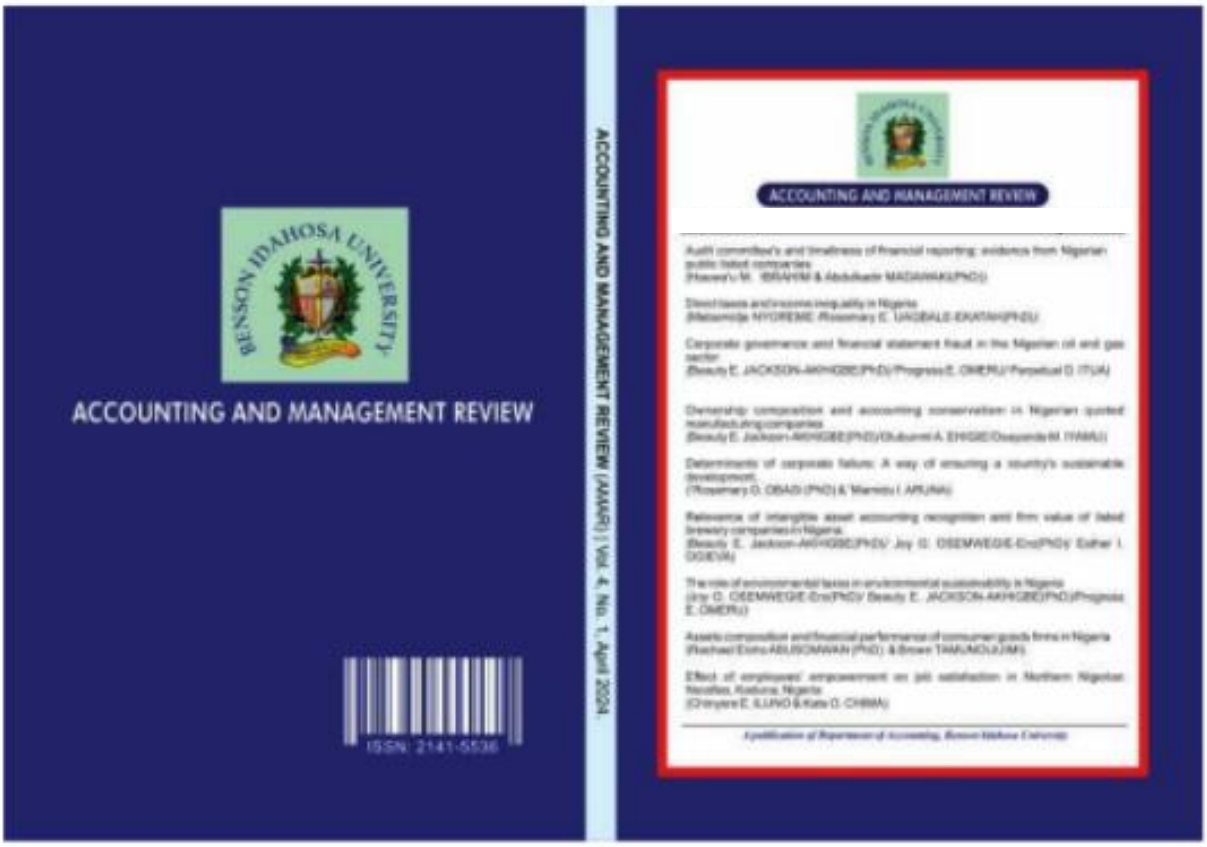
ACCOUNTING AND MANAGEMENT REVIEW

Vol. 5, No. 1, April 2025.



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INTERNAL CONTROL FUNCTION AND FINANCIAL REPORTING QUALITY OF PUBLIC HOSPITALS IN OGUN STATE, NIGERIA

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Abstract

Inadequate control activities in public hospitals have contributed to financial opacity and weakened decision-making among healthcare practitioners, underscoring the need for robust internal control systems. This study examines the effect of internal control systems on the quality of financial reporting in selected secondary and tertiary public hospitals in Ogun State, Nigeria. Internal control was assessed with control environment, risk assessment, control activities, information and communication, and monitoring. Financial reporting quality was measured using the dimensions of relevance, faithful representation, timeliness, and understandability of financial reports. Adopting a descriptive survey design, the study collected data from 213 internal auditors and accountants, selected through stratified random sampling from a population of 456 officers involved in financial reporting. A structured questionnaire, based on a five-point Likert scale, was administered both physically and electronically via Google Forms.

The results show that internal control mechanisms significantly improve the relevance of financial reports, with control activities exerting the strongest influence by enhancing reporting usefulness through authorizations, verifications, and reconciliations. Similarly, faithful representation was most influenced by a strong control environment, indicating that governance, ethical leadership, and institutional values foster credible and unbiased reporting. Timeliness was also improved across all internal control dimensions, with control activities again standing out as the most effective in ensuring prompt disclosures through operational checks and approvals. In contrast, none of the internal control components had a significant impact on the understandability of financial reports, despite exhibiting positive but weak effects, suggesting that clarity is shaped more by report presentation formats and users' financial literacy. The study recommends institutionalizing internal control frameworks to promote transparency, strengthen compliance through clear policy enforcement, and enhance staff training to improve report clarity and overall financial management.

Keywords: Control Activities, Control Environment, Financial Reporting Quality, Risk Assessment, Information and Communication

1.0 Introduction

Hospitals depend on accurate and timely financial reporting to ensure operational efficiency, stakeholder trust, and compliance with regulatory standards. Effective communication channels, as highlighted by Olayisade et al. (2023), enhance the reliability of financial reports by fostering collaboration among departments such as finance, operations, and clinical services. Continuous monitoring through internal audits and compliance reviews is critical for identifying weaknesses in control processes (Adamu, 2020). In the absence of robust monitoring, internal controls often fail, leading to financial discrepancies that undermine the integrity of financial reports. Consequently, monitoring serves as a vital mechanism for sustaining effective internal control system in secondary and tertiary healthcare institutions.

