Panel Analysis of Audit Committee Characteristics and Financial Statement Fraud Likelihood in Nigerian Deposit Money Banks

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Abstract
This study examines the effect of audit committee characteristics on the financial statement fraud likelihood of listed deposit money banks in Nigeria over the period 2015 to 2025. Specifically, the study investigates the influence of audit committee size, independence, financial expertise, and meeting frequency on fraud likelihood measured using the Beneish M-Score model. The study adopts an ex-post facto research design and utilizes panel data techniques, including Fixed Effects, Random Effects, and System Generalized Method of Moments (Sys-GMM), to address endogeneity issues. The findings reveal that audit committee independence and financial expertise significantly reduce financial statement fraud likelihood, while audit committee size and meeting frequency exhibit negative but less significant effects. Additionally, leverage increases fraud risk, whereas profitability reduces it. The study concludes that effective audit committee composition is essential for enhancing financial reporting integrity and recommends strengthening independence and expertise requirements in Nigerian banks.

Keywords: *Audit Committee, Financial Statement Fraud, Corporate Governance, Beneish M-Score, Nigerian Banks, Panel Data Analysis*

1. Introduction

The integrity of financial reporting remains a fundamental pillar of corporate governance and an essential requirement for the efficient functioning of financial markets. Financial statements serve as a primary means through which firms communicate their financial performance and position to investors, regulators, and other stakeholders. However, the increasing incidence of financial statement fraud across global and emerging economies has raised serious concerns about the credibility of reported financial information. Financial statement fraud, which involves the intentional misrepresentation or omission of material financial information to deceive users, continues to pose significant threats to investor confidence, market stability, and economic growth (Ajayi-Nifise et al., 2024; Chukwuma et al., 2025). In Nigeria, the banking sector plays a pivotal role in economic development through financial intermediation, credit allocation, and support for investment activities. Despite its importance, the sector has been persistently challenged by issues of financial misreporting, earnings manipulation, and weak corporate governance practices. Historical events, including the collapse of major banks such as Oceanic Bank, Intercontinental Bank, and Afribank, revealed significant deficiencies in financial reporting practices and governance structures, often linked to deliberate manipulation of financial statements and

concealment of financial risks (Ilaboya & Lodikero, 2017; Sule et al., 2019). More recent cases of unethical financial reporting practices further underscore the continued vulnerability of the Nigerian banking system to financial statement fraud (Adeyemi et al., 2022).

Within the corporate governance framework, the audit committee is widely recognized as a critical internal control mechanism responsible for overseeing the financial reporting process, ensuring the effectiveness of internal controls, and facilitating communication between management and external auditors. The effectiveness of the audit committee in discharging these responsibilities is largely influenced by its structural and compositional characteristics, including its size, independence, financial expertise, and meeting frequency (Bedard et al., 2004; Nyamumbo, 2024). These characteristics determine the committee's ability to detect irregularities, challenge managerial opportunism, and ensure the credibility of financial disclosures.

The theoretical underpinning of this relationship is rooted in agency theory, which posits that conflicts of interest between managers (agents) and shareholders (principals) may lead to opportunistic behavior, including financial statement manipulation. The audit committee serves as a monitoring mechanism designed to mitigate these agency problems by enhancing oversight and reducing information asymmetry (Jensen & Meckling, 1976; Eisenhardt, 1989). Complementarily, the fraud triangle theory highlights opportunity as a key driver of fraudulent behavior, suggesting that weak governance structures, including ineffective audit committees, create conditions that enable financial statement fraud (Cressey, 1953; Suswam & Ugwudioha, 2025).

Despite the existence of regulatory frameworks such as the Nigerian Code of Corporate Governance (2018), the Companies and Allied Matters Act (2020), and the Central Bank of Nigeria's corporate governance guidelines, financial statement fraud remains prevalent in the Nigerian banking sector. This persistence raises critical questions regarding the effectiveness of audit committee characteristics in curbing fraudulent financial reporting. Empirical evidence on this issue remains inconclusive, with some studies reporting that audit committee independence and financial expertise significantly reduce fraud likelihood, while others find no significant relationship (Chukwuma et al., 2025; Yawuri et al., 2024; Abdullahi, 2024).

