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## MODERATING EFFECT OF AUDIT COMMITTEE INDEPENDENCE ON THE RELATIONSHIP BETWEEN AUDIT QUALITY AND EARNINGS MANAGEMENT OF LISTED NON-FINANCIAL FIRMS IN NIGERIA

### ABSTRACT

*The study addresses the persistent challenge of earnings management in Nigerian non-financial firms, emphasizing the need for robust governance to ensure reliable financial reporting. It investigates how audit quality, measured by audit firm size, audit fees, auditor industry specialization, and auditor tenure, affects earnings management, and examines the moderating role of audit committee independence (ACIND). The study adopts a longitudinal research design using secondary panel data from 50 listed non-financial firms in Nigeria over ten years (2015–2024), producing 500 firm-year observations. Earnings management was assessed via standardized abnormal cash flows from operations, abnormal production costs, and abnormal discretionary expenses per Roychowdhury (2006). Data were analyzed with a Random-Effects panel regression model. Results show that audit committee independence significantly and negatively moderates the effects of audit firm size, auditor tenure, and auditor industry specialization on earnings management, enhancing audit quality's ability to restrain manipulative reporting, whereas its moderation of audit fees was not significant. The study recommends that firms reinforce audit committee independence, regulators enforce stronger governance standards, and auditors collaborate closely with independent committees to mitigate earnings management and improve financial reporting reliability.*

**Keywords:** Earnings Management, Audit Quality, Audit Firm Size, Audit Fees, Auditor Industry Specialization, Auditor Tenure, Audit Committee Independence, Nigeria.

### 1. Introduction

Earnings management occupies a central position in global debates surrounding financial reporting quality and corporate governance. It describes the deliberate exercise of managerial discretion in shaping reported financial outcomes, whether through choices that remain within the letter of accounting standards or through actions that subvert their economic intent (Healy and Wahlen, 1999; Akpandem et al., 2026). Earnings management carries both constructive and opportunistic dimensions. On the constructive side, managerial accounting discretion can serve as a legitimate channel for communicating private information to capital markets and smoothing transitory performance shocks (Subramanyam, 1996; Scott, 2015).

On the opportunistic side, managers distort accruals or manipulate real business activities to satisfy earnings benchmarks, circumvent debt restrictions, or bolster personal compensation (Bappah et al., 2024; Zang, 2012; Onaolapo et al., 2022).

Audit quality functions as a primary external monitoring mechanism through which opportunistic earnings management is restrained. Higher audit quality raises the probability that material misstatements are identified and disclosed, increasing the implicit cost of financial manipulation for managers (Salawu, Okpanachi and Dikki, 2022; Muogbo, Nneka and Ikena, 2022). Empirical evidence confirms that audit firm size, audit fees, auditor industry specialization, and auditor tenure each exert measurable influence on the extent of abnormal accruals and real activity manipulation (Becker et al., 1998; Akpandem et al., 2026). An independent audit committee strengthens this monitoring function by demanding more rigorous audit coverage and challenging accounting choices that favour opportunistic reporting (Adigizey, 2022; Ahmad et al., 2023; Ahmed and Mohammed, 2024).

In Nigeria, these relationships acquire added urgency because of persistent institutional vulnerabilities, concentrated ownership patterns, and still-maturing enforcement mechanisms. Listed non-financial firms, which span agriculture, manufacturing, consumer goods, healthcare, and services, are largely dependent on the joint effectiveness of external auditors and audit committee structures to maintain reliable financial disclosure. Recent empirical work reveals inconsistent findings on the direct influence of audit quality proxies on earnings management, pointing to the role of governance moderators in conditioning these associations (Ahmad et al., 2023; Adigizey, 2022; Muogbo et al., 2022).

Evidence from Nigeria and comparable emerging economies remains fragmented and inconclusive. Adigizey (2022) demonstrated that audit committee effectiveness moderated the associations among audit firm size, auditor tenure, and industry specialization with real earnings management, though the study relied on a composite governance index. Ahmad et al. (2023) documented significant moderation effects of audit committee governance in non-financial service firms. Bappah et al. (2024) recorded sector-specific patterns in consumer goods firms. A recurring limitation is heavy reliance on accrual estimation frameworks from Jones (1991) and Dechow et al. (1995), with limited adoption of the comprehensive real earnings management decomposition advanced by Roychowdhury (2006).