Financial reporting quality, defined as the extent to which financial reports accurately reflect an institution's financial health, is essential for enabling informed decision-making by stakeholders, including management, regulators, and investors (Pratiwi & Aufa, 2023). In healthcare institutions/organizations, high-quality financial reporting directly influences resource allocation and patient care outcomes. However, challenges such as weak internal controls, resource constraints, and regulatory pressures often hinder consistent financial reporting quality, particularly in developing countries (Eton et al., 2022). The International Accounting Standards Board (IASB) outlines qualitative characteristics, relevance, faithful representation, timeliness, comparability, and understandability as critical for meeting stakeholders' needs (IASB, 2020). While healthcare institutions in developed nations like the United States and the United Kingdom leverage these attributes to support effective decision-making, institutions in sub-Saharan Africa, including Nigeria, struggle with inadequate internal controls and resource limitations, resulting in financial misstatements and delays (Mungai, Maina, & Kungu, 2021; Eton et al., 2022). Timeliness is particularly crucial in healthcare, where delayed reporting can disrupt resource alignment and negatively impact service delivery (Wulandari & Jatmiko, 2022). Comparability across reporting periods and institutions further ensures stakeholders can assess performance trends, yet inconsistent practices often obscure financial transparency (Olayinka, 2022).

Internal control systems are fundamental to ensuring financial integrity and operational efficiency in healthcare institutions. Rooted in frameworks like the Committee of Sponsoring Organizations of the Treadway Commission (COSO), internal controls encompass five core components: control environment, risk assessment, control activities, information and communication, and monitoring (Eskin, 2020). A strong control environment, characterized by ethical leadership and clear governance, fosters reliable financial reporting (Karina et al., 2021). Effective risk assessment and control activities, such as segregation of duties and account reconciliation, mitigate financial risks and enhance reporting accuracy (Kasse, Sutisman, & Ponto, 2023).

However, public hospitals in Ogun State, Nigeria, often face challenges due to inadequate control activities, leading to financial opacity (Adamu, 2020). Robust internal controls are thus critical for

safeguarding assets, preventing fraud, and ensuring compliance with standards like the International Financial Reporting Standards (IFRS), ultimately improving financial reporting quality (Isaruk & Yacob, 2022).

Poor financial reporting quality, driven by weak internal control systems, undermines operational efficiency and transparency in healthcare institutions, eroding stakeholder trust and hindering effective decision-making (Ogbenna, 2023; Etonyeaku et al., 2022). Inadequate internal controls, ineffective risk assessment, and weak governance structures contribute to inaccuracies in financial statements, compromising accountability and regulatory compliance (Alawaqleh, 2021; Adamu, 2020). Despite frameworks like IFRS and the Financial Reporting Council of Nigeria guidelines, many hospitals struggle to produce timely, reliable, and relevant financial reports (Eton et al., 2022). Inconsistent findings in the literature further complicate the understanding of internal controls' impact on financial reporting quality. For instance, Olayisade et al. (2023) found that robust controls, including communication systems and audits, improve reporting quality, while Adamu (2020) noted persistent weaknesses in risk assessment and monitoring, leading to errors and misstatements. Similarly, Mutoharoh and Ifada (2022) observed that resource constraints and inadequate training limit control effectiveness, though Kinanu, Irungu, and Obara (2021) argued that well-designed controls can enhance accountability regardless of resources.

These inconsistencies highlight the need for further research to clarify the relationship between internal control functions and financial reporting quality, particularly in resource-constrained settings like Ogun State, Nigeria

2.0 Literature Review

2.1 Financial Reporting Quality

Financial reporting quality is central to transparency and stakeholder trust, especially in non-financial institutions such as hospitals, where accurate information supports efficiency and resource allocation. Schipper (2003) defines it as the faithful representation of economic reality, marked by completeness, neutrality, and freedom from error. In healthcare, such quality fosters collaboration across finance, operations, and clinical units, enhancing confidence among stakeholders (Olayisade et al., 2023).

The principle of prudence, emphasized by the IASB (2020), ensures cautious judgment and balanced estimates, preventing misleading optimism. This is particularly critical in hospitals where misstatements can undermine service delivery (Eton et al., 2022). Similarly, the going concern assumption underpins accrual accounting but requires transparent disclosure when uncertainties about continuity arise, a frequent challenge in resource-pressed hospitals (Karina et al., 2021). Materiality further guides disclosure by emphasizing information significant to decision-making,

ensuring reports are relevant and focused (Pratiwi & Aufa, 2023). Neutrality complements this by demanding unbiased reporting, reinforcing accountability and credibility in hospital financial statements (Isaruk & Yacob, 2022).

2.2 Internal Control System

Internal control systems are critical processes that help organizations achieve objectives in operations, financial reporting, and compliance. Graham (2020) views them as systematic approaches to managing risks, safeguarding assets, and ensuring reliable information. The COSO framework (2013) defines internal control as a process led by management and personnel to provide reasonable assurance of achieving operational, reporting, and compliance objectives. In healthcare, particularly in resource-constrained hospitals, such systems are vital for financial integrity, efficiency, and stakeholder trust.

The COSO framework consists of five components: control environment, risk assessment, control activities, information and communication, and monitoring. The control environment sets the tone through ethical leadership, governance, and accountability structures, reducing fraud risks (D'Aquila, 1998; Gupta, 2019). Risk assessment identifies and prioritizes threats, using tools such as risk matrices and adopting responses aligned with risk appetite (Linsley & Shrives, 2006; Hopkin, 2018). Control activities, including segregation of duties, audits, reconciliations, and automated checks, implement safeguards against errors and fraud (IFAC, 2020; Whittington & Pany, 2019).

Information and communication processes ensure timely, accurate, and relevant data flow to support decision-making and transparency, strengthened by technologies like ERP systems and whistleblowing channels (COSO, 2013; Ghasemaghaei et al., 2018). Monitoring provides continuous evaluation of control effectiveness, with audits and oversight mechanisms reducing discrepancies and fostering accountability (Eton et al., 2022; Adamu, 2020).

2.2 Theoretical Framework

This study is anchored on Control Theory, developed by Ashby (1956), which emphasizes the importance of feedback mechanisms in guiding systems toward stability and achieving set objectives. The theory suggests that organizations operate effectively when continuous monitoring, detection of deviations, and corrective measures are applied. In financial management, internal control systems reflect these feedback loops by overseeing transactions, detecting errors or fraud, and ensuring compliance with regulatory standards (Merchant, 1998). These mechanisms enhance the reliability of financial reporting, mitigate risks of misstatement, and strengthen accountability to stakeholders (Kaplan & Norton, 1992). Control Theory is therefore relevant to this study as it provides a framework for understanding how public hospitals in Ogun State

implement internal controls to regulate financial processes, safeguard resources, and promote transparency. Conceptualizing internal controls as feedback systems, the theory justifies their role in fostering efficiency, fraud prevention, and credible financial reporting in healthcare institutions.