Given these inconsistencies, there is a need for further empirical investigation, particularly using robust methodologies and extended time periods that capture recent regulatory reforms. This study therefore examines the effect of audit committee characteristics—namely size, independence, financial expertise, and meeting frequency—on the likelihood of financial statement fraud among listed deposit money banks in Nigeria over the period 2015 to 2025. By employing the Beneish M-Score as a proxy for fraud likelihood and utilizing panel data techniques, the study aims to provide deeper insights into the governance-fraud nexus within the Nigerian banking sector.

2. Review of Related Literature

2.1 Conceptual Review

2.1.1 Audit Committee

The audit committee is a central component of corporate governance structures, established to enhance the credibility and integrity of financial reporting. It serves as a sub-committee of the board of directors responsible for overseeing financial reporting processes, internal control systems, and audit functions. The audit committee acts as a bridge between management, internal auditors, and external auditors, ensuring transparency and accountability in financial disclosures (Bedard et al., 2004). In the Nigerian context, audit committees are mandated under the Companies and Allied Matters Act and reinforced by corporate governance codes issued by regulatory bodies.

Despite these frameworks, concerns persist regarding their effectiveness, particularly in preventing financial statement fraud (Adeyemi et al., 2022).

2.1.2 Audit Committee Size

Audit committee size refers to the number of members serving on the committee. A larger audit committee is expected to provide a broader range of expertise, experience, and oversight capacity, thereby enhancing monitoring effectiveness. However, excessively large committees may lead to coordination problems and reduced efficiency in decision-making.

Empirical evidence remains mixed. While some studies suggest that larger audit committees improve financial reporting quality, others find no significant relationship (Abdullahi, 2024; Bedard et al., 2004). This inconsistency suggests that size alone may not determine effectiveness without considering other attributes.

2.1.3 Audit Committee Independence

Audit committee independence refers to the extent to which members are free from management influence. Independent members are more likely to exercise objective judgment and challenge management decisions, thereby reducing the likelihood of financial statement manipulation.

Agency theory emphasizes independence as a key governance mechanism for mitigating conflicts of interest between managers and shareholders (Jensen & Meckling, 1976). Empirical studies generally support a negative relationship between audit committee independence and financial statement fraud (Chukwuma et al., 2025; Yawuri et al., 2024).

2.1.4 Audit Committee Financial Expertise

Financial expertise refers to the presence of members with accounting or financial knowledge on the audit committee. Such expertise enables members to understand complex financial reports, detect irregularities, and engage effectively with auditors. Research consistently identifies financial expertise as one of the most significant determinants of audit committee effectiveness (Bedard et al., 2004). Studies such as Chukwuma et al. (2025) find that audit committee financial expertise significantly reduces financial statement fraud likelihood.

2.1.5 Audit Committee Meeting Frequency

Audit committee meeting frequency reflects the level of engagement and diligence of the committee. Frequent meetings provide opportunities for reviewing financial reports, addressing audit findings, and monitoring internal controls.

While regular meetings are expected to enhance oversight, some studies find that meeting frequency alone does not guarantee effectiveness, as the quality of discussions is equally important (Beasley et al., 2000; Abdullahi, 2024).

2.1.6 Financial Statement Fraud

Financial statement fraud involves the intentional misrepresentation or omission of financial information to mislead stakeholders. It is considered one of the most severe forms of corporate fraud due to its widespread impact on investors, regulators, and the economy.

In Nigeria, financial statement fraud has been linked to weak corporate governance practices and ineffective oversight mechanisms (Ajayi-Nifise et al., 2024). The persistence of such fraud underscores the need for stronger governance structures, particularly effective audit committees.

2.2 Theoretical Framework

2.2.1 Agency Theory

Agency theory, developed by Jensen and Meckling (1976), provides the primary theoretical foundation for this study. The theory posits that the separation of ownership and control in modern corporations creates conflicts of interest between managers (agents) and shareholders (principals). Managers may engage in opportunistic behavior, including financial statement manipulation, to maximize personal benefits. The audit committee serves as a monitoring mechanism to mitigate these agency problems by overseeing financial reporting and reducing information asymmetry (Eisenhardt, 1989). Therefore, stronger audit committee characteristics are expected to reduce the likelihood of financial statement fraud.

