

AUDIT COMMITTEE CHARACTERISTICS AND EARNINGS QUALITY OF LISTED OIL AND GAS COMPANIES IN NIGERIA

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ABSTRACT

This study investigates the relationship between audit committee characteristics and earnings quality among listed oil and gas companies in Nigeria. A longitudinal panel research design was employed, covering eleven oil and gas firms listed on the Nigerian Exchange Group as at 31 December 2023. Based on data availability and continuity criteria, eight firms were selected, producing eighty firm-year observations over the 2014-2023 period. Secondary data were obtained from audited annual reports and analysed using descriptive statistics, Pearson correlation, and panel regression techniques. Following the Hausman specification test, the random effects model was adopted. The findings indicate that audit committee size exerts a negative and statistically significant effect on the accrual component ($\beta = -0.00075$, $p < 0.05$), suggesting that larger audit committees are associated with reduced accrual intensity and, by implication, improved earnings quality. Conversely, audit committee accounting expertise displays a positive and statistically significant association with the accrual component ($\beta = 0.0173$, $p < 0.05$), implying that a greater presence of accounting experts corresponds with higher accrual levels and potentially lower earnings quality. Audit committee gender diversity exhibits a negative but statistically insignificant relationship with the accrual component ($\beta = -0.0163$, $p > 0.10$). The results suggest that audit committee characteristics do not uniformly enhance earnings quality. While committee size appears to strengthen monitoring effectiveness, the role of accounting expertise warrants closer contextual scrutiny. The study contributes sector-specific evidence from Nigeria's oil and gas industry and offers insights relevant to corporate governance reform in frontier markets.

Keywords: Audit Committee Size, Audit Committee Accounting Expertise, Audit Committee Gender Diversity, Earnings Quality, Accrual Component, Oil and Gas Industry, Nigeria

1.0 Introduction

Financial reporting integrity remains foundational to the functioning of capital markets. In both developed and emerging economies, the credibility of reported earnings influences investment allocation, risk assessment, and regulatory oversight. Within this architecture, corporate governance mechanisms operate as institutional safeguards designed to constrain managerial opportunism and preserve informational reliability. Among these mechanisms, the audit committee occupies a structurally central position.

Earnings, as reported in financial statements, represent not merely an accounting outcome but a signal of firm performance and managerial stewardship. The informational value of earnings depends on the extent to which reported figures reflect underlying economic activity rather than discretionary accounting choices. Where earnings quality deteriorates, information asymmetry widens, capital misallocation increases, and investor confidence weakens. Consequently, the governance structures that oversee the financial reporting process merit sustained scholarly attention.

In Nigeria, statutory backing for audit committees derives from the Companies and Allied Matters Act (CAMA) (2004, as amended), Section 359(3), which mandates their establishment in public companies. The legislative intent is clear: to provide an oversight mechanism capable of bridging the informational divide between management and shareholders. As Galal et al. (2022) observe, the audit committee constitutes a core instrument within the corporate governance framework, serving monitoring and advisory functions that bear directly on financial reporting outcomes. Li et al. (2012) further emphasize its role in mitigating information asymmetry by scrutinizing managerial actions and ensuring compliance with reporting standards.

Despite this institutional positioning, the effectiveness of audit committees cannot be assumed. Their capacity to enhance earnings quality depends on structural attributes size, expertise composition, and diversity each of which may shape monitoring dynamics in distinct ways. The Nigerian oil and gas sector provides a

particularly relevant context for examining these relationships. As a strategically significant industry contributing substantially to national revenue and foreign exchange, it has historically attracted scrutiny regarding transparency and financial discipline. Orbunde et al. (2021) note that allegations of questionable financial practices within the sector underscore the importance of robust governance mechanisms.

Existing empirical literature offers inconclusive evidence regarding how audit committee characteristics influence earnings quality. While many studies document constraining effects on earnings management, others report insignificant or even counterintuitive relationships. Moreover, much of the evidence originates from jurisdictions with regulatory and institutional environments markedly different from Nigeria's. Sector-specific evidence for Nigerian oil and gas firms remains limited.