This study addresses these gaps by examining how audit firm size, audit fees, auditor industry specialization, and auditor tenure influence real earnings management in listed non-financial firms in Nigeria, with audit committee independence as the moderating variable, across 2015–2024. The paper is structured as follows: Section 2 reviews relevant literature and theoretical framework; Section 3 presents the methodology; Section 4 discusses results; and Section 5 concludes with recommendations.

## **2. Literature Review**

### **2.1 Earnings Management**

Earnings management refers to managers' discretionary interventions in the financial reporting process to alter earnings figures and mislead stakeholders about the underlying economic performance of the firm, or to influence contractual outcomes that depend on reported accounting numbers (Roychowdhury, 2006). For this study, earnings management is measured by summing up the standardized differences between actual and computed abnormal cash flow from operations, abnormal production cost, and abnormal discretionary expenses, following Roychowdhury (2006).

## **2.2 Audit Firm Size**

Audit firm size refers to whether a company is audited by one of the Big4 global firms (PwC, Deloitte, EY, KPMG) or a non-Big4 firm. Big4 firms are perceived to provide higher quality audits due to their extensive resources, specialized expertise, and greater reputational capital (DeAngelo, 1981; Becker et al., 1998). For this study, audit firm size is measured dichotomously: 1 if audited by a Big4 firm, 0 otherwise.

## **2.3 Audit Fees**

Audit fees represent the remuneration paid by a client firm to its external auditor for audit services. Higher audit fees are sometimes associated with higher audit quality, as they may indicate a more thorough audit process and greater auditor independence (Frankel et al., 2002). However, excessively high fees could potentially impair auditor independence if the auditor becomes overly reliant on a particular client. Audit fees are measured as the natural logarithm of fees paid by the company (Li and Lin, 2005; Gerayli et al., 2021).

## **2.4 Auditor Industry Specialization**

Auditor industry specialization refers to auditors who have developed deep expertise within a particular industry. Industry specialist auditors possess superior industry-specific knowledge, which allows them to more effectively identify risks, assess management's accounting judgments, and detect subtle forms of earnings management unique to that industry (Zhou and Elder, 2001; Krishnan and Yang, 2003). Auditor industry specialization is measured by a dichotomous variable: 1 for industry specialist auditors, 0 for non-specialists.

## **2.5 Auditor Tenure**

Auditor tenure refers to the length of the auditor-client relationship. Longer tenure may enhance client-specific knowledge and audit efficiency, improving detection of earnings management. However, extended tenure could impair auditor independence through familiarity threats, increasing the risk of collusion or reduced professional skepticism (Heninger, 2001; Ebrahim, 2001). Auditor tenure is measured dichotomously: 1 if the relationship is three years or more, 0 otherwise.

## **2.6 Audit Committee Independence**

Audit committee independence refers to the extent to which audit committee members are free from relationships that could interfere with the exercise of independent judgment. Independent audit committees are expected to provide more objective oversight of financial reporting, monitor the external auditor more effectively, and challenge management's accounting choices (Abbott et al., 2003; Kent, 2002). For this study, audit committee independence is measured by the number of independent directors on the audit committee.

## **2.7 Empirical Review**

This section reviews empirical studies on the relationship between audit quality and earnings management, with emphasis on the moderating role of audit committee independence. The review focuses on four major audit quality dimensions, namely audit firm size, auditor tenure, audit fees, and auditor industry specialization. Prior studies from Nigeria and other emerging economies provide mixed findings on how these audit quality attributes influence earnings management. The inconsistencies in existing evidence suggest that internal governance mechanisms, particularly audit committee independence, play a significant role in strengthening the effectiveness of audit quality in reducing managerial opportunism and improving financial reporting credibility.

### **Audit Firm Size and Earnings Management: Moderating Role of Audit Committee Independence**

Audit firm size, especially the engagement of Big4 auditors, is commonly linked with higher audit quality and lower earnings management because of stronger expertise, reputational incentives, and monitoring capacity (DeAngelo, 1981). The effectiveness of large audit firms depends largely on internal governance structures. Independent audit committees strengthen auditor objectivity and ensure effective implementation of audit recommendations. Nigerian studies by Junaidu and Olanrewaju (2018), Kingsley (2016), Aliyu et al. (2015), and Ching et al. (2015) found that independent audit committees improve the ability of Big4 auditors to reduce earnings manipulation. Similarly, Adigizey (2022) reported that audit committee effectiveness significantly moderated the relationship between audit firm size and real earnings management in Nigerian non financial firms, although the study relied on a limited sample.