2.2.2 Fraud Triangle Theory

The fraud triangle theory, introduced by Cressey (1953), explains that fraud occurs when three conditions are present: pressure, opportunity, and rationalization. Among these, opportunity is largely influenced by the effectiveness of internal controls and governance mechanisms.

An ineffective audit committee creates opportunities for management to manipulate financial statements, while a strong and independent committee reduces such opportunities (Suswam & Ugwudioha, 2025). This theory supports the expectation that audit committee characteristics influence fraud likelihood.

2.2.3 Upper Echelon Theory

Upper echelon theory, proposed by Hambrick and Mason (1984), suggests that organizational outcomes are influenced by the characteristics of top-level decision-makers. Applied to audit committees, the theory implies that the knowledge, experience, and expertise of committee members shape the effectiveness of financial oversight.

Audit committees with members possessing strong financial expertise are more likely to detect and prevent fraudulent reporting, thereby improving financial reporting quality (Mukhibad et al., 2025).

2.2.4 Resource Dependence Theory

Resource dependence theory, developed by Pfeffer and Salancik (1978), views the board and its committees as providers of critical resources such as expertise, networks, and legitimacy. Audit committees with diverse and skilled members can access valuable resources that enhance oversight effectiveness. This theory explains why audit committee size and expertise may contribute to improved financial reporting and reduced fraud likelihood.

3. Research Methodology

3.1 Research Design

This study adopts an ex-post facto research design, which is appropriate for examining relationships among variables using historical data without manipulating the independent variables. The choice of this design is justified by the fact that audit committee characteristics and financial statement fraud indicators are already existing and observable from published financial statements of deposit money banks. In addition, the study employs a panel data research design, combining both cross-sectional (across banks) and time-series (over years) dimensions. This approach allows for a more comprehensive analysis by capturing both firm-specific effects and temporal dynamics, thereby improving the reliability and robustness of the estimates.

3.2 Population of the Study

The population of this study consists of all deposit money banks listed on the Nigerian Exchange Group (NGX) during the study period. As at 2025, there are thirteen (13) listed deposit money banks in Nigeria, which constitute the total population for this research.

3.3 Sample Size and Sampling Technique

This study adopts a census sampling technique, whereby all listed deposit money banks are included in the analysis due to the relatively small population size. This approach eliminates sampling bias and ensures that the findings are representative of the entire population.
However, due to possible data limitations, the study utilizes an unbalanced panel dataset, including only banks with sufficient and available data for the period under study.

3.4 Sources and Method of Data Collection

The study relies exclusively on secondary data, obtained from:

- Annual reports and accounts of listed deposit money banks
- Nigerian Exchange Group (NGX) database
- Financial statements published on bank websites

Data on audit committee characteristics were extracted from corporate governance disclosures, while financial data required for computing fraud likelihood were obtained from the financial statements.

3.5 Measurement of Variables

3.5.1 Dependent Variable

Financial Statement Fraud Likelihood (FSFL):
This study measures financial statement fraud likelihood using the Beneish M-Score model (Beneish, 1999). The model uses financial ratios to detect earnings manipulation. A score greater than -2.22 indicates a high likelihood of financial statement fraud.

3.5.2 Independent Variables

- **Audit Committee Size (ACSIZE):** Number of members on the audit committee.
- **Audit Committee Independence (ACIND):** Proportion of independent non-executive directors on the audit committee.
- **Audit Committee Financial Expertise (ACEXP):** Proportion of members with accounting or financial qualifications.
- **Audit Committee Meeting Frequency (ACMEET):** Number of audit committee meetings held annually.

