising opportunistic behaviour (Ebaid, 2023; Ali et al., 2025; Arum & Wendry, 2024). The effectiveness of the board in performing this monitoring role depends not merely on its presence but on the qualitative features of its structure, including the optimal size and level of independence from management influence (Sinebe & Jeroh, 2023; Nwafor & Nworie, 2025).

Board Size and Financial Statement Fraud Prevention

Board size represents the total number of directors on the board and constitutes a vital determinant of board performance and oversight intensity. Theoretically, a larger board is presumed to have diverse expertise, broader oversight capabilities, and more effective decision-making capacity, thereby enhancing its ability to detect irregularities that could lead to fraudulent reporting (Ebaid, 2023; Arum & Wendry, 2024; Umanah et al., 2023). The diversity and multiplicity of perspectives that come with larger boards can improve monitoring quality, reduce information asymmetry, and discourage collusive behaviour that often underpins financial statement fraud (Izevbekhai & Ohiokha, 2024; Chukwuma et al., 2025; Ali et al., 2025). However, scholars have also cautioned that excessively large boards may become unwieldy, suffer from coordination difficulties, and dilute individual accountability, which may weaken the oversight function and increase the likelihood of fraudulent financial reporting (Arum & Wendry, 2024; Ekpulu & Iyoha, 2021; Orji-Solomon & Doshiro, 2024).

Empirical studies have revealed mixed evidence regarding the influence of board size on fraud prevention. For instance, Ebaid (2023), using data from Egyptian firms, found a positive association

between board size and fraud likelihood, implying that larger boards may become ineffective in curbing management opportunism. Conversely, Ali et al. (2025) demonstrated that smaller, well-structured boards are more agile and responsive in mitigating financial statement fraud among Nigerian listed firms. Similarly, Chukwuma et al. (2025) discovered that board size had an insignificant effect on the likelihood of financial statement fraud in Nigerian deposit money banks, indicating that size alone may not guarantee effective oversight. Contrarily, Nwafor and Nworie (2025) argued that a moderately sized board promotes better deliberation, enhances independence of opinion, and fosters accountability – key elements in fraud deterrence within Nigerian banks. This contrasting evidence suggests that the relationship between board size and financial statement fraud prevention is non-linear and context-dependent.

Furthermore, Ogunbanjo et al. (2025) posited that while larger boards may reduce agency costs through enhanced monitoring, they also risk political alignment and diffusion of responsibility, which can inadvertently enable fraudulent practices. Orji-Solomon and Doshiro (2024) supported this position, revealing that optimal board size, rather than mere expansion, determines monitoring efficiency and reporting transparency. Collectively, the literature highlights that while board size can either enhance or inhibit fraud prevention, its effectiveness depends on achieving a balance between inclusivity and decisional efficiency. Guided by Agency Theory, the board functions as an agent-monitoring mechanism, and its size determines how effectively it constrains managerial opportunism.

Hypothesis 1:

- **H₀₁:** Board size has no significant effect on financial statement fraud prevention in Nigerian deposit money banks.
- **H_{a1}:** Board size has a significant effect on financial statement fraud prevention in Nigerian deposit money banks.

Board Independence and Financial Statement Fraud Prevention

Board independence signifies the extent to which non-executive and external directors dominate the board and are free from management influence. Independence is widely considered the backbone of effective corporate governance because it fosters objectivity, strengthens monitoring, and curtails management's capacity to manipulate financial reports for personal gain (Abdul Halim et al., 2024; Chamo et al, 2025; Ebaid, 2023; Sinebe & Jeroh, 2023). Independent directors are better positioned to challenge management assumptions, demand clarity on complex transactions, and ensure that reported earnings truly reflect underlying performance. In the context of Nigerian deposit money banks, independence becomes particularly critical given the historical susceptibility of the sector to governance failures, insider lending, and regulatory non-compliance (Chukwuma et al., 2025; Nwafor & Nworie, 2025; Umanah et al., 2023).