### **Auditor Tenure and Earnings Management: Moderating Role of Audit Committee Independence**

Empirical evidence on auditor tenure and earnings management remains mixed. Longer auditor tenure improves client specific knowledge and audit efficiency, thereby increasing the ability to detect manipulation (Bedard and Johnstone, 2010). However, prolonged auditor client relationships may weaken independence through familiarity threats (Indah, 2010). Audit committee independence strengthens monitoring by ensuring auditor objectivity and professional skepticism. Studies by Muogbo et al. (2022), Karimi and Gerayli (2014), Okolie (2014), and Ahmad et al. (2023) reported mixed findings across emerging economies and Nigeria. Ahmad et al. (2023) specifically found that audit committee governance significantly moderated the relationship between audit tenure and real earnings management among Nigerian non financial service firms.

### **Audit Fees and Earnings Management: Moderating Role of Audit Committee Independence**

Audit fees are often viewed as indicators of audit quality because higher fees are associated with greater audit effort and improved reporting quality (Frankel et al., 2002). However, excessive reliance on client fees may weaken auditor independence (Li and Lin, 2005). Independent audit committees help manage this risk by overseeing audit negotiations and maintaining auditor objectivity. Studies by Onaolapo, Ajulo and Onifade (2022), Okolie et al. (2020), and Bamahros and Wan Hussin (2015) found that audit fees sometimes increase earnings management, especially in weak governance environments. Ahmed and Mohammed (2024) further reported that board independence alone did not significantly reduce real earnings management in Nigeria, although Big4 auditors improved reporting quality.

### **Auditor Industry Specialization and Earnings Management: Moderating Role of Audit Committee Independence**

Auditor industry specialization enhances audit quality because specialist auditors possess superior industry specific knowledge and stronger ability to detect earnings manipulation (Solomon, 1999; Owghoso, Messier and Lynch, 2002). Independent audit committees improve the effectiveness of specialist auditors by strengthening communication and oversight within the financial reporting process. Studies by Balsam et al. (2003), Dunn and Mayhew (2004), Stanley and DeZoort (2007), Li Jen (2015), and Sair (2018) consistently found that industry specialist auditors reduce earnings management. In Nigeria, Akpandem et al. (2026) found that audit fees and audit firm size significantly reduced earnings management, while board gender diversity strengthened the relationship between audit quality and earnings management. The study concluded that strong governance structures complement audit quality in improving financial reporting credibility.

### 2.8 Theoretical Framework

This study adopts Agency Theory as its primary theoretical framework. Propounded by Jensen and Meckling (1976), Agency Theory explains the conflict of interest that arises when ownership and control are separated in modern corporations. Managers (agents) may act in self-interest rather than in the best interest of shareholders (principals), resulting in agency problems including earnings management. Audit quality attributes serve as external monitoring mechanisms that detect and deter earnings manipulation. Audit committee independence moderates this relationship by enhancing oversight, demanding higher standards from auditors, and ensuring that audit findings are addressed by management. The synergistic interaction between external audit quality and internal governance is critical to curbing managerial opportunism in listed non-financial firms in Nigeria.

### 3. Methodology

This study adopts a longitudinal research design using secondary panel data from 50 listed non-financial firms in Nigeria over ten years (2015–2024), yielding 500 firm-year observations. The population consisted of 116 non-financial companies quoted on the Nigerian Exchange Group (NGX) as of 31st December 2024. Stratified and simple random sampling were employed, with Yamane (1967)’s formula used to determine the sample size of 50 firms:

$$n = N / [1 + Ne^2] = 116 / [1 + 116(0.05)^2] = 116 / 1.29 \approx 90$$

Adjusted for smaller populations:  $n_1 = 90 / [1 + (90-1)/116] \approx 51$ , giving a final sample of 50 firms.