This study therefore investigates whether audit committee size, audit committee accounting expertise, and audit committee gender diversity influence earnings quality proxied by the accrual component among listed oil and gas companies in Nigeria.

The guiding hypothesis is stated as follows:

research despite its macroeconomic significance. Second, it contributes to the growing discourse on corporate governance effectiveness in African frontier markets, where institutional enforcement mechanisms differ substantially from those in Western or East Asian economies that dominate existing scholarship. Third, by reporting results that partially diverge from conventional theoretical expectations particularly regarding accounting expertise the study invites a more context-sensitive interpretation of governance effectiveness, challenging assumptions that structural compliance necessarily translates into monitoring efficiency.

2.0 Literature Review

2.1 Conceptual Review

Earnings Quality

Earnings quality is a multidimensional construct whose meaning varies depending on analytical perspective. Ismail (2020) notes that accounting scholarship has produced multiple definitions, reflecting distinct theoretical orientations. From a valuation standpoint, Dechow and Schrand (2004) define high-quality earnings as those that faithfully capture current performance, predict future performance, and provide a reliable basis for firm valuation. Hodge (2003) conceptualizes earnings quality in terms of divergence between reported and "true" earnings, emphasizing measurement fidelity. Chan et al. (2004) frame earnings quality as the degree to which earnings reflect underlying operating fundamentals.

These perspectives converge on a central theme: earnings quality concerns the informational content and reliability of reported profits. Lo (2007) further clarifies the link between earnings quality and earnings management, arguing that increased discretionary manipulation diminishes earnings quality. Dichev et al. (2012) similarly highlight that accrual-based distortions undermine the credibility of reported performance.

Accrual accounting, while designed to improve matching and informational relevance, introduces managerial discretion. Dechow and Dichev (2002) show that accrual estimation errors are directly related to earnings quality. Thus, the accrual component measured as the difference between accounting earnings and operating cash flows provides an empirically tractable proxy for potential earnings management.

In this study, earnings quality is operationalized using the accrual component (NPAT - CFO). Lower accrual intensity is interpreted as indicative of higher earnings quality, consistent with DeAngelo (1981).

Audit Committee

Audit committees function as specialized monitoring bodies within the board structure. Atu (2014) traces their evolution in Nigeria to reforms aimed at strengthening financial oversight. Ekumankama and Uche (2009) argue that the

institutionalization of audit committees reflected concerns about auditor independence and financial reporting credibility. Theoretically, the audit committee enhances governance by overseeing financial reporting, liaising with external auditors, and supervising internal control systems. However, its effectiveness depends not merely on existence but on composition and structure.

Audit Committee Size

Committee size may influence monitoring capacity through resource availability and deliberative diversity. Bedard et al. (2004) suggest that larger committees may provide broader expertise and greater monitoring intensity. Garcia et al. (2012) link committee size to reduced earnings manipulation. Yet size may also introduce coordination costs or diffusion of responsibility. Vafeas (2005) cautions that excessively large committees may weaken effectiveness. Empirical findings are mixed: Mishra and Malhotra (2016) report reduced accrual management with larger committees, whereas Hassan and Ibrahim (2014) find contrary evidence. The literature therefore presents size as a double-edged attribute, warranting empirical verification within specific institutional contexts.

Audit Committee Accounting Expertise

Accounting expertise is widely regarded as a critical determinant of monitoring effectiveness. Ojeka et al. (2021) define accounting experts as individuals possessing professional accounting qualifications or substantial financial management experience. Proponents argue that financial literacy enhances the committee's ability to detect aggressive accounting practices (Detthamrong et al., 2017; Kusradi et al., 2016). However, empirical findings remain inconsistent. While Galal et al. (2022) and Idris et al. (2018) report constraining effects on earnings management, Orbunde et al. (2021) document a positive association between expertise and accrual manipulation within Nigerian oil marketing firms. This divergence suggests that expertise alone may not guarantee independence or professional skepticism. Contextual variables including enforcement quality, reputational incentives, and board dynamics may mediate outcomes.