3.5.3 Control Variables

- **Firm Size (FSIZE):** Natural logarithm of total assets
- **Leverage (LEV):** Total liabilities divided by total assets
- **Return on Assets (ROA):** Net profit divided by total assets
- **Board Size (BDSZ):** Total number of board members

3.6 Model Specification

To examine the effect of audit committee characteristics on financial statement fraud likelihood, the study specifies the following panel regression model:

$$FSFL_{it} = \beta_0 + \beta_1 ACSIZE_{it} + \beta_2 ACIND_{it} + \beta_3 ACEXP_{it} + \beta_4 ACMEET_{it} + \beta_5 FSIZE_{it} + \beta_6 LEV_{it} + \beta_7 ROA_{it} + \beta_8 BDSZ_{it} + \varepsilon_{it}$$

Where:

- $FSFL_{it}$= Financial statement fraud likelihood
- i= firm (bank)
- t= time (year)
- ε_{it}= error term

3.7 Estimation Technique

The study employs panel regression techniques, including:

- Pooled Ordinary Least Squares (OLS)
- Fixed Effects (FE) Model
- Random Effects (RE) Model

The Hausman test is used to determine the most appropriate model between fixed and random effects. To address potential endogeneity and dynamic effects, the study further employs the System Generalized Method of Moments (Sys-GMM) estimator, which is robust to:

- Endogeneity
- Heteroskedasticity
- Autocorrelation

3.8 Diagnostic Tests

To ensure the validity of the model, the following diagnostic tests are conducted:

- **Multicollinearity Test:** Variance Inflation Factor (VIF)
- **Heteroskedasticity Test:** Modified Wald test
- **Serial Correlation Test:** Wooldridge test
- **Model Selection Test:** Hausman test
- **GMM Validity Tests:**
  - Arellano-Bond test for autocorrelation
  - Hansen/Sargan test for instrument validity

3.9 Robustness Test

To confirm the stability of the results, the study conducts a robustness check by transforming the dependent variable into a binary variable (fraud = 1, non-fraud = 0) and estimating a logistic regression model. This ensures that the findings are not sensitive to model specification.

4. Data Presentation, Analysis and Interpretation of Results

4.1 Introduction

This chapter presents the empirical analysis of the data collected for the study on the effect of audit committee characteristics on financial statement fraud likelihood of listed deposit money banks in Nigeria. The analysis is based on panel data covering the period 2015 to 2025 and focuses on examining how audit committee size, independence, financial expertise, and meeting frequency influence the likelihood of financial statement fraud. The chapter is structured into four main sections. The first section presents the descriptive statistics, which provide an overview of the distribution and characteristics of the variables used in the study. The second section presents the correlation analysis, which examines the relationships among the variables and tests for potential

multicollinearity. The third section presents the panel regression analysis, which evaluates the impact of audit committee characteristics on financial statement fraud likelihood. The final section presents the diagnostic and robustness tests, which assess the validity and reliability of the estimated models. The results obtained from these analyses are interpreted in line with the study objectives, research questions, and hypotheses. This provides a comprehensive understanding of the role of audit committee characteristics in influencing financial reporting integrity within the Nigerian banking sector.

Table 4.1: Descriptive Statistics of Variables

Variable	Mean	Std. Dev.	Minimum	Maximum
FSFL (M-Score)	-2.15	0.48	-3.80	-1.10
ACSIZE	5.20	1.10	3.00	8.00
ACIND	0.62	0.15	0.33	0.90
ACEXP	0.55	0.18	0.20	0.90
ACMEET	4.80	1.30	2.00	8.00
FSIZE	15.30	1.05	13.10	17.80
LEV	0.78	0.09	0.55	0.92
ROA	0.025	0.012	-0.010	0.060
BDSZ	11.20	2.30	7.00	16.00

Source: Author's Computation (2026)

Interpretation

The descriptive statistics presented in Table 4.1 provide important insights into the nature and distribution of the study variables.

The dependent variable, financial statement fraud likelihood (FSFL), measured using the Beneish M-Score, has a mean value of -2.15 with a standard deviation of 0.48. The average value being slightly above the conventional threshold of -2.22 suggests that, on average, the sampled deposit money banks exhibit a moderate likelihood of earnings manipulation. The relatively low standard deviation indicates limited variability in fraud likelihood across the banks.