2.3 Empirical Reviews

Empirical studies, such as Adamu (2024), found that ineffective internal controls in Taraba State health establishments hindered the relevance of accounting records, recommending stronger frameworks and staff training. Yao et al. (2024), using the COSO framework in Ghanaian government departments, confirmed a significant positive relationship between internal controls and financial management, emphasizing independent audits and monitoring. Similarly, Lee et al. (2024) noted that internal controls improve hospital budget management and service delivery, though gaps in staff training persist. Karina et al. (2021) also demonstrated that government accounting standards, IT adoption, and competent personnel improve reporting quality in South Jakarta hospitals.

On faithful representation, Khoiriyah et al. (2024) showed that accounting standards, internal controls, and leadership practices enhance financial reporting quality in Indonesian health centers. Tuwei and Ondabu (2024) also found that control environment, risk management, and monitoring strengthened faithful representation in Kenyan hospitals, while Mutoharoh and Ifada (2024) noted that weak staff competence may limit this effect. Monteiro et al. (2021) confirmed that high-quality internal control and accounting systems directly improve faithful representation, ensuring reliability for decision-making.

With respect to comparability and understandability, Eskin (2024) observed that weak internal control systems in Nigerian hospitals reduce comparability, while Olayisade et al. (2024) found that effective control mechanisms improve financial planning and comparability in federal hospitals. Liu et al. (2024) highlighted that strong internal audits improve accounting comparability in China by reducing agency costs. Similarly, Sudirman et al. (2021) showed that internal audits in Indonesian banks foster transparency and clarity, strengthening report understandability.

Internal controls have been linked to the timeliness of financial reporting. Al Rahhaleh et al. (2024) reported that robust controls improved both accountability and timeliness in Saudi private hospitals. Pratama et al. (2024) further noted that governance structures such as audit committees enhance timeliness in Indonesian firms. Earlier works by Soudani (2012) and Phornlaphatrachakorn (2019) corroborated that effective internal controls reduce delays, errors, and omissions, ensuring prompt and reliable disclosures.

3.0 Methodology

3.1 Research Design

This study adopts a descriptive survey research design to examine the impact of internal control functions on financial reporting quality in selected public hospitals in Ogun State, Nigeria. The design allows for systematic data collection from hospital personnel, including auditors, accountants, and financial managers, and evaluates internal controls through the COSO framework, control environment, risk assessment, control activities, information and communication, and monitoring. Financial reporting quality is assessed along four dimensions: relevance, faithful representation, timeliness, and understandability.

3.2 Population of the Study

The study population comprises personnel involved in financial reporting across seven public hospitals in Ogun State. These include internal auditors, accountants, and financial managers, representing a cross-section of tertiary and general hospitals. This ensures a comprehensive assessment of internal control practices within the state's healthcare sector.

3.3 Sampling Technique and Sample Size

A stratified random sampling technique was employed to capture the heterogeneous nature of the population across the seven hospitals. Within each stratum (hospital), respondents were selected using simple random sampling to minimize bias and ensure proportional representation. The sample size was determined using the Taro Yamane formula, which provides an appropriate estimate for finite populations.

$$n = \frac{N}{1 + N\,(e^2)}$$

Where: n = the sample size

N = the population of study = 456

e = the margin of error in the calculation = 0.05

$$n = \frac{456}{1 + 456(0.05^2)}$$

$$n = \frac{456}{1 + 1.14}$$

$$n = \frac{456}{2.14}$$

n ≈ 213

Thus, the calculated sample size is 213 staff members.

To ensure a proportional representation of staff from each hospital in the sample, the number of participants from each hospital was determined using proportional allocation. The proportion for each hospital was calculated as:

$$n_i = \frac{N_i}{N} X\, n$$

Where: n_i = sample size for each hospital; N_i = population size of each hospital; N = total population size (246); n = total sample size (213)

Table 3.1: Sample size for the study

Hospital Name	Population (N_i)	Sample Size (n_i)
Federal Medical Centre (FMC), Abeokuta	251	$\frac{251}{456} X\ 213 \approx 117$
Olabisi Onabanjo University Teaching Hospital (OOUTH), Sagamu	35	$\frac{35}{456} X\ 213 \approx 15$
Federal Neuro-Psychiatric Hospital, Aro, Abeokuta	78	$\frac{78}{456} X\ 213 \approx 36$
State General Hospital, Abeokuta	25	$\frac{25}{456} X\ 213 \approx 12$
State General Hospital, Ijebu-Ode	17	$\frac{17}{456} X\ 213 \approx 8$
State General Hospital, Ota	28	$\frac{28}{456} X\ 213 \approx 13$
State General Hospital, Ilaro	22	$\frac{22}{456} X\ 213 \approx 12$

3.4 Method of Data Collection

The study utilized a structured questionnaire on a five-point Likert scale to gather quantitative data from respondents for this study. To enhance accessibility and response rates, the questionnaire was administered both physically and electronically through Google Forms across the seven public hospitals in Ogun State.

3.5 Model Specifications

The model specification of this study follows the research's general objective to examine the relationship between internal control functions and financial reporting quality. Hence, a functional relationship is established through the model specified implicitly below:

$$\text{Financial reporting quality} = f(internal\ contril\ functions) \quad 3.1$$

Explicitly:

$$REL = f(\ CTRENV, RSKASM, CTRACT, INFCOM, MNT) \quad 3.2$$

$$FATREP = f(\ CTRENV, RSKASM, CTRACT, INFCOM, MNT) \quad 3.3$$

$$TIM = f(\ CTRENV, RSKASM, CTRACT, INFCOM, MNT) \quad 3.4$$

$$UND = f(\ CTRENV, RSKASM, CTRACT, INFCOM, MNT) \quad 3.5$$

Mathematically:

$$REL = \beta_0 + \beta_1 CTRENV + \beta_2 RSKASM + \beta_3 CTRACT + \beta_4 INFCOM + \beta_5 MNT + \varepsilon_1 \quad 3.7$$

$$FATREP = \beta_0 + \beta_1 CTRENV + \beta_2 RSKASM + \beta_3 CTRACT + \beta_4 INFCOM + \beta_5 MNT + \varepsilon_2 \quad 3.8$$

$$TIM = \beta_0 + \beta_1 CTRENV + \beta_2 RSKAM + \beta_3 CTRACT + \beta_4 IMFCOM + \beta_4 MNT + \varepsilon_3 \quad 3.9$$

$$UND = \beta_0 + \beta_1 CTRENV + \beta_2 RSKAM + \beta_3 CTRACT + \beta_4 IMFCOM + \beta_5 MNT + \varepsilon_5 \quad 3.10$$

Where: REL- Relevance; FATREP - faithful representation; TIM - timeliness; COMP- comparability; UND - understandability; CTRENV - control environment; RSKASM - risk assessment; CTRACT - control activities; INFCOM - information and communication and MNT- Monitoring

β_0 are the intercepts of the model

β_{1-5}, are the coefficients of the independent variable to be estimated

ε_{1-5} are the error terms.