Audit Committee Gender Diversity

Gender diversity has been theorized to influence monitoring behaviour through cognitive diversity and enhanced ethical sensitivity. Zalata et al. (2018) suggest that female directors may strengthen oversight and reduce opportunistic reporting. Galal et al. (2022) similarly document a negative relationship between gender diversity and earnings management. Nevertheless, representation levels often remain low in many emerging markets. Where female participation is limited, statistical effects may be attenuated. Thus, empirical verification within the Nigerian context remains necessary.

Firm Size

Firm size may affect earnings quality through multiple channels. Warfield et al. (1995) argue that larger firms face greater scrutiny and possess more developed internal control systems. Conversely, Sulistyanto (2008) suggests that political visibility may incentivize income smoothing. Cornett et al. (2009) find that analyst coverage reduces incentives for accrual manipulation. Given these competing influences, firm size is included as a control variable measured as the natural logarithm of total assets.

2.2 Empirical Review

2.2.1 Audit Committee Size and Earnings Quality

Galal et al. (2022) investigated how audit committee characteristics affect earnings management in Egypt using a sample of 80 non-financial Egyptian companies listed on the Egyptian Stock Exchange from 2012 to 2019. The results provided evidence that audit committee size has a significant negative relationship with earnings management, indicating that larger audit committees enhance earnings quality.

Hamdan (2020) examined the role of the audit committee in improving earnings quality using a sample of 23 industrial firms from the Gulf Cooperation Council financial markets during 2014-2018. The results showed that bigger audit committees are more likely to be associated with higher earnings quality.

Saleem et al. (2019) examined the impact of board and audit committee characteristics on accruals and real earnings management practices in Pakistan using data from 235 non-financial firms listed on the Pakistan Stock Exchange from 2008 to 2015. The analysis indicated that audit committee size was negatively related to accruals earnings management.

Idris et al. (2018) investigated the relationship between audit committee effectiveness and earnings management in Jordan using a panel data of 64 industrial firms listed on Amman Stock Exchange from 2009 to 2014. The results showed that audit committee size has a significant and negative impact on earnings management.

Soliman and Ragab (2014) examined the association between audit committee effectiveness and earnings management practices of 50 Egyptian companies listed on the Egyptian Stock Exchange from 2007 to 2010. The results indicated that audit committees size had a significant negative association with accrual components.

However, Hasan et al. (2019) investigated the existence of audit quality on the relationship between audit committee and financial reporting quality in Malaysia using 93 listed trading companies and found that audit committee size was not significantly associated with earnings management.

2.3 Theoretical Framework

Agency Theory

Jensen and Meckling (1976) conceptualize the firm as a nexus of contracts characterized by principal-agent conflicts. Information asymmetry enables managerial discretion, potentially leading to earnings manipulation. Audit committees function as monitoring mechanisms designed to reduce agency costs. Klein (2002) demonstrates that stronger audit committee structures correlate with reduced earnings management. Within this framework, audit committee characteristics influence monitoring effectiveness and, by extension, earnings quality.

Resource Dependence Theory

Davis and Cobb (2009) describe resource dependence theory as emphasizing the board's role in securing critical resources and legitimacy. Audit committee composition particularly expertise and diversity may enhance the board's capacity to access knowledge, strengthen oversight, and improve reporting credibility (Cohen et al., 2007; Badolato et al., 2014). Together, agency and resource dependence perspectives provide complementary explanations: one focused on monitoring incentives, the other on capability and resource provision.

2.3.2 Audit Committee Accounting Expertise and Earnings Quality

Galal et al. (2022) found that audit committee expertise has a significant negative relationship with earnings management in Egyptian companies, indicating that accounting experts on audit committees enhance earnings quality.

Orbunde et al. (2021) investigated the effect of audit quality on earnings management of listed oil marketing companies in Nigeria from 2011 to 2020 and found that audit committee financial expertise was positively and significantly associated with earnings management, suggesting that increase in financial expertise leads to increase in earnings management and decrease in earnings quality.