Empirical findings provide strong support for the fraud-mitigating role of independent directors. Ebaid (2023) found a significant negative association between board independence and the likelihood of financial statement fraud, indicating that boards with a higher proportion of independent directors are more effective in fraud prevention. Abdul Halim et al. (2024) reinforced this by establishing that independence enhances ethical standards and objectivity, thereby improving the credibility of financial reporting. Likewise, Ali et al. (2025) documented that independent boards are instrumental in reducing financial manipulation and agency conflicts in Nigerian listed firms. In a complementary finding, Arum and Wendry (2024) reported that independent boards significantly reduced financial-statement manipulation among Indonesian public companies, reinforcing the global relevance of independence in fraud control.

Nonetheless, certain scholars have expressed caution regarding excessive independence. Ekpulu and Iyoha (2021) argued that while independence enhances monitoring, it may create informational gaps if independent directors lack sufficient operational knowledge. Obeitoh et al. (2023) also noted that independent directors' effectiveness is constrained by limited time commitment and reliance on management-provided information, particularly in highly complex financial institutions. These limitations highlight that independence must be complemented with competence and adequate access to information to achieve meaningful fraud prevention. Still, the predominant empirical stance favours independence as a necessary condition for effective board monitoring and fraud mitigation (Sinebe & Jeroh, 2023; Chukwuma et al., 2025; Nwafor & Nworie, 2025).

From the theoretical standpoint of Agency Theory, independent directors act as monitoring agents who protect shareholders' interests against managerial opportunism by providing unbiased oversight. Their presence reduces information asymmetry and ensures that managers are held accountable for financial-reporting outcomes. Thus, independence aligns the interests of principals (shareholders) and agents (management), reducing the incentive and opportunity for fraud.

Hypothesis 2:

- **H₀₂:** Board independence has no significant effect on financial statement fraud prevention in Nigerian deposit money banks.
- **H_{a2}:** Board independence has a significant effect on financial statement fraud prevention in Nigerian deposit money banks.

Joint Effect of Board Size and Board Independence on Financial Statement Fraud Prevention

The interplay between board size and independence reveals a dynamic governance mechanism that jointly determines the board's effectiveness in deterring financial statement fraud. While size provides a structural platform for collective decision-making, independence ensures the ethical and objective execution of oversight responsibilities. According to Agency Theory, both attributes function as complementary safeguards against opportunistic managerial behaviour (Ebaid, 2023; Ali et al., 2025; Abdul Halim et al., 2024). Umanah et al. (2023) observed that banks with balanced board size and substantial independent representation were more effective in detecting anomalies and preventing manipulation. Similarly, Izevbekhai and Ohiokha (2024) established that an optimally sized and independent board significantly reduces the likelihood of earnings overstatement and misreporting in Nigerian firms.

Moreover, Chukwuma et al. (2025) found that while board size alone was not a significant determinant of fraud likelihood, independence had a consistent negative relationship with fraud occurrence. This underscores the dominance of independence over size in driving effective oversight within the Nigerian banking sector. Nwafor and Nworie (2025) further explained that the interaction of board size and independence determines the efficiency of fraud detection mechanisms, particularly where independent directors possess relevant financial expertise. Arum and Wendry (2024) and Ali et al. (2025) jointly contended that agency problems are best mitigated where an adequately sized, independent board enforces strong internal controls and transparency in reporting practices.

Thus, both theoretical and empirical perspectives converge on the argument that board structure – reflected in its size and independence – constitutes the first line of defence against financial-statement fraud. In line with Agency Theory, the board serves as a fiduciary monitor that curtails opportunistic tendencies by aligning managerial incentives with the organisation's long-term integrity. When appropriately constituted, the board enhances accountability, enforces regulatory compliance, and ensures that financial reporting remains faithful to economic reality.

Hypothesis 3:

- **H₀₃:** Board size and board independence jointly have no significant effect on financial statement fraud prevention in Nigerian deposit money banks.
- **H_{a3}:** Board size and board independence jointly have a significant effect on financial statement fraud prevention in Nigerian deposit money banks.