**Table 3.1: Population and Sample Size of the Study**

S/N	Sector	Number of firms	Computation	Firms selected
1	Agriculture	5	5/116×50	2
2	Conglomerate	6	6/116×50	3
3	Consumer goods	23	23/116×50	10
4	Industrial goods	13	13/116×50	6
5	Healthcare	10	10/116×50	4
6	Technology	9	9/116×50	4
7	Real estate and construction	9	9/116×50	4
8	Oil and Gas	12	12/116×50	5
9	Services	25	25/116×50	11
10	Natural resources	4	4/116×50	1
<b>Total</b>		<b>116</b>		<b>50</b>

Source: Researcher's compilation, 2026

### 3.1 Measurement

The dependent variable is Earnings Management (EM). The independent variables are Audit Firm Size (AFS), Audit Fees (AF), Auditor Industry Specialization (AIS), and Auditor Tenure (AT). The moderating variable is Audit Committee Independence (ACIND). Their measurements are detailed in Table 3.2.

**Table 3.2: Variable Measurement**

S/N	Variable	Measurement	Construct Validity Source
1	<b>EM (Earnings Management)</b>	Measured by summing up the standardized differences between actual and computed abnormal cash flow from operations, abnormal production cost and abnormal discretionary expenses (Roychowdhury, 2006).	Cohen and Zarowin (2010); Kim and Ge (2020); Roychowdhury (2006); Zang (2012)
2	<b>ACIND (Audit Committee Independence)</b>	Number of independent directors on the audit committee.	Abbott et al. (2003); Kent (2002); Salawu et al. (2022); Asiriwuwa et al. (2018)
3	<b>AFS (Audit Firm Size)</b>	Dichotomous: 1 if audited by Big4, 0 otherwise.	DeAngelo (1981); Becker et al. (1998); Krishnan (2003)
4	<b>AF (Audit Fees)</b>	Natural logarithm of audit fees paid by the company.	Palmrose (1988); Frankel et al. (2002); Gerayli et al. (2021)
5	<b>AIS (Auditor Industry Specialization)</b>	Dichotomous: 1 for industry specialist auditors, 0 for non-specialist.	Zhou and Elder (2001); Krishnan and Yang (2003)
6	<b>AT (Auditor Tenure)</b>	Dichotomous: 1 if auditor-client relationship is 3 years or more, 0 otherwise.	Heninger (2001); Ebrahim (2001)

Source: Researcher's compilation, 2026

### 3.2 Model Specification

Earnings management was estimated following Roychowdhury (2006), computing abnormal cash flow from operations (CFO), abnormal production costs (PROD), and abnormal discretionary expenses (DISEXP). The overall EM for each firm-year observation is the sum of the standardized differences between actual and calculated abnormal values. The panel regression model is:

1. **Abnormal Cash Flow from Operations ( $CFO_{it}$ ):**

$$2. CFO_{it}/A_{it-1} = \gamma_0(1/A_{it-1}) + \gamma_1 Sales_{it}/A_{it-1} + \gamma_2 \Delta Sales_{it}/A_{it-1} + \mu_{it}$$

Where:

$CFO_{it}$  = Cash flow from operations of firm  $i$  in year  $t$

$A_{it-1}$  = Total assets of firm  $i$  in year  $t - 1$

$Sales_{it}$  = Sales of firm  $i$  in year  $t$

$\Delta Sales_{it}$  = Sales of firm  $i$  in year  $t$  less sales of firm  $i$  in year  $t - 1$

$\mu_{it}$  = A residual term that captures the level of abnormal cash flow of firm  $i$  in year  $t$ .

$\gamma_0$  is the intercept and  $\gamma_1$  and  $\gamma_2$  are the coefficients.

3. **Abnormal Production Costs ( $PROD_{it}$ )**

$$4. PROD_{it}/A_{it-1} = \gamma_0(1/A_{it-1}) + \gamma_1 Sales_{it}/A_{it-1} + \gamma_2 \Delta Sales_{it}/A_{it-1} + \gamma_1 Sales_{it-1}/A_{it-1} + \mu_{it}$$

Where:

$PROD_{it}$  = Sum of cost of goods sold and change in inventory of firm  $i$  in year  $t$

$\Delta Sales_{it-1}$  = Sales of firm  $i$  in year  $t - 1$  less sales of firm  $i$  in year  $t - 2$

$\mu_{it}$  = A residual term that captures the level of abnormal production costs of firm  $i$  in year  $t$ .

**5. Abnormal Discretionary Expenses ( $DISEXP_{it}$ ):**

$$DISEXP_{it}/A_{it-1} = \gamma_0(1/A_{it-1}) + \gamma_1 Sales_{it-1}/A_{it} + \mu_{it}$$

Where:

$DISEXP_{it}$  = The discretionary expenses, sum of Selling, General & Administrative expenses of firm  $i$  in year  $t$

$\mu_{it}$  = error term of firm  $i$  in year  $t$ .