3.6 Method of data analysis

The data analysis for this study involves the use of both descriptive and inferential statistics to achieve the study's objective. The inferential statistics, including multiple regression analysis, are applied to test the study hypotheses by examining the relationship between the proxies to the independent variable (control environment, risk assessment, control activities, information and communication, and monitoring) and the proxies to the dependent variable (relevance, faithful representation, timeliness, comparability, and understandability).

4.0 Data Analysis and Presentation of Results

4.1 Inferential Analysis

Table 4.1: Result of Regression Between Internal Control Functions and Relevance of the quality of financial reports of Public Hospital in Ogun State, Nigeria.

	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error			
(Constant)	2.114	0.153	–	13.822	0.000
CTRENV	0.174	0.043	0.183	4.047	0.000
RSKASM	0.142	0.045	0.139	3.156	0.002
CTRACT	0.198	0.040	0.214	4.950	0.000
IFCOM	0.126	0.045	0.122	2.804	0.005
MNT	0.158	0.050	0.153	3.160	0.002
R	R Square	Adjusted R Square	Std. Error of the Estimate		
0.569	0.512	0.406	0.5412		
F-statistics	30.821				
Sig.	.000[b]				

Dependent Variable: REL (Relevance of the quality of financial reports)

Source: Author's Computation (2025)

Table 4.1 presents the regression results assessing the effect of internal control functions on the relevance of the quality of financial reports in public hospitals in Ogun State. CTRACT has a coefficient of 0.198 (p = 0.000), indicating that a one-unit improvement in the implementation of control activities leads to a 0.198-unit increase in the relevance of financial reporting.

CTRENV has a B = 0.174 (p = 0.000), suggesting that strengthening institutional values, governance, and ethical leadership results in a 0.174-unit enhancement in financial report relevance. Similarly, MNT (B = 0.158, p = 0.002) implies that consistent internal evaluations and oversight can increase financial reporting relevance by 0.158 units. The influence of RSKAM (B = 0.142, p = 0.002) further reveals that structured identification and evaluation of financial risks contribute to a 0.142-unit rise in relevance. IFCOM (B = 0.126, p = 0.005) showed that improved communication channels and timely information flow promote a 0.126-unit gain in the usefulness of financial reports to stakeholders.

The adjusted R^2 of 0.406 indicates that internal control functions jointly explain 40.6% of the variation in the REL. The F-statistic of 30.821(p-value = 0.000) confirms that the model is significant at the 1% level. Based on these findings, the null hypothesis (H_{01}) that internal control functions have no significant effect on the relevance of financial reporting is rejected. This provides empirical support for the assertion that strong internal control mechanisms significantly enhance the informational relevance of financial reports in public sector hospitals.

Table 4.2: Result of Regression Between Internal Control Functions the Faithful representation of financial reports of Public Hospital in Ogun State.

	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error			
(Constant)	2.087	0.167	–	12.495	0.000
CTRENV	0.193	0.046	0.201	4.196	0.000
RSKASM	0.158	0.048	0.162	3.292	0.001
CTRACT	0.185	0.042	0.206	4.405	0.000
IFCOM	0.143	0.049	0.138	2.918	0.004
MNT	0.171	0.051	0.164	3.353	0.001
R	R Square	Adjusted R Square	Std. Error of the Estimate		
0.452	0.422	0.326	0.542		
F-statistics	45.243				
Sig.	.000[b]				

Dependent Variable: FATREP (faithful representation of financial reports)

Source: Author's Computation (2025)

Table 4.2 presents the regression results assessing the effect of internal control functions on the faithful representation of financial reports in public hospitals in Ogun State. CTRACT has a coefficient of 0.185 (p = 0.000), showing that a one-unit improvement in control activities leads to a 0.185-unit increase in faithful representation. CTRENV (B = 0.193, p = 0.000) indicates that strengthening governance, ethics, and institutional values improves faithful reporting by 0.193 units. MNT (B = 0.171, p = 0.001) reveals that consistent oversight contributes a 0.171-unit gain in reporting integrity. RSKASM (B = 0.158, p = 0.001) shows that stronger risk identification and evaluation increase faithful representation by 0.158 units, while IFCOM (B = 0.143, p = 0.004) demonstrates that effective communication improves reliability and neutrality by 0.143 units.

The adjusted R^2 of 0.326 indicates that internal control components jointly explain 32.6% of the variation in faithful representation. The F-statistic of 45.243 (p-value = 0.000) confirms that the model is significant at the 1% level. Based on these findings, the null hypothesis (H_{02}) that internal control functions have no significant effect on faithful representation is rejected. The results affirm that robust internal controls are essential for ensuring credible and unbiased financial reporting in public hospitals.

Table 4.3: Result of Regression Between Internal Control Functions and the Timelines representation of financial reports of the Public Hospital in Ogun State.

	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error			
(Constant)	1.984	0.172	–	11.535	0.000
CTRENV	0.165	0.048	0.174	3.438	0.001
RSKASM	0.147	0.044	0.154	3.341	0.001
CTRACT	0.172	0.040	0.193	4.300	0.000
IFCOM	0.132	0.046	0.128	2.870	0.005
MNT	0.144	0.049	0.138	2.939	0.004
R	R Square	Adjusted R Square	Std. Error of the Estimate		
0.483	0.433	0.346	0.642		
F-statistics	37.11				
Sig.	.000[b]				

Dependent Variable: TIM (Timeliness of financial reports)

Source: Author's Computation (2025)

The regression results in Table 4.3 reveal that the coefficient of the CTREV is 0.165 (p = 0.001), indicating that a one-unit increase in the CTREV leads to a 0.165-unit improvement in the timeliness of financial reports. RSKSM has a coefficient of 0.147 (p = 0.001), implying that proactive identification and evaluation of financial risks enhance the punctuality of reporting. CTRACT exert a coefficient of 0.172 (p = 0.000), showing that implementing robust checks, approvals, and security measures significantly improves timely disclosures.