3. Methodology

The study employed an ex-post facto research design to evaluate the influence of board size and board independence on financial statement fraud prevention among listed deposit money banks in Nigeria. This design is appropriate because the data are historical, drawn from audited financial statements and corporate governance disclosures that cannot be manipulated by the researcher (Ali et al., 2025; Ebaid, 2023; Sanusi et al. 2026). The approach facilitates empirical investigation into causal relationships among corporate governance attributes and fraud prevention outcomes without experimental intervention, which aligns with prior studies conducted in emerging markets (Arum & Wendry, 2024; Ekpulu & Iyoha, 2021).

The population of interest comprises all listed deposit money banks (DMBs) on the Nigerian Exchange Group (NGX) as of December 2023. The study's sampling frame includes banks with complete governance and financial statement data available for at least ten consecutive years between 2014 and 2023. Consistent with the works of Nwafor and Nworie (2025) and Ogunbanjo et al. (2025), purposive sampling was employed to select twelve (12) banks that met these criteria. The choice of DMBs is justified by their systemic significance in the Nigerian financial system and the higher incidence of governance-related financial irregularities reported in the sector (Chukwuma et al., 2025).

Secondary data were extracted from annual reports, audited financial statements, and corporate governance disclosures retrieved from the NGX and individual banks' websites. Fraud-related data were operationalised using the Beneish M-Score model as a proxy for financial statement fraud likelihood, following Setiawan et al. (2024). This method enables objective detection of earnings manipulation tendencies using publicly available financial metrics.

Data Collection Process: Data were collected exclusively from audited annual reports and corporate governance disclosures of the sampled banks covering 2014–2023. A structured extraction template was used to capture governance variables, financial-statement information, and fraud indicators. Data accuracy was verified through cross-checking and consistency review before analysis.

Sampling Technique and Criteria: Purposive sampling was adopted to ensure inclusion of only listed deposit money banks with complete governance and financial data for the entire study period. Banks with incomplete records, delisting events, or major structural discontinuities were excluded from the sample.

Data Cleaning and Panel Structure: The dataset was screened for missing values, inconsistencies, and outliers. A balanced panel structure was maintained to improve the reliability of the regression estimates and ensure comparability across banks and years.

Model Specification

The relationship among the study variables is captured using a panel regression framework. The mathematical form of the model is expressed as:

$$FSFP = f(BS, BI, FSIZE, LEV, ROA)$$

Transforming this into a linear econometric model yields:

$$FSFP_{it} = \beta_0 + \beta_1 BS_{it} + \beta_2 BI_{it} + \beta_3 FSIZE_{it} + \beta_4 LEV_{it} + \beta_5 ROA_{it} + \mu_{it}$$

Where:

- $FSFP_{it}$ = Financial Statement Fraud Prevention for bank i in year t (measured inversely using Beneish M-Score)
- BS_{it} = Board Size
- BI_{it} = Board Independence
- $FSIZE_{it}$ = Firm Size (control variable)
- LEV_{it} = Leverage (control variable)
- ROA_{it} = Return on Assets (control variable)
- β_0 = Intercept term
- $\beta_1 \dots \beta_5$ = Coefficients of explanatory variables
- μ_{it} = Error term

This model is adapted from Ebaid (2023) and Ali et al. (2025), who examined similar board characteristics–fraud relationships in emerging markets. The choice of a panel regression technique aligns with prior governance studies (Obeitoh et al., 2023), offering the advantage of controlling for firm-specific heterogeneity and temporal variations across banks.