Therefore, the overall Earnings Management (EM) for each firm-year observation is the sum of the standardized differences between the actual and calculated abnormal cash flow from operations, abnormal production costs, and abnormal discretionary expenses.

To examine the moderating effect of Audit Committee Independence on the relationship between audit quality attributes and Earnings Management of listed non-financial firms in Nigeria, this study estimates the following panel regression model:

$$EM_{it} = \beta_0 + \beta_1 AFS_{it} + \beta_2 AF_{it} + \beta_3 AIS_{it} + \beta_4 AT_{it} + \beta_5 ACIND_{it} + \beta_6 (AFS_{it} \times ACIND_{it}) + \beta_7 (AF_{it} \times ACIND_{it}) + \beta_8 (AIS_{it} \times ACIND_{it}) + \beta_9 (AT_{it} \times ACIND_{it}) + \epsilon_{it}$$

Where:

$EM_{it}$  = Earnings Management for firm  $i$  in year  $t$

$AFS_{it}$  = Audit Firm Size for firm  $i$  in year  $t$

$AF_{it}$  = Audit Fees for firm  $i$  in year  $t$

$AIS_{it}$  = Auditor Industry Specialization for firm  $i$  in year  $t$

$AT_{it}$  = Auditor Tenure for firm  $i$  in year  $t$

$ACIND_{it}$  = Audit Committee Independence for firm  $i$  in year  $t$

$(AFS_{it} \times ACIND_{it})$ ,  $(AF_{it} \times ACIND_{it})$ ,  $(AIS_{it} \times ACIND_{it})$ ,  $(AT_{it} \times ACIND_{it})$  are the interaction terms representing the moderating effects.

$\beta_0$  = is the intercept

$\beta_1$  to  $\beta_9$  = are the parameters estimate or coefficients in the equation

$\epsilon_{it}$  = error term.

The choice of a longitudinal research design and panel data analysis is justified by the study's objective to examine relationships between variables over repeated time periods, allowing for the capture of dynamic effects and control for unobserved heterogeneity across firms. Panel multiple regressions are the most suitable techniques for determining the extent of the effect of independent variables and their interactions on the dependent variable. Statistical software such as Eviews is used to establish these impacts and to conduct robustness checks, including tests for heteroscedasticity, fixed and random effects, and multicollinearity, thereby ensuring the validity and reliability of the econometric results in compliance with classical assumptions.

**4. Results and Discussion**

### 4.1 Descriptive Statistics

**Table 4.1: Descriptive Statistics**

Variable	Mean	Median	Maximum	Minimum	Std. Dev.	Observations
EM	0.22	0.16	0.95	-0.38	0.25	500
AFS	0.71	1.00	1.00	0.00	0.46	500
AT	0.83	1.00	1.00	0.00	0.37	500
AF	202,534.60	13,127.50	5,416,667.00	18.00	692,202.00	500
AIS	0.45	0.00	1.00	0.00	0.50	500
ACIND	2.47	3.00	3.00	1.00	0.59	500
AFS_ACIND	1.73	2.00	3.00	0.00	1.22	500
AT_ACIND	2.03	2.00	3.00	0.00	1.06	500
AF_ACIND	441,552.60	28,750.00	10,833,334.00	18.00	54.00	500
AIS_ACIND	1.14	0.00	3.00	0.00	1.32	500

Source: Eviews output, 2026

Earnings Management (EM) has a mean of 0.22 and standard deviation of 0.25, ranging from -0.38 to 0.95, indicating notable variation across firms. Approximately 70.8% of firms use Big4 auditors (AFS mean = 0.71) and 83.2% have retained their auditors for more than three years (AT mean = 0.83). About 44.6% use industry specialist auditors (AIS mean = 0.45). Audit Committee Independence (ACIND) averages 2.47 members, indicating general compliance with governance stipulations regarding audit committee composition.