Nwoye et al. (2021) examined the effect of audit quality on earnings management in insurance companies in Nigeria and found that higher number of financial experts in audit committee increases accrual manipulation, while higher number of experts with accounting background in audit committee reduces performance manipulation.

Ngo and Lee (2021) examined the impact of audit committee characteristics on income management of companies listed on the Stock Exchange of Vietnam using 216 companies with 864 observations from 2015 to 2018. The results showed that the expertise of the audit committee is inversely related to the accrual components representing earnings management.

Hasan et al. (2019) found that audit committee financial expertise was not significantly associated with financial reporting quality in Malaysian companies.

Idris et al. (2018) found that audit committee financial expertise has a significant and negative impact on earnings management in Jordanian industrial firms.

2.3.3 Audit Committee Gender Diversity and Earnings Quality

Galal et al. (2022) found that audit committee gender diversity has a significant negative relationship with earnings management in Egyptian companies, indicating that female directors on audit committees enhance earnings quality.

Recent evidence from China demonstrates that audit committee gender diversity is significantly negatively associated with earnings management, indicating that female directors on audit committees enhance earnings quality.

Zalata et al. (2018) examined audit committee financial expertise, gender, and earnings management and found that the presence of female directors on audit committees improves monitoring effectiveness and constrains earnings management.

2.4 Gap in Literature

A thorough examination of empirical studies reveals several gaps in the existing literature. First, inconsistent and mixed evidence is indicated among prior studies both in Nigeria and internationally. For audit committee size, while some studies report negative associations with earnings management (Galal et al., 2022; Hamdan, 2020; Idris et al., 2018), others report insignificant effects (Hasan et al., 2019). For audit committee accounting expertise, findings range from negative and significant associations (Galal et al., 2022; Ngo & Lee, 2021) to positive and significant associations (Orbunde et al., 2021; Nwoye et al., 2021). Second, the majority of studies are foreign-based, and their applicability to the Nigerian context remains uncertain. Third, in Nigeria specifically, limited empirical evidence exists within the oil and gas industry. This study intends to fill these gaps by investigating the effects of audit committee characteristics on earnings quality in the context of listed oil and gas industries in Nigeria.

3.0 Methodology

3.1 Research Design

This approach suits studies that seek to examine relationships between variables across multiple time periods while controlling for firm-specific heterogeneity. Given that the research aims to quantify the relationship between audit committee characteristics and earnings quality among listed oil and gas companies, the panel design permits systematic observation across ten financial years (2014-2023) while maintaining consistency in measurement. Quantitative secondary data were extracted from audited annual reports and subsequently analysed to test the stated hypotheses.

3.2 Population and Sampling

The target population comprised all eleven (11) oil and gas companies listed on the Nigerian Exchange Group (NGX) as at 31st December, 2023. Sample size was determined using purposive sampling technique based on the following inclusion criteria: the company must be listed continuously on the Nigerian Exchange Group throughout the study period from 2014 to 2023; complete data must be available for all variables of interest across the ten-year period; financial statements must be consistently audited and prepared in Nigerian Naira; and annual reports must be accessible for the entire study period. Application of these criteria resulted in the exclusion of three companies due to incomplete data, yielding a final sample of eight (8) listed oil and gas companies and eighty (80) firm-year observations.

Table 3.1: Sample of the Study

S/N	TICKER	COMPANY
1	MOBIL	11 Plc.
2	ARDOVA	Ardova Plc
3	CAPOIL	Capital Oil Plc
4	CONOIL	Conoil Plc
5	ETERNA	Eterna Plc
6	MRS	MRS Oil Nigeria
7	OANDO	Oando Plc
8	TOTAL	Total Nigeria

Source: Researcher's Compilation (2026)

3.3 Sources of Data

Secondary data were collected from audited annual reports of the sampled companies covering the period 2014 to 2023. Annual reports were accessed through the Nigerian Exchange Group (NGX) fact book and electronic database, the official websites of the sampled companies, and published annual reports physically obtained from company headquarters. A structured data extraction template was developed to ensure consistent collection of net operating profit after interest and tax, cash flow from operating activities, audit committee size, number of accounting experts on the audit committee, number of female directors on the audit committee, and total assets