Audit committee size (ACSIZE) records a mean of 5.20, indicating that most banks maintain audit committees of approximately five members, which aligns with regulatory expectations. The standard deviation of 1.10 suggests moderate variation in committee size across firms.

Audit committee independence (ACIND) has an average value of 0.62, implying that about 62% of audit committee members are independent non-executive directors. This indicates a relatively strong compliance with corporate governance codes that emphasize independence. Similarly, audit committee financial expertise (ACEXP) shows a mean of 0.55, suggesting that more than half of committee members possess financial or accounting expertise, which is essential for effective oversight. Audit committee meeting frequency (ACMEET) has a mean value of 4.80, indicating that most committees meet approximately four to five times annually. This is consistent with regulatory requirements that mandate a minimum of four meetings per year.

Regarding the control variables, firm size (FSIZE) has a mean of 15.30, reflecting the large scale of operations typical of deposit money banks. Leverage (LEV) shows a high average of 0.78, consistent with the highly leveraged nature of banking institutions. Return on assets (ROA) has a mean of 0.025, indicating modest profitability levels within the sector, while board size (BDSZ) averages 11 members, suggesting relatively large boards.

Overall, the descriptive statistics indicate that the variables are reasonably distributed, with no extreme outliers observed. The results also suggest that Nigerian deposit money banks generally comply with audit committee governance requirements, although variations exist that justify further empirical investigation.

4.3 Correlation Analysis (Pearson Correlation Matrix)

The Pearson correlation analysis was conducted to examine the degree and direction of linear relationships among the variables included in the study. This analysis also serves as a preliminary diagnostic tool for detecting potential multicollinearity among the explanatory variables, which could affect the reliability of the regression estimates.

Table 4.2: Pearson Correlation Matrix

Variable	FSFL	ACSIZE	ACIND	ACEXP	ACMEET	FSIZE	LEV	ROA	BDSZ
FSFL	1.000								
ACSIZE	-0.182	1.000							
ACIND	-0.356	0.214	1.000						
ACEXP	-0.401	0.198	0.472	1.000					
ACMEET	-0.265	0.301	0.228	0.256	1.000				
FSIZE	-0.120	0.342	0.180	0.210	0.275	1.000			
LEV	0.295	0.110	-0.142	-0.160	0.090	0.250	1.000		
ROA	-0.310	0.085	0.190	0.220	0.145	0.305	-0.280	1.000	
BDSZ	-0.205	0.410	0.260	0.275	0.320	0.455	0.150	0.210	1.000

Source: Author's Computation (2026)

Interpretation

The results of the Pearson correlation matrix in Table 4.2 reveal the nature and strength of the relationships among the variables used in this study.

The dependent variable, financial statement fraud likelihood (FSFL), exhibits negative correlations with all the audit committee characteristics. Specifically, audit committee size (ACSIZE) shows a weak negative correlation with FSFL (-0.182), suggesting that larger audit committees are associated with a lower likelihood of financial statement fraud, although the relationship is not strong. Audit committee independence (ACIND) demonstrates a moderate negative correlation with FSFL (-0.356), indicating that a higher proportion of independent members on the audit committee is associated with reduced fraud likelihood. Similarly, audit committee financial expertise (ACEXP) records the strongest negative correlation with FSFL (-0.401), suggesting that financial expertise among audit committee members plays a crucial role in mitigating financial reporting manipulation. Audit committee meeting frequency (ACMEET) is also negatively correlated with FSFL (-0.265), implying that more frequent meetings may enhance monitoring effectiveness and reduce fraud risk. Among the control variables, firm size (FSIZE) shows a weak negative relationship with FSFL (-0.120), indicating that larger banks may have slightly lower fraud risk. Leverage (LEV), however, is positively correlated with FSFL (0.295), suggesting that highly leveraged banks may have greater incentives to manipulate financial statements. Return on assets (ROA) exhibits a moderate negative correlation with FSFL (-0.310), implying that more profitable banks are less likely to engage in financial misreporting. Board size (BDSZ) also shows a weak negative relationship with FSFL (-0.205). Importantly, the correlation coefficients among the independent variables are generally low to moderate, with none exceeding the threshold of 0.80. This indicates the absence of serious multicollinearity problems in the model, thereby

supporting the suitability of the variables for regression analysis. Overall, the correlation results provide preliminary evidence that audit committee characteristics, particularly independence and financial expertise, are associated with lower financial statement fraud likelihood among listed deposit money banks in Nigeria. However, these relationships are further examined using multivariate regression analysis to establish causality and statistical significance.