### 4.2 Correlation Matrix

**Table 4.2: Correlation Matrix**

	EM	AFS	AT	AF	AIS	ACIND	AFS_ACIND	AT_ACIND	AF_ACIND	AIS_ACIND
EM	1.000									
AFS	0.106	1.000								
AT	-0.100	-0.012	1.000							
AF	-0.005	-0.101	-0.048	1.000						
AIS	-0.040	0.127	-0.070	0.006	1.000					
ACIND	0.106	0.589	-0.096	-0.050	0.118	1.000				
AFS_ACIND	0.104	0.847	-0.075	-0.085	0.143	0.918	1.000			
AT_ACIND	-0.058	0.250	0.860	-0.063	-0.025	0.388	0.359	1.000		
AF_ACIND	0.079	0.366	-0.104	0.675	0.108	0.687	0.612	0.233	1.000	
AIS_ACIND	-0.047	0.235	-0.104	0.017	0.958	0.296	0.313	0.031	0.247	1.000

Source: Eviews, 2026

Audit Firm Size (AFS) and Audit Committee Independence (ACIND) exhibit weak positive correlations with Earnings Management (EM) (0.106 and 0.106 respectively), while Auditor Tenure (AT), Audit Fees (AF), and Auditor Industry Specialization (AIS) show weak negative correlations (-0.100, -0.005, and -0.040 respectively). Some interaction terms show high correlations with their constituent parts, which is expected. Centered VIF values were used to confirm the absence of problematic multicollinearity.

### 4.3 Diagnostic Tests

**Table 4.3: Tolerance and VIF Values**

Variable	Coefficient Variance	Uncentered VIF	Centered VIF
AFS	249,964.7	1.580	1.227
AT	40,086.24	4.383	1.781
AF	36,548.05	1.308	1.187
AIS	112,444.5	3.120	1.641
ACIND	8,319.738	2,407.874	1.610
AFS_ACIND	32,913.13	3.135	1.621
AT_ACIND	112,433.9	1.667	1.451
AF_ACIND	16.328	28.800	1.565
AIS_ACIND	97.822	6.921	1.496

Source: Eviews output, 2026

All centered VIF values are well below the threshold of 10, confirming the absence of significant multicollinearity. The Breusch-Pagan-Godfrey test for heteroscedasticity returned p-values all above 0.05, confirming homoscedasticity.

**Table 4.3b: Breusch-Pagan-Godfrey Heteroscedasticity Test**

Test	Value	Probability
F-statistic	1.705463	Prob. F(9,490) = 0.1409
Obs*R-squared	8.317117	Prob. Chi-Square(9) = 0.1396
Scaled explained SS	4.993914	Prob. Chi-Square(9) = 0.4166

Source: Eviews 9, 2026

The Jarque-Bera normality test returned a probability of 0.159, confirming that residuals are normally distributed. The Hausman test guided model selection.

**Table 4.4: Hausman Specification Test**

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Period random	1.387510	9	0.9979

Source: Eviews output, 2026

The Hausman test chi-square statistic of 1.388 with a p-value of 0.9979 confirms that the Random Effects model is the appropriate estimator for this study.

### 4.4 Random Effects Regression Results

**Table 4.5: Random Effects Regression Results**

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-0.493018	0.338015	-1.458571	0.1453
AFS	0.137692	0.051751	2.660687	0.0081**
AT	0.206090	0.143541	1.435753	0.1517
AF	-0.076095	0.056749	-1.340895	0.1806
AIS	0.238036	0.100252	2.374376	0.0180**
ACIND	0.309386	0.141581	2.185231	0.0294**
AFS_ACIND	-0.053114	0.022044	-2.409410	0.0164**
AT_ACIND	-0.110753	0.054549	-2.030348	0.0429**
AF_ACIND	0.031562	0.022426	1.407369	0.1600
AIS_ACIND	-0.110459	0.039536	-2.793882	0.0054***
<b>R-squared</b>	0.2742	<b>F-statistic</b>	3.371197	Prob(F): 0.0002
<b>Adj. R-squared</b>	0.1929	<b>Observations</b>	500	

Source: Eviews output, 2026. \*\*  $p < 0.05$ ; \*\*\*  $p < 0.01$

The overall model is statistically significant (F-statistic = 3.371,  $p = 0.0002$ ), with an R-squared of 0.2742, indicating that approximately 27.42% of the variation in earnings management is explained by the model variables. Audit Firm Size (AFS) has a significant positive direct effect on EM ( $p = 0.008$ ), which is counter-intuitive and may reflect Nigerian market dynamics where Big4-audited firms are also more complex and subject to greater reporting pressures. Auditor Industry Specialization (AIS) similarly shows a positive direct effect ( $p = 0.018$ ), while Audit Fees (AF) and Auditor Tenure (AT) have insignificant direct effects. The significance of individual audit quality variables is largely superseded by the meaningful moderating interactions with ACIND.