IFCOM contributes positively with a coefficient of 0.132 (p = 0.005), meaning that effective dissemination and accessibility of financial data support timeliness in reporting. MNT also has a positive coefficient of 0.144 (p = 0.004), demonstrating that continuous review and evaluation mechanisms ensure deadlines are consistently met.

The F-statistic (37.116, p = 0.000) confirms the overall significance of the regression model. Hence, the null hypothesis (H_{03}), which states that internal control functions have not significantly affected the timeliness of financial reports, is rejected, affirming that effective internal control practices are crucial for ensuring timely financial disclosures in public hospitals.

Table 4.4: Result of Regression Between Internal Control Functions and the Understandability of Financial Reports of the Public Hospital in Ogun State.

	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error			
(Constant)	2.045	0.198	–	10.333	0.000
CTRENV	0.073	0.055	0.081	1.327	0.186
RSKASM	0.068	0.050	0.077	1.362	0.175
CTRACT	0.082	0.049	0.093	1.673	0.096
IFCOM	0.058	0.053	0.065	1.094	0.275
MNT	0.066	0.051	0.071	1.294	0.198
R	R Square	Adjusted R Square	Std. Error of the Estimate		
0.213	0.045	0.011	0.78		
F-statistics	1.318				
Sig.	.0258[b]				

Dependent Variable: UND (Understandability of financial reports)

Source: Author's Computation (2025)

The regression analysis in Table 4.4 shows that the coefficient CTRENV is 0.073 (p = 0.186), indicating that a unit improvement in the control environment would increase the understandability of financial reports by 0.073 units insignificantly. Similarly, RSKASM has a coefficient of 0.068 (p = 0.175), suggesting that strengthening risk identification and evaluation processes would improve understandability by 0.068 units insignificantly.

CTRACT shows a coefficient of 0.082 (p = 0.096), implying that enhanced procedures and compliance checks could raise understandability by 0.082 units; however, this effect remains statistically insignificant. IFCOM has a coefficient of 0.058 (p = 0.275), indicating that improvements in the clarity and dissemination of financial information would increase understandability by 0.058 units insignificantly. MNT, with a coefficient of 0.066 (p = 0.198), also showed that strengthened monitoring activities may raise understandability by 0.066 units insignificant.

F-statistic value of 1.318 with a p-value of 0.258 confirms that the model as a whole is not statistically significant. These findings indicate that internal control functions, taken together, do not exert a significant effect on the understandability of financial reports in public hospitals in Ogun State. Consequently, the null hypothesis (H_{04}), which states that internal control functions have no significant effect on understandability, is accepted.

4.2 Discussion of Findings

The findings from this study showed that internal control functions significantly enhance relevance, with CTRACT (B = 0.198, p = 0.000) and CTRENV (B = 0.174, p = 0.000) having the strongest effects. MNT (B = 0.158, p = 0.002), RSKASM (B = 0.142, p = 0.002), and IFCOM (B = 0.126, p = 0.005) also contribute positively, consistent with findings by Yao et al. (2024), Karina et al. (2021), Festus et al. (2023), and Kasse et al. (2023). These results suggest that robust controls enable actionable and relevant financial reporting.

For faithful representation, CTRENV (B = 0.193, p = 0.000) and CTRACT (B = 0.185, p = 0.000) are most influential, while MNT (B = 0.171, p = 0.001), RSKASM (B = 0.158, p = 0.001), and IFCOM (B = 0.143, p = 0.004) also enhance accuracy and neutrality, aligning with studies in

Indonesia (Khoiriyah et al., 2024) and Kenya (Tuwei & Ondabu, 2024). This confirms that internal controls foster credible reporting essential for stakeholder trust. Timeliness is similarly improved by all internal control functions, with CTRACT (B = 0.172, p = 0.000) and CTRENV (B = 0.165, p = 0.001) as key drivers, followed by RSKASM (B = 0.147, p = 0.001), MNT (B = 0.144, p = 0.004), and IFCOM (B = 0.132, p = 0.005). These findings support the study of Phornlaphatrachakorn (2019), Al Rahhaleh et al. (2024), and Pratama et al. (2024) research linking strong controls to timely reporting and effective operational decision-making In contrast, internal control functions show positive but insignificant effects on understandability (CTRENV B = 0.073, RSKASM B = 0.068, CTRACT B = 0.082, IFCOM B = 0.058, MNT B = 0.066), consistent with Eskin (2024) and Ozmeral et al. (2024), highlighting that additional strategies, such as simplified report formats or standardized frameworks, may be required to enhance clarity for stakeholders.

5. Conclusions and Recommendations

This study investigated the effect of internal control system on the quality of financial reporting in public hospitals across Ogun State. The findings reveal that all five components of internal control system (control environment, risk assessment, control activities, information and communication, and monitoring) exert positive and statistically significant effects on three key dimensions of financial reporting quality: relevance, faithful representation, and timeliness. Specifically, control activities had the strongest effect on relevance, while the control environment exerted the greatest influence on faithful representation. Timeliness was also significantly improved by all internal control dimensions, with control activities again emerging as the most influential factor.
In contrast, none of the internal control system proxies had a significant effect on the understandability of financial reports. The study concludes that a robust internal control system significantly enhances the reliability, relevance, and timeliness of financial reports in public hospitals, supporting decision-making and accountability.

Based on the findings of this study, the following recommendations were advanced to strengthen financial reporting practices in public hospitals through internal control functions. First, hospital administrators must institutionalize robust internal control frameworks to promote accountability and ensure transparency in financial management. Ethical leadership must be emphasized, with hospital executives fostering a culture of compliance with relevant laws, regulations, standards, and policies through clear and effective enforcement and exemplary conduct.
Furthermore, public hospitals should develop and implement structured risk management systems that enable early identification and mitigation of financial risks, thus safeguarding operational stability. Investment in digital financial infrastructure is also essential to streamline data processing, enhance communication efficiency, and support timely and accessible reporting.
In parallel, internal monitoring mechanisms such as routine audits, compliance checks, and regular performance evaluations should be reinforced to maintain the integrity of financial practices. Efforts should also be made to simplify the presentation of financial reports, using clear formats and explanatory notes to improve their understandability, particularly for non-financial stakeholders. Capacity building through targeted training programs for financial personnel should be prioritized to enhance technical competence and ensure consistent adherence to reporting standards.