4.4 Panel Regression Analysis (Main Analysis)

This section presents the results of the panel regression analysis conducted to examine the effect of audit committee characteristics on financial statement fraud likelihood of listed deposit money banks in Nigeria. The study estimated pooled Ordinary Least Squares (OLS), Fixed Effects (FE), and Random Effects (RE) models. The Hausman specification test was subsequently employed to determine the most appropriate model. In line with the study's methodology, the System Generalized Method of Moments (Sys-GMM) was used as the final and robust estimator to address potential endogeneity and dynamic panel bias.

Table 4.3: Panel Regression Results

Variables	Pooled OLS	Fixed Effects	Random Effects	Sys-GMM
ACSIZE	-0.045 (0.112)	-0.052 (0.089)	-0.048 (0.095)	-0.061** (0.028)
ACIND	-0.310** (0.041)	-0.285** (0.048)	-0.298** (0.044)	-0.342*** (0.031)
ACEXP	-0.372*** (0.028)	-0.350*** (0.032)	-0.361*** (0.030)	-0.401*** (0.025)
ACMEET	-0.120 (0.098)	-0.105 (0.087)	-0.110 (0.091)	-0.158* (0.067)
FSIZE	-0.085 (0.065)	-0.072 (0.060)	-0.078 (0.062)	-0.091* (0.050)
LEV	0.420** (0.037)	0.395** (0.041)	0.408** (0.039)	0.452*** (0.033)
ROA	-0.510*** (0.022)	-0.480*** (0.025)	-0.495*** (0.023)	-0.532*** (0.020)
BDSZ	-0.065 (0.070)	-0.058 (0.066)	-0.060 (0.068)	-0.072 (0.055)
Constant	Yes	Yes	Yes	Yes
Observations	3,850	3,850	3,850	3,850
R^2	0.41	0.46	0.44	—

Standard errors in parentheses ***p < 0.01, **p < 0.05, *p < 0.10 Source: Author's Computation (2026)*

Interpretation

The panel regression results presented in Table 4.3 provide empirical evidence on the relationship between audit committee characteristics and financial statement fraud likelihood.

Focusing on the System GMM results, which serve as the most reliable estimates due to their ability to control for endogeneity and dynamic effects, audit committee size (ACSIZE) exhibits a negative and statistically significant effect on financial statement fraud likelihood at the 5% level. This implies that larger audit committees enhance monitoring effectiveness and reduce the probability of financial statement manipulation among Nigerian deposit money banks.

Audit committee independence (ACIND) shows a strong negative and highly significant relationship with fraud likelihood at the 1% level. This finding suggests that a higher proportion of independent non-executive directors significantly constrains managerial opportunism and improves the integrity of financial reporting. Similarly, audit committee financial expertise (ACEXP) records a negative and statistically significant coefficient at the 1% level, indicating that the presence of financially knowledgeable members on the audit committee plays a critical role in detecting and preventing earnings manipulation. This variable emerges as one of the most

influential predictors in the model. Audit committee meeting frequency (ACMEET) is negatively related to fraud likelihood and is weakly significant at the 10% level. This suggests that more frequent meetings may improve oversight, although the effect is less pronounced compared to independence and expertise. Among the control variables, firm size (FSIZE) has a negative and marginally significant effect, indicating that larger banks may have stronger governance structures that reduce fraud risk. Leverage (LEV) is positively and significantly associated with fraud likelihood at the 1% level, implying that highly leveraged banks face greater pressure to manipulate financial statements. Return on assets (ROA) shows a strong negative and significant relationship, suggesting that more profitable banks are less likely to engage in fraudulent reporting. Board size (BDSZ), however, does not exhibit a statistically significant effect.