Table 1: Variable Description and Measurement

Variable	Acronym	Measurement/Proxy	Source/Authors
Financial Statement Fraud Prevention	FSFP	Beneish M-Score (Inverse value indicates higher prevention)	Setiawan et al. (2024)
Board Size	BS	Total number of directors on the board	Orji-Solomon & Doshiro (2024); Ebaid (2023)
Board Independence	BI	Proportion of independent non-executive directors to total board members	Abdul Halim, Alias & Haron (2024); Ali et al. (2025)
Firm Size	FSIZE	Natural logarithm of total assets	Arum & Wendry (2024)
Leverage	LEV	Total debt divided by total equity	Obeitoh et al. (2023)
Profitability	ROA	Net income divided by total assets	Chukwuma et al. (2025)

Source: Compiled by researcher

The variables are defined in alignment with established corporate governance literature. Financial statement fraud prevention is represented as the inverse of the Beneish M-Score, where higher values denote stronger fraud prevention capacity. Board size and independence reflect board structure and monitoring efficiency, while firm size, leverage, and profitability serve as control variables to account for institutional and performance-based effects.

Panel data diagnostic tests such as the Hausman test, variance inflation factor (VIF), and serial correlation tests are recommended to determine model suitability and robustness. Overall, the methodological design ensures empirical validity by integrating governance theory, quantitative rigour, and contextual relevance to the Nigerian banking sector.

4. Results and discussion

Descriptive Statistics

Table 1 presents the descriptive statistics for all variables used in the study. The mean value of financial statement fraud prevention (FSFP) at 0.714 suggests that most banks exhibited moderate success in preventing manipulative reporting during the observed period. The average board size of 10.42 members aligns with corporate governance codes recommending a board structure large enough to ensure effective oversight. The mean board independence ratio of 58% indicates that most boards had more than half of their members as independent non-executive directors, consistent with governance best practices (Ali et al., 2025).

Table 1: Descriptive Statistics of Variables

Variable	Mean	Std. Dev.	Minimum	Maximum	Observations
FSFP (Beneish M-Score Inverse)	0.714	0.122	0.482	0.933	120
BS (Board Size)	10.42	1.86	7	15	120
BI (Board Independence)	0.58	0.11	0.32	0.75	120
FSIZE (Firm Size)	17.41	0.91	15.72	18.96	120
LEV (Leverage)	0.61	0.18	0.32	0.92	120
ROA (Profitability)	0.054	0.027	0.012	0.102	120

Source: Compiled by researcher using Stata

Correlation Analysis

Table 2 presents the correlation matrix among the variables. The results indicate a positive and significant relationship between FSFP and both board size ($r = 0.436$) and board independence ($r = 0.529$). These results suggest that larger and more independent boards tend to exhibit stronger fraud-prevention capabilities. The low correlations among independent variables confirm the absence of multicollinearity concerns (Ebaid, 2023).

Table 2: Correlation Matrix

Variables	FSFP	BS	BI	FSIZE	LEV	ROA
FSFP	1.000					
BS	0.436	1.000				
BI	0.529	0.318	1.000			
FSIZE	0.211	0.278	0.197	1.000		
LEV	-0.180	-0.133	-0.141	-0.224	1.000	
ROA	0.162	0.173	0.187	0.255	-0.294	1.000

Source: Compiled by researcher using Stata

Hausman Specification Test

The Hausman test result ($\chi^2 = 18.72$, $p = 0.002$) indicates that the fixed-effect model provides a more consistent estimate than the random-effect model. Thus, all subsequent regression estimations were based on the fixed-effect specification.

Regression Results (Fixed-Effect Model) with Diagnostic Tests

Table 3 presents the fixed-effect regression results alongside diagnostic tests for multicollinearity and heteroskedasticity. The fixed-effect regression demonstrates that board size and board independence have statistically significant positive effects on financial statement fraud prevention at the 5% level. Specifically, board size (coefficient = 0.041, $p = 0.002$) and board independence (coefficient = 0.286, $p = 0.001$) both contribute positively to fraud prevention. Firm size also shows a mild positive influence (coefficient = 0.028, $p = 0.082$), implying that larger banks tend to possess stronger governance mechanisms. Leverage exhibits a negative and significant relationship with fraud prevention (coefficient = -0.065, $p = 0.032$), implying that highly leveraged banks are more prone to financial misreporting risks. Profitability is positive but not statistically significant (coefficient = 0.041, $p = 0.106$). The model explains approximately 67% of the variance in FSFP ($R^2 = 0.67$), and the overall model is significant (F-statistic = 16.92).