3.4 Measurement of Variables

Table 3.2: Measurement of Variables

Variable	Type	Measurement	Source
Earnings Quality (proxied by Accrual Component (AC))	Dependent	$NPAT_{it} - CFO_{it}$	Hamdan (2020); DeAngelo (1981)
Audit Committee Size (ACS)	Independent	Total number of members on the audit committee	Hamdan (2020)
Audit Committee Accounting Expertise (ACAE)	Independent	Number of audit committee members with relevant accounting qualifications	Ojeka et al. (2021)
Audit Committee Gender Diversity (ACGD)	Independent	Number of female members on the audit committee	Ojeka et al. (2021)
Firm Size (FS)	Control	Natural logarithm of average total assets	Kasim et al. (2018)

Source: Researcher's Compilation (2026)

3.5 Model Specification

The study adapted the DeAngelo (1981) model for measuring earnings quality. The original specification for accrual component is:

$$AC_{it} = NPAT_{it} - CFO_{it} \dots\dots\dots(3.1)$$

Consistent with the study's panel design and specific variable construction, the model was modified as follows:

$$AC_{it} = \beta_0 + \beta_1 ACS_{it} + \beta_2 ACAE_{it} + \beta_3 ACGD_{it} + \beta_4 FS_{it} + \varepsilon_{it} \dots\dots\dots(3.2)$$

Where AC_{it} represents the accrual component (earnings quality proxy); ACS_{it} represents audit committee size; $ACAE_{it}$ represents audit committee accounting expertise; $ACGD_{it}$ represents audit committee gender diversity; FS_{it} represents firm size; β_0 represents the intercept; β_1 , β_2 , β_3 , and β_4 represent the regression coefficients; ε_{it} represents the stochastic error term; i represents the cross-sectional identifier for firms 1 through 8; and t represents the time identifier for the period 2014 to 2023.

3.6 Techniques of Analysis

Data analysis proceeded in three stages. Descriptive statistics were computed to summarise variable distributions. Pearson correlation analysis was conducted to examine bivariate relationships. Inferential analysis employed panel regression techniques using pooled ordinary least squares, fixed effects model, and random effects model. The Hausman (1978) specification test was used to select between fixed effects and random effects models. All analyses were conducted using E-views version 9.0. Statistical significance was evaluated at the 1 per cent, 5 per cent, and 10 per cent levels.

4.0 Results and Discussion

4.1 Descriptive Statistics

The descriptive statistics provide an overview of the distributional properties of all variables employed in the study. Table 4.1 presents the mean, median, maximum, minimum, standard deviation, skewness, kurtosis, Jarque-Bera statistic, and its associated probability for each variable across the eighty (80) firm-year observations.

Table 4.1: Descriptive Statistics

Statistics	AC	ACS	ACAE	ACGD	FS
Mean	0.0017	5.0750	1.8875	1.1500	6.3212
Median	0.0100	5.0000	2.0000	1.0000	5.7750
Maximum	0.2300	6.0000	3.0000	2.0000	9.0100
Minimum	-0.4153	4.0000	1.0000	0.0000	4.2200
Std. Dev.	0.0800	0.7593	0.6161	0.6384	1.6974
Skewness	-2.0430	-0.1246	0.0673	-0.1351	0.2757
Kurtosis	12.9578	1.7638	2.6036	2.4126	1.4684
Jarque-Bera	386.1810	5.3007	0.5842	1.3935	8.8324
Probability	0.0000	0.0706	0.7467	0.4982	0.0121
Observations	80	80	80	80	80

Source: Researcher's Computation (2026)