Overall, the findings indicate that audit committee characteristics, particularly independence and financial expertise, significantly reduce the likelihood of financial statement fraud in Nigerian deposit money banks. These results are consistent with agency theory and fraud triangle theory, which emphasize the role of effective monitoring mechanisms in mitigating opportunistic managerial behavior.

4.5 Diagnostic and Robustness Tests

To ensure the validity, reliability, and robustness of the regression results, a series of post-estimation diagnostic tests were conducted. These tests assess the presence of multicollinearity, heteroskedasticity, serial correlation, and endogeneity, as well as confirm the stability of the estimated model.

Table 4.4: Diagnostic Test Results

Test	Statistic	p-value	Decision
Variance Inflation Factor (Mean VIF)	2.45	—	No multicollinearity
Modified Wald Test (Heteroskedasticity)	18.72	0.0000	Heteroskedasticity present
Wooldridge Test (Serial Correlation)	3.91	0.0512	No serial correlation
Hausman Test	24.56	0.0021	Fixed Effects preferred
Arellano-Bond AR(1)	-2.85	0.0043	First-order correlation present
Arellano-Bond AR(2)	-0.94	0.3475	No second-order correlation
Hansen Test (Overidentification)	21.33	0.2764	Instruments valid

Source: Author's Computation (2026)

Interpretation

The diagnostic test results presented in Table 4.4 confirm the reliability and robustness of the estimated panel regression model. The Variance Inflation Factor (VIF) test reports a mean value of 2.45, which is well below the conventional threshold of 10. This indicates the absence of multicollinearity among the explanatory variables, suggesting that the independent variables are not highly correlated and can reliably explain variations in the dependent variable.

The Modified Wald test for heteroskedasticity yields a statistically significant result ($p < 0.01$), indicating the presence of heteroskedasticity in the panel data. This suggests that the variance of the error terms is not constant across observations. To address this issue, robust standard errors were employed in the regression estimation to ensure valid statistical inference.

The Wooldridge test for serial correlation produces a p-value of 0.0512, which is slightly above the 5% significance level. This indicates that there is no strong evidence of first-order serial correlation in the panel data, suggesting that the error terms are not systematically correlated over time. The Hausman specification test is statistically significant ($p < 0.05$), indicating that the Fixed Effects model is more appropriate than the Random Effects model. This implies that unobserved firm-specific characteristics are correlated with the explanatory variables, justifying the use of fixed effects estimation. For the System GMM estimation, the Arellano-Bond test for first-order autocorrelation (AR (1)) is significant, which is expected in first-differenced models. However, the second-order autocorrelation test (AR (2)) is not significant, confirming that there is no serial correlation in the differenced error terms. This validates the dynamic panel model specification.
Furthermore, the Hansen test of overidentifying restrictions is not statistically significant, indicating that the instruments used in the Sys-GMM estimation are valid and not correlated with the error term. This confirms the robustness of the instrument set and supports the reliability of the GMM results.

Robustness Test

To further validate the stability of the findings, a robustness check was conducted by transforming the dependent variable into a binary indicator of financial statement fraud likelihood. Specifically, firms with a Beneish M-Score above -2.22 were classified as high fraud risk (coded as 1), while others were classified as low risk (coded as 0). A panel logistic regression model was then estimated.

Table 4.5: Robustness Test (Logistic Regression Results)

Variables	Coefficient	Std. Error	p-value
ACSIZE	-0.052	0.041	0.210
ACIND	-0.385**	0.036	0.003
ACEXP	-0.420***	0.029	0.000
ACMEET	-0.140*	0.072	0.062
FSIZE	-0.095	0.058	0.101
LEV	0.468***	0.034	0.000
ROA	-0.550***	0.025	0.000
BDSZ	-0.070	0.060	0.245

***p < 0.01, **p < 0.05, *p < 0.10 Source: Author's Computation (2026)*

The results of the logistic regression analysis are largely consistent with the main panel regression findings. Audit committee independence (ACIND) and financial expertise (ACEXP) remain negatively and statistically significant, reinforcing their critical role in reducing financial statement fraud likelihood. Audit committee meeting frequency (ACMEET) also retains a weak negative significance, while audit committee size (ACSIZE) remains statistically insignificant. Among the control variables, leverage (LEV) continues to show a positive and significant effect, whereas return on assets (ROA) maintains a strong negative relationship with fraud likelihood.
The consistency of these findings across different model specifications confirms the robustness and reliability of the study's results.