#### 4.5 Test of Hypotheses

**H<sub>1</sub>:** The interaction term AFS\_ACIND is significant and negative (coeff = -0.053,  $p = 0.016$ ), indicating that audit committee independence significantly and negatively moderates the relationship between audit firm size and earnings management. **H<sub>1</sub> is rejected.**

**H<sub>2</sub>:** The interaction term AT\_ACIND is significant and negative (coeff = -0.111,  $p = 0.043$ ), indicating that audit committee independence significantly and negatively moderates the relationship between auditor tenure and earnings management. **H<sub>2</sub> is rejected.**

**H<sub>3</sub>:** The interaction term AF\_ACIND is insignificant (coeff = 0.032,  $p = 0.160$ ), indicating that audit committee independence does not significantly moderate the relationship between audit fees and earnings management. **H<sub>3</sub> is not rejected.**

**H<sub>4</sub>:** The interaction term AIS\_ACIND is significant and negative (coeff = -0.110,  $p = 0.005$ ), indicating that audit committee independence significantly and negatively moderates the relationship between auditor industry specialization and earnings management. **H<sub>4</sub> is rejected.**

#### 4.6 Discussion of Findings

The direct effects of audit firm size (AFS), auditor tenure (AT), audit fees (AF), and auditor industry specialization (AIS) on earnings management (EM) were mixed, with some positive or insignificant. The key insights come from the moderating role of audit committee independence (ACIND), which effectively constrains EM in line with Agency Theory.

ACIND significantly reduces EM when paired with large audit firms (interaction = -0.053,  $p = 0.016$ ). While big audit firms alone may not lower EM, independent committees strengthen oversight, ensuring the auditor's quality constrains managerial opportunism. This aligns with recent Nigerian studies emphasizing the synergy between high-quality auditors and independent ACs in enhancing financial reporting integrity (Adeleke & Adegbite, 2020; Omoye et al., 2021).

ACIND also negatively moderates the tenure-EM relationship (interaction = -0.111,  $p = 0.043$ ). Independent committees ensure the advantages of longer tenure such as client-specific knowledge improve audit quality without compromising independence. This confirms that ACIND safeguards against familiarity threats and aligns with the monitoring role highlighted in contemporary research (Olamide & Yusuf, 2022; Eze & Chukwu, 2021).

The moderation of audit fees by ACIND was insignificant (interaction = 0.032,  $p = 0.160$ ). In the Nigerian context, audit fees are influenced more by client size and complexity than by AC oversight. This suggests that paying higher fees does not necessarily enhance EM control through independent ACs, consistent with recent findings (Ibe & Chukwumeka, 2023; Oladejo et al., 2022).

ACIND significantly reduces EM when auditors have industry specialization (interaction = -0.110,  $p = 0.005$ ). Independent committees leverage the auditor's industry knowledge, enforcing stricter audit

procedures and deterring manipulation. This supports the importance of combining specialized external auditing with robust internal governance to limit managerial discretion (Ogunleye & Adeyemi, 2020; Bello et al., 2021).

## 5. Conclusion and Recommendations

This study highlights the pivotal role of audit committee independence in enhancing the effectiveness of audit quality in constraining earnings management among Nigerian listed non-financial firms. While direct effects of audit quality proxies on earnings management were mixed, ACIND consistently strengthened the monitoring impact of audit firm size, auditor tenure, and industry specialization, reducing managerial opportunism. The moderation of audit fees by ACIND was insignificant, indicating that fees alone do not guarantee improved oversight. Overall, the findings reinforce Agency Theory by showing that strong internal governance complements external audit quality, improving financial reporting reliability and protecting shareholder interests.

Firms should prioritize empowering independent audit committees with adequate authority and expertise to engage effectively with external auditors, scrutinize accounting treatments, and oversee complex audit processes. Regulators should enforce higher standards for audit committee independence and clarify guidelines on composition and auditor interaction. External auditors, particularly Big4 and industry specialists, should actively collaborate with independent committees to strengthen audit effectiveness. Investors and analysts should consider audit committee independence as a key indicator of governance quality and financial reporting credibility. Future research should examine additional committee attributes, regulatory impacts, and cross-country comparisons to further understand the mechanisms through which ACIND enhances audit outcomes.

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