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Audit Committee Mechanism and Audit Quality of Quoted Insurance Firms in Nigeria.

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Abstract

Audit quality is a critical concern in the insurance sector, impacting financial transparency and stakeholder trust. The persistent issue of audit committee effectiveness in ensuring reliable financial reporting has raised questions about their mechanisms. This study examined the relationship between audit committee mechanisms and audit quality of the sampled insurance firms in Nigeria for the period of 2014 to 2022. The study employed the Panel data analysis (Fixed Effect and Random Effect methods). Based on the Hausman test and decision rules, the random effect regression result was adopted. Generally, the regression result revealed that two out of the four audit committee mechanism variables (ACGR and ACIND) met the *a-priori* sign and as such it was found to be positively related to AQ, while the other two, ACD and ACSZ did not meet the expected signs. It rather showed an inverse relationship between them and AQ. It was however not statistically significant, a situation that could be attributed to gender imbalance, possibility of some level of audit dependence as seen from the dataset, emphasis on audit size and not expertise, diverse efficiency and effective decision making. This thereby shows that insurance firms' internal factors tend to promote audit quality than the audit committee attribute. The lag dependent variable which is AQ (-1) was found to be positive and statistically significant in promoting audit quality. The study thereby recommended among others that insurance companies should emphasize and increase their drive for gender balance or diversity, embrace more of or higher level of independence as this will reduce undue interference from the board and further help to boost the decisions, depth and quality of the audit committees.

Keywords: Audit Committee Mechanism, Audit Quality, Insurance Firms, Gender Diversity, Financial Reporting

1.0 Introduction

The significance of audit quality extends to various stakeholders such as insurance companies, institutional investors, capital providers, employees, government, and researchers, all of whom rely on accounting information for decision-making (Ahmed, Maysam, & Naim, 2018). Financial statements serve the purpose of providing comprehensive information regarding an enterprise's financial position, performance, and changes in financial position, aiding a diverse array of users

in making informed economic decisions. This study is motivated by the necessity to ensure the reliability and credibility of financial information through external audits, aimed at bolstering confidence among investors and stakeholders (Financial Reporting Council, 2022).

Legislation, such as section 359 (3/4) of the Companies and Allied Matters Act (CAMA), 2020 as amended, mandates the establishment of audit committees for listed companies on the Nigeria Exchange Group (NGX), underscoring their role in enhancing the quality of accounting information (Enofe, Aronnwam, & Abadua, 2013). Consequently, regulatory reforms have been instituted across various jurisdictions to strengthen managerial oversight, emphasizing the importance of robust board and audit committee structures (Hassan, 2015). Research suggests that factors such as audit committee size play a pivotal role in improving audit quality, potentially reducing the likelihood of receiving modified audit opinions (Alkilani, Wan Hussin, & Salim, 2019).

The presence of an effective audit mechanism is crucial for ensuring the reliability, comparability, and credibility of financial statements for quoted companies, thereby bolstering market confidence and audit quality (Monametsi & Agasha, 2020). Moreover, insurance serves as a risk management tool for governments, corporate entities, small businesses, and individuals, facilitating economic stability through effective risk transfer mechanisms (Akpan et al., 2020).

In this context, audit committee characteristics, including gender diversity, diligence, size, and independence, are pivotal factors influencing firm reporting quality and oversight effectiveness. Gender diversity within audit committees can contribute to better decision-making processes, while diligence reflects the efficiency of audit committee activities. Additionally, the size and independence of audit committees are instrumental in fulfilling their oversight responsibilities and ensuring the integrity of the audit reporting process.

The audit committee plays a critical role in overseeing the financial reporting process within a company, ensuring the timely disclosure of financial statements to users of accounting information. In the Nigerian insurance service sector, operational challenges stemming from intense competition, regulatory requirements, evolving customer preferences, fraudulent financial practices, and stakeholder expectations have created a turbulent environment (Syder & Miebaka, 2022). According to the Nigeria Securities and Exchange Commission, companies are mandated to release audited financial statements for public consumption within ninety (90) days (Alabi, Sanni & Abdulrasaq, 2022). When auditors require additional time to complete their tasks, it may signal underlying issues with the accuracy of the financial position as presented by management (Zendrato & Hutabarat, 2020). Members of the audit committee (AC) are expected to possess financial acumen to effectively contribute to discussions concerning the financial health of the firm. Their lack of financial expertise renders the committee ineffective in advising the board on financial matters. The AC is tasked with supervising a firm's financial reporting and audit processes to ensure the timely release of financial statements (Afenya et al., 2022).

Previous studies have demonstrated that gender diversity on the board positively influences audit quality (AQ) and board effectiveness (Eguavoen, Ugbogbo & Kadiri, 2022; Kabiru & Usman, 2021; Olowookere, Oyewole, & Lamidi, 2021; Oziegbe & Ogbodo, 2021; Umoh-Daniel & Urhoghide, 2018; Urhoghide & Omolaye, 2017). Kabiru and Usman (2021) found that AC gender diversity and diligence significantly enhance AQ in deposit money banks (DMBs) in Nigeria. Olowookere et al. (2021) observed a positive relationship between AC gender diversity and financial reporting quality (FRQ) in quoted consumer goods companies on the NGX.

However, studies on AC gender diversity and AQ in the Nigerian insurance sector are scarce, representing a notable research gap. Similarly, research on AC mechanisms and AQ within the insurance industry in Nigeria is limited. This study seeks to address these gaps by examining the relationship between AC gender diversity and AQ within the Nigerian insurance sector, thereby contributing to the existing body of knowledge in this field. Therefore, this paper investigates effect of the audit committee and audit quality by examining effect of audit committee gender diversity and diligence on audit quality among quoted insurance companies in Nigeria.