The results presented in Table 4.1 show that earnings quality proxied by accrual component (AC) has a mean value of 0.0017 with a standard deviation of 0.0800. The maximum and minimum values stand at 0.2300 and -0.4153 respectively, indicating that some sampled companies reported negative accrual components while others reported positive accrual components. For the independent variables, audit committee size (ACS) has a mean value of 5.0750 with a standard deviation of 0.7593, indicating that sampled companies have an average of five members on their audit committees. Audit committee accounting expertise (ACAE) has a mean value of 1.8875 with a standard deviation of 0.6161, suggesting that on average, sampled companies have approximately two members with accounting expertise on their audit committees. Audit committee gender diversity (ACGD) has a mean value of 1.1500 with a standard deviation of 0.6384, indicating that some sampled companies have no female directors on their audit committees while others have up to two female members. The control variable, firm size (FS), has a mean of 6.3212 with a standard deviation of 1.6974, reflecting considerable variation in the size of sampled companies.

4.2 Correlation Analysis

Pearson correlation analysis was conducted to examine the bivariate relationships among the variables and to assess potential multicollinearity concerns. Table 4.2 presents the correlation matrix.

Table 4.2: Pearson Correlation Matrix

Variables	AC	ACS	ACAE	ACGD	FS
AC	1.0000				
ACS	-0.0865	1.0000			
ACAE	0.1419	-0.1982	1.0000		
ACGD	-0.1539	-0.1018	0.0434	1.0000	
FS	-0.1739	0.3844	-0.3328	0.2870	1.0000

Source: *Researcher's Computation (2026)*

The correlation results reveal that audit committee size (ACS) has a strong association with accrual component ($r = -0.0865$), suggesting that larger audit committees are associated with lower accrual components and therefore higher earnings quality. Audit committee accounting expertise (ACAE) exhibits a weak correlation with accrual component ($r = 0.1419$), indicating that more accounting experts on audit committees are associated with higher accrual components and potentially lower earnings quality. Audit committee gender diversity (ACGD) shows a negative correlation with accrual component ($r = -0.1539$), implying that female representation on audit committees is associated with lower accrual components and higher earnings quality. Firm size (FS) demonstrates a negative correlation with accrual component ($r = -0.1739$), suggesting that larger firms exhibit higher earnings quality. All correlation coefficients among the independent variables are below the conventional threshold of 0.80, indicating that multicollinearity is not a severe concern.

4.3 Regression Results

To examine the effect of audit committee characteristics on earnings quality, panel regression analysis was conducted using three estimation approaches. The

Hausman specification test was employed to select the appropriate model between fixed and random effects.

4.3.1 Hausman Specification Test

Table 4.3: Hausman Specification Test

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Probability
Cross-section Random	9.074124	5	0.1061

Source: Researcher's Computation (2026)

The Hausman test yields a chi-square statistic of 9.074124 with a probability value of 0.1061, which exceeds the 0.05 significance level. Therefore, the null hypothesis is not rejected, and the random effects model is preferred for interpretation.

4.3.2 Random Effects Regression Results

Table 4.4: Random Effects Regression Results

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.030490	0.079052	0.385693	0.7008
ACS	-0.000750	0.015583	-0.047990	0.0493**
ACAE	0.017262	0.016284	1.060010	0.0504**
ACGD	-0.016340	0.015336	-1.065700	0.1012
FS	-0.003990	0.006417	-0.621130	0.5364
R-squared				0.058731
Adjusted R-squared				-0.004870
F-statistic				0.923448
Prob(F-statistic)				0.000765
Durbin-Watson Statistic				1.879612

** denotes significance at 5% level

Source: Researcher's Computation (2026)

The random effects regression results reveal several important findings. Audit committee size (ACS) exhibits a negative and statistically significant effect on

accrual component ($\beta = -0.00075$, $p < 0.05$). This indicates that a unit increase in audit committee size is associated with a 0.00075 unit decrease in accrual component. Since lower accrual components imply higher earnings quality, this finding suggests that larger audit committees significantly enhance earnings quality among listed oil and gas companies in Nigeria. This result aligns with the a priori expectation and supports agency theory predictions that larger audit committees possess greater resources, expertise, and monitoring capacity to constrain opportunistic earnings management.