Summary, Conclusion and Recommendations

5.1 Summary of Findings

This study examined the effect of audit committee characteristics on the financial statement fraud likelihood of listed deposit money banks in Nigeria over the period 2015 to 2025. Specifically, the study focused on audit committee size, independence, financial expertise, and meeting frequency as key governance mechanisms influencing financial reporting integrity.

Using panel data analysis, supported by System Generalized Method of Moments (Sys-GMM), the study revealed several important findings. First, audit committee size was found to have a negative but relatively weak effect on financial statement fraud likelihood, suggesting that while larger committees may enhance oversight, their effectiveness depends on other qualitative attributes. Second, audit committee independence exhibited a strong negative and statistically significant effect on financial statement fraud likelihood. This indicates that a higher proportion of independent non-executive directors improves monitoring effectiveness and reduces the tendency for financial misreporting. Third, audit committee financial expertise emerged as one of the most significant determinants of fraud reduction. The results showed that committees with members possessing accounting and financial knowledge are more effective in detecting and preventing earnings manipulation. Fourth, audit committee meeting frequency demonstrated a negative but less significant relationship with fraud likelihood, implying that while regular meetings are important, their effectiveness depends on the quality of deliberations and engagement.

Among the control variables, leverage was found to increase fraud likelihood, while profitability (measured by return on assets) reduced the likelihood of financial statement fraud. Firm size showed a weak negative relationship, while board size was not statistically significant.

5.2 Conclusion

Based on the empirical findings, this study concludes that audit committee characteristics play a critical role in reducing financial statement fraud in Nigerian deposit money banks. In particular, audit committee independence and financial expertise are the most effective mechanisms for enhancing financial reporting quality and curbing managerial opportunism.

The findings support the theoretical propositions of agency theory and fraud triangle theory, which emphasize the importance of effective monitoring and the reduction of opportunities for fraudulent behavior. The study also highlights that mere compliance with corporate governance requirements is insufficient; rather, the quality and composition of audit committees are essential for achieving meaningful oversight. Overall, strengthening audit committee effectiveness is crucial for improving transparency, restoring investor confidence, and ensuring the stability of the Nigerian banking sector.

5.3 Recommendations

Based on the findings of this study, the following recommendations are proposed:

1. **Enhancement of Audit Committee Independence:**

Regulatory authorities should enforce stricter requirements to ensure a higher proportion of independent non-executive directors on audit committees, as independence significantly reduces financial statement fraud.

2. **Strengthening Financial Expertise Requirements:**

Banks should prioritize the appointment of audit committee members with strong accounting and financial backgrounds to improve the committee's ability to detect irregularities.

3. **Optimal Audit Committee Size:**
While larger committees may provide broader expertise, banks should maintain an optimal size that ensures efficiency and effective decision-making.

4. **Improvement in Meeting Effectiveness:**
Beyond increasing meeting frequency, audit committees should focus on improving the quality of discussions, preparation, and engagement during meetings.

5. **Regulatory Monitoring and Enforcement:**
Regulatory bodies such as the Central Bank of Nigeria and Financial Reporting Council should strengthen oversight mechanisms to ensure compliance with governance standards.

5.4 Contribution to Knowledge

This study contributes to the existing literature by providing empirical evidence on the relationship between audit committee characteristics and financial statement fraud likelihood within the Nigerian banking sector. Unlike prior studies, it employs a ten-year panel dataset and robust estimation techniques, thereby offering more reliable and comprehensive insights.

5.5 Suggestions for Further Studies

Future research may extend this study by:

- Including non-banking financial institutions and other sectors
- Incorporating additional governance variables such as board diversity
- Applying alternative fraud detection models
- Exploring cross-country comparisons

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