2.0 Literature Review

2.1 Audit Quality

Various authors have offered different conceptual frameworks to define audit quality. DeAngelo (1981) characterizes audit quality as the market's expectation that an auditor can detect and highlight material breaches (misstatements) within financial statements, subsequently reporting them to the relevant authorities. This definition emphasizes two key aspects: the auditor's detection capability and their intention to report any identified issues. However, it is important to note that this definition is more of an assumption regarding the auditor's role and performance, rather than a factual representation. Clients also expect auditors to fulfill their professional obligations without compromising audit quality (Fontaine & Pilote, 2012; Francis, 2011), although these expectations may not always align with the realities of audit engagements. The reporting process is another crucial element of audit quality definitions. While it is assumed that auditors will report their findings to the relevant authorities, these definitions often do not specify the completeness or accuracy of such reporting. Auditors must maintain independence and impartiality while reporting, even if some audit assertions remain unsatisfied or procedures incomplete (Gul, 1989).

In the literature, various proxies are used to measure audit quality, including output-based measures (e.g., discretionary accruals), input-based measures (e.g., audit fees), and others (DeFond & Zhang, 2022). However, the descriptive accuracy and construct validity of these proxies remain uncertain. In this study, audit quality is measured as the ratio of total accruals to assets (Kothari, Leone & Wasley, 2005; Koh, Rajgopal & Srinivasan, 2013).

2.2 Audit Committee Mechanism

The Audit Committee Mechanism, as mandated by The Sarbanes-Oxley Act (SOX, 2002), is a crucial component of corporate governance, tasked with overseeing a company's accounting and financial reporting processes, as well as audits of financial statements. The roles of the audit committee, as outlined by SOX, encompass reviewing financial statements, evaluating the effectiveness of internal control systems, making recommendations on auditor findings, and appointing external auditors (SOX, 2002). In practice, the primary responsibility of the audit committee is to ensure the relevance and consistency of accounting policies adopted for consolidated financial statements, along with verifying internal procedures for information collection and monitoring (Chen & Zhou, 2007). Additionally, the audit committee serves as a bridge between corporate management and statutory auditors, reducing conflicts of interest and agency costs (Chen & Zhou, 2007). Attributes such as committee size, independence, expertise, and meeting frequency have been identified as crucial for the effectiveness of the audit committee in fulfilling its monitoring and control responsibilities (De Zoort et al., 2002). Corporate governance literature emphasizes the need for independent and financially literate audit committee members to positively impact firm financial health (Abbott, Parker, & Peters, 2004). The composition and character of the audit committee significantly influence organizational performance and financial reporting credibility (Cadbury, 1995; Qeshtaa, & Ali, 2020). It is imperative for audit committee members to possess backgrounds in finance and accounting to

effectively interpret financial statements and detect inconsistencies that may pose audit risks (Weber, 2020; Qeshtaa, & Ali, 2020). The emergence of the audit committee helps mitigate conflicts of interest between corporate managers and shareholders by ensuring accuracy, transparency, and consistency in financial reporting (Koutoupis, & Bekiaris, 2019). Moreover, the effectiveness and size of the audit committee can significantly impact firm performance, particularly in sectors such as the Bahrain insurance industry (Abdeljawad, Oweidat, & Saleh, 2020; Al Farooque, Buachoom, & Sun, 2019; Qeshtaa & Ali, 2020).

2.2.1 Audit Committee Gender Diversity

The presence of female board members has been associated with improved decision-making processes that influence firm reporting quality, offering diverse perspectives and demanding different information compared to their male counterparts (Alqatamin, Ali & Arun, 2017). Gender diversity within the audit committee (AC) composition has gained favorable recognition in Nigeria, aligning with global movements to increase women's representation on corporate boards (Adebayo, Olagunju & Ibrahim, 2022). The concept of AC gender diversity is defined as the equitable representation of both men and women within the board of a corporate organization. Theoretical literature, particularly from the agency theory perspective, underscores the importance of diversified boards in ensuring balanced decision-making processes within the AC (Fauzi & Locke, 2012). Gender differences manifest in various aspects of organizational dynamics, influencing roles, relationships, and identities. The presence of women within the AC not only provides additional resources but also offers fair representation for diverse stakeholders, enhancing the stakeholder perspective (Chancharat & Chancharat, 2019).

The role of the AC extends to overseeing the financial reporting process, ensuring the timely disclosure of financial statements to users of accounting information (Dogan, Coskun & Celik, 2007). AC gender diversity is crucial in enhancing the transparency and integrity of financial reporting, thereby contributing to improved audit quality (Gavious, Segev & Yosef, 2012). Research indicates that the presence of female directors on the board and AC is associated with reduced earnings management and higher quality reported earnings (Srinidhi, Gul & Tsui, 2011). The significance of AC gender diversity in financial reporting quality has garnered attention in accounting research, providing valuable information for shareholders and policymakers in investment decision-making processes (Aldamen, Hollindale, & Ziegelmayer, 2016). Studies examining the influence of female AC members on financial reporting quality have shown positive but insignificant relationships, as measured by proxies such as audit fees (Aldamen, Hollindale, & Ziegelmayer, 2016).

Flowing from the foregoing, we hypothesize that:

Audit committee gender diversity has no significant effect on audit quality. ($H0_1$).

2.2.2 Audit Committee Diligence

Audit committee diligence, as defined by Alabi et al. (2022), reflects the frequency of meetings held by the audit committee (AC) and its members' commitment to fulfilling their responsibilities within the corporate organization. It serves as a crucial aspect of effective corporate governance, enhancing oversight and decision-making processes (Vafeas, 1999). The frequency of AC meetings is indicative of its effectiveness, with guidelines such as those from the Central Bank of Nigeria recommending a minimum of three meetings annually (Central Bank of Nigeria, 2003). Zhou and Chen (2004) highlight the role of AC meetings in improving corporate governance, potentially reducing financial fraud when diligently conducted (Stewart & Munro, 2007). Additionally, Salawu et al. (2017) suggest that frequent AC meetings keep members informed about business challenges, enabling proactive discharge of responsibilities.

Audit committee diligence is often measured by the number of meetings held per year, indicating the effort and engagement of committee members (Raghunandan & Rama, 2007). A more active AC is expected to provide effective monitoring, as discussed by Bajuri and Damagum (2023), thereby contributing to the organization's overall goals. The significance of AC diligence is underscored by regulatory requirements such as the Sarbanes-Oxley Act, 2002, emphasizing the importance of a systematic forum for external auditors to address critical issues (Sarbanes-Oxley Act, 2002). Studies examining the relationship between audit committee characteristics and audit quality reveal mixed results. While Ghafran and O'Sullivan (2017) found a positive impact of meeting frequency on audit quality, Mwangi (2018) observed a positive effect of frequent AC meetings on the quality of financial reporting in public secondary schools. DeFond and Zhang (2014) recommend incorporating a variety of proxies to measure audit quality comprehensively, acknowledging the positive influence of AC characteristics on audit quality.