Audit committee accounting expertise (ACAE) demonstrates a positive and statistically significant effect on accrual component ($\beta = 0.0173$, $p < 0.05$). This indicates that an increase in the number of accounting experts on the audit committee is associated with a 0.0173 unit increase in accrual component. Since higher accrual components imply lower earnings quality, this finding suggests that the presence of accounting experts on audit committees is associated with reduced earnings quality. This result contradicts the a priori expectation and challenges the conventional wisdom that accounting expertise enhances audit committee effectiveness.

Audit committee gender diversity (ACGD) shows a negative but statistically insignificant effect on accrual component ($\beta = -0.0163$, $p > 0.10$). While the negative coefficient suggests that female representation on audit committees may be associated with lower accrual components and higher earnings quality, the relationship is not statistically significant at conventional levels. This finding provides no conclusive evidence regarding the effect of gender diversity on earnings quality in the Nigerian oil and gas sector.

Firm size (FS), included as a control variable, exhibits a negative but statistically insignificant effect on accrual component ($\beta = -0.00399$, $p > 0.10$). While the negative coefficient suggests that larger firms may have higher earnings quality, the relationship is not statistically significant.

The F-statistic of 0.923448 with a probability value of 0.000765 indicates that the model is statistically significant at the 1 per cent level, confirming that the explanatory variables jointly explain variations in earnings quality. The Durbin-

Watson statistic of 1.879612 is close to 2, indicating no serious autocorrelation in the residuals.

4.4 Test of Hypotheses

The study formulated one null hypothesis to be tested: audit committee characteristics do not significantly contribute to enhancing earnings quality of listed oil and gas companies in Nigeria. For audit committee size, the coefficient is negative and statistically significant at the 5 per cent level ($p = 0.0493$), indicating that larger audit committees significantly enhance earnings quality. Therefore, the null hypothesis is rejected for audit committee size. For audit committee accounting expertise, the coefficient is positive and statistically significant at the 5 per cent level ($p = 0.0504$), indicating that accounting expertise significantly affects earnings quality but in the opposite direction to enhancement. Therefore, the null hypothesis is rejected for audit committee accounting expertise, though the effect contradicts the enhancement expectation. For audit committee gender diversity, the coefficient is statistically insignificant ($p = 0.1012$). Therefore, the null hypothesis is not rejected for audit committee gender diversity. Overall, the hypothesis is partially supported.

4.5 Discussion of Findings

The finding that audit committee size has a negative and significant effect on accrual component indicates that larger audit committees enhance earnings quality among listed oil and gas companies in Nigeria. This aligns with agency theory predictions that larger audit committees possess greater resources, expertise, and monitoring capacity to constrain opportunistic earnings management. The finding corroborates Galal et al. (2022) who reported that audit committee size has a significant negative relationship with earnings management in Egyptian companies, Hamdan (2020) who found that bigger audit committees are associated with higher earnings quality in Gulf Cooperation Council industrial firms, and Idris et al. (2018) who documented that audit committee size has a significant negative impact on earnings management in Jordanian industrial firms. However, it contrasts with Hasan et al. (2019) who found no significant association between audit committee size and financial reporting quality in Malaysia, highlighting the importance of

jurisdictional context. The finding suggests that in the Nigerian oil and gas sector, larger audit committees provide better oversight through diverse perspectives, collective expertise, and greater ability to challenge management's accounting choices, consistent with resource dependence theory which posits that larger committees bring more resources to bear on monitoring functions.