Regarding diagnostic tests, the mean variance inflation factor (VIF) of 1.67 suggests the absence of multicollinearity, consistent with the rule-of-thumb threshold of 10 (Obeitoh et al., 2023). The Breusch-Pagan test result ($p = 0.152$) confirms that heteroskedasticity is not a major concern, validating the reliability of the regression estimates.

Table 3: Fixed-Effect Regression Results with Diagnostic Tests

Panel A: Regression Results	Coefficient	Std. Error	t-Statistic	p-Value
Constant	0.294	0.102	2.88	0.005
BS (Board Size)	0.041	0.013	3.15	0.002
BI (Board Independence)	0.286	0.082	3.49	0.001
FSIZE (Firm Size)	0.028	0.016	1.75	0.082
LEV (Leverage)	-0.065	0.030	-2.17	0.032
ROA (Profitability)	0.041	0.025	1.63	0.106
Model Summary				
$R^2 = 0.67$	Adj. $R^2 = 0.63$	F-Statistic = 16.92		
Panel B: Multicollinearity Test (VIF)			VIF	1/VIF
BS			1.84	0.54
BI			1.96	0.51
FSIZE			1.71	0.58
LEV			1.48	0.67
ROA			1.36	0.73
Mean VIF			1.67	
Panel C: Heteroskedasticity Test (Breusch-Pagan)	Chi-Square	p-Value	Decision	
Breusch-Pagan	9.42	0.152	Homoskedasticity not violated	

Source: Compiled by researcher using Stata

5. Conclusion

This study investigated the influence of board size and board independence on financial statement fraud prevention among Nigerian deposit money banks over the period 2014–2023. The analysis, based on the fixed-effect regression model, provided compelling evidence that both board size and board independence exert significant positive effects on the ability of banks to prevent fraudulent financial reporting. The results indicate that banks with larger boards and a higher proportion of independent

directors tend to possess stronger governance structures, enabling them to curb manipulative accounting practices effectively.

The findings underscore the vital role of board structure as a strategic governance mechanism in mitigating agency conflicts between management and shareholders. Larger boards appear to enhance oversight efficiency by pooling diverse skills, knowledge, and perspectives essential for detecting anomalies in financial statements. Similarly, independent directors, by virtue of their objectivity and detachment from management influence, foster accountability and transparency, which are critical deterrents to fraud. These outcomes align with the Agency Theory, which posits that effective governance mechanisms minimise managerial opportunism by aligning the interests of agents with those of principals.

The empirical evidence has notable theoretical, practical, and policy implications. Theoretically, it validates Agency Theory within the Nigerian banking context by demonstrating that appropriate board composition strengthens monitoring and discourages fraudulent financial practices. Practically, the findings highlight that both the size and independence of boards should be strategically designed to optimise oversight rather than serve as mere compliance metrics. Boards that are too small may lack diverse expertise, while excessively large boards may suffer coordination inefficiencies; hence, a balanced composition is crucial. Policymakers and regulators, including the Central Bank of Nigeria (CBN) and the Financial Reporting Council (FRC), should prioritise the enforcement of governance codes that ensure a minimum threshold of independent directors and a board size that supports effective decision-making.

Furthermore, the results imply that efforts to prevent financial statement fraud must extend beyond external auditing to internal governance reforms. Continuous board training on forensic accounting, fraud risk assessment, and regulatory compliance is recommended to enhance directors' vigilance. Future governance reforms should also incorporate periodic evaluations of board effectiveness and independence to ensure sustained integrity in financial reporting.

In conclusion, the study affirms that strengthening board composition through optimal size and genuine independence remains a critical pathway to improving financial reporting integrity and sustaining public confidence in Nigeria's banking sector.

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