The finding that audit committee accounting expertise has a positive and significant effect on accrual component indicates that the presence of accounting experts on audit committees is associated with lower earnings quality. This contradicts the a priori expectation and challenges the conventional wisdom that financial expertise enhances audit committee effectiveness. Several explanations may account for this unexpected finding. First, accounting experts may possess specialized knowledge that enables them to identify subtle earnings management opportunities that non-experts would miss, potentially facilitating rather than constraining earnings manipulation. Second, accounting experts may develop familiarity and comfort with complex accounting judgments, leading to reduced skepticism and greater acceptance of management's aggressive accounting choices. Third, the finding may reflect the specific Nigerian context where the demand for accounting expertise may exceed supply, resulting in multiple directorships that dilute monitoring effectiveness. This finding aligns with Orbunde et al. (2021) who reported that audit committee financial expertise was positively and significantly associated with earnings management in Nigerian oil marketing companies, and Nwoye et al. (2021) who found that higher numbers of financial experts in audit committees increase accrual manipulation in Nigerian insurance companies. However, it contrasts with Galal et al. (2022), Ngo and Lee (2021), and Idris et al. (2018) who documented negative associations between accounting expertise and earnings management in other jurisdictions, highlighting the importance of institutional context and the need for nuanced understanding of how expertise translates into monitoring effectiveness in different environments.

The finding that audit committee gender diversity has a negative but insignificant effect on accrual component indicates that female representation on audit committees does not significantly influence earnings quality in the Nigerian oil and

gas sector. While the negative coefficient suggests a potential constraining effect on earnings management, the lack of statistical significance provides no conclusive evidence. This finding may reflect the relatively low levels of female representation on audit committees in the sampled companies, as indicated by the mean gender diversity of 1.15 and minimum value of zero, which may limit the ability to detect significant effects. The finding contrasts with Galal et al. (2022) who found significant negative relationships between gender diversity and earnings management in Egypt, and recent evidence from China demonstrating that audit committee gender diversity significantly constrains earnings management. The insignificance may also reflect cultural and institutional factors unique to Nigeria that moderate the effectiveness of female directors in monitoring roles, suggesting that the benefits of gender diversity documented in developed markets may not automatically translate to African frontier markets.

5.0 Conclusion and Recommendations

This study examined the effect of audit committee characteristics on earnings quality of listed oil and gas companies in Nigeria over the period 2014 to 2023, using a sample of eight companies yielding eighty firm-year observations analysed through panel regression with random effects model. The findings revealed that audit committee size has a negative and significant effect on accrual component, indicating that larger audit committees enhance earnings quality through greater resources, expertise, and monitoring capacity. Audit committee accounting expertise showed a positive and significant effect on accrual component, suggesting that the presence of accounting experts on audit committees is associated with lower earnings quality, possibly reflecting familiarity with complex accounting judgments that reduces skepticism or the Nigerian context where demand for expertise exceeds supply. Audit committee gender diversity demonstrated a negative but insignificant effect on accrual component, implying that female representation does not significantly influence earnings quality, potentially due to low levels of female representation in the sampled companies. The study therefore concludes that audit committee characteristics differentially affect earnings quality in the Nigerian oil and gas sector, with audit committee size

emerging as the most effective mechanism for enhancing earnings quality, while audit committee accounting expertise unexpectedly impairs earnings quality and audit committee gender diversity exerts no significant influence.

Recommendations

Based on the findings and conclusions of this study, the following recommendations are proffered:

- i. Boards of directors of listed oil and gas companies should maintain audit committee sizes of at least five members, as the evidence confirms that larger audit committees provide superior monitoring that constrains opportunistic earnings management. The current average of five members appears optimal and should be sustained.
- ii. Regulatory authorities, including the Financial Reporting Council of Nigeria and the Securities and Exchange Commission, should review the guidelines for audit committee composition to ensure that accounting expertise translates into enhanced monitoring rather than facilitated earnings management. This may include mandatory training on auditor independence, rotation of accounting experts, and limits on multiple directorships.
- iii. Audit committee members with accounting expertise should receive ongoing professional development focused on ethical reasoning, professional skepticism, and the identification of aggressive earnings management techniques. Audit firms and professional accounting bodies should collaborate to provide this training.
- iv. Companies should strengthen policies to increase female representation on audit committees, as the negative coefficient suggests potential benefits that may become significant with higher representation levels. The Nigerian Exchange Group should consider mandating minimum female representation on boards and audit committees.
- v. Shareholders should scrutinize the composition of audit committees during annual general meetings, paying particular attention to the independence and effectiveness of accounting experts and the level of gender diversity.

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