Ungwanunu (2022) did a study in Nigeria on the effect of the AC characteristics on FRQ of listed DMBs. The aim of the study was to examine the effect of AC independence, AC diversity, AC financial expertise, AC meeting and AC size on FRQ. The study made use of secondary data collected from listed DMBs for the period of 2010 to 2021 while descriptive statistics, correlation analysis and multiple panel regression technique employed in the analysis of data. The results revealed that AC diversity, AC expertise, AC meetings and AC size had insignificant effect on FRQ while AC independence had a significant effect on FRQ.

Orife, Orjinta and Ofor (2022) used ex-post facto and longitudinal research design to sample 10 oil and gas firms for the period of 2011 to 2020 to examine the effect of AC characteristics on FRQ. The aim of the study is to examine the AC size, AC business, AC gender diversity and AC independence. The data were analyzed using descriptive analysis, correlation analysis and variance inflation factor and panel multiple regression technique. The results showed AC gender diversity, AC busyness and had no significant negative effect on FRQ while AC size had no significant and positive effect on FRQ.

Afenya et al (2022) examined the influence of audit characteristics on audit reporting lag in Ghana publicly quoted companies. Though the study amongst other findings stated that a negative relationship exists between audit committee frequency of meeting and audit reporting time lag, concluded that audit committee characteristics promote efficiency in the timely reporting of financial statements.

Ogbaisi and Ezuem (2021) employed *ex-post facto* research design to sample 42 quoted firms in Nigeria Exchange Group for the period of 2016 to 2020 to investigate the relationship between audit committee characteristics and financial reporting quality (FRQ) in Nigeria. The study aim is to investigate the effect of AC meetings proxied by AC diligence, board size and board independence on FRQ. The multiple ordinary least square results showed that AC diligence and board independence exert a significant positive relationship with FRQ while board size exerts insignificant positive relationship with FRQ.

In the same vein, Madugba, *et al.* (2021) used a descriptive research design to assess the effect of AC quality on AQ of deposit money banks in Nigeria. The aim of the study is to assess the effect of AC diligence, AC size and AC expertise on AQ. They made use of descriptive statistics, normality test, multicollinearity test and regression analysis to verify the formulated hypotheses. The results revealed that AC diligence had a significant positive effect on AQ while AC size and AC expertise had insignificant effect on AQ.

Raweh, Abdullah, Kamardin and Malek (2021) conducted a study on the relationship between AC financial expertise and audit report timeliness in Jordan. The study sampled 119 companies

for the period of 2013 to 2017 and analyzed using descriptive statistics, correlation matrix and panel regression analysis. They found out that AC financial expertise and audit report timeliness negatively and insignificantly related.

2.3 Theoretical Underpinning

The examination of the relationship between agents (management) and owners (shareholders) of a corporation is frequently conducted through the lens of agency theory. It provides an analysis of possible conflicts of interest that may arise between the two parties, along with the tactics utilized to harmonize their interests. The theory implies entrusting resources to the auditors (agents) and in turn these agents must usually produce a quality report taking regarding the skeptical use of resources both in quantitative and qualitative manner. In the market for professional services, high quality services involving the disclosure of critical audit matters are normally associated with higher costs. Generally, the increased audit costs may be due to the amount of effort that has been devoted to the audit procedure (more audit hours) or greater audit experience (higher price per hour). Often assumed is that large audit firms provide a higher level of quality audits than smaller audit firms. The theory is relevant to the study because it helps to resolve the conflicts that arise as a result of the separation of ownership and control for the aim of improving AQ. There is considerable information asymmetry between the agent and the principal. Auditors serve to reduce agency costs by reducing this information asymmetry.

3.0 Methodology

The study employed *ex post facto* research design. A total of thirty-five (35) quoted insurance companies in the Nigerian Exchange Group (NGX, 2022) from 2014–2022 were used as the population and sample size, employing the census sampling technique. The use of a census sample technique was determined by a number of characteristics that improve the study's thoroughness, applicability, and viability. A significant opportunity for gathering pertinent financial data and identifying probable trends or patterns in audit committee mechanism exists from 2014 to 2022. This period of time spans numerous economic cycles and enables a thorough examination of potential changes in fraudulent activity over the years.

The study employed the panel least squares for data analysis as it uses the same assumptions as other least square methods. This method is used to avoid multicollinearity and maximize forecast accuracy. Panel least squares allow more data utilization than conventional least squares. The study adopted a multiple regression model to explain change or variation in the value of the dependent variable on the basis of changes in the independent or explanatory variables. The model employed for this study was adopted from multiple Regression Model of Hussaini and Benjamin (2015) where the dependent variable (QFR) while ACS, ACID, ACD, ACGD were the audit committee variables to test their hypotheses. The linearly/econometrically form of the model for this study is expressed below:

$QFR= \beta_0 + \beta_1 ACS + \beta_2 ACID + \beta_3 ACD + \beta_4 ACGD + e_t$……..……... (3.1)

Where:

QFR = Quality of Financial reporting
ACS = Audit committee size
ACID= Audit committee independence
ACD = Audit committee diligence
ACGR = Audit committee gender

The regressions model of Hussaini and Benjamin (2015) was re-specified and extended by including other variables and use of discretionary accruals as a measure of audit quality measure in this research as represented in econometric form below:

$AQ1_{it} = \beta_0 + \beta_1 ACGR_{it} + \beta_2 ACD_{it} + \beta_3 ACSZ_{it} + \epsilon_{it}$----------(3.2)

Where:

AQ = Audit quality

ACGR=Audit committee gender diversity

ACD = Audit committee diligence

ACS =Audit committee size

β_0 = Constant

e_{it}= Error term

Panel Co integration

$$\text{FSF}_{it} = \boldsymbol{a_1} + \boldsymbol{a_2} \sum_{t-1}^{n} \boldsymbol{\Delta}\text{FSF}_{it-1} + \boldsymbol{a_3} \sum_{t-1}^{n} \boldsymbol{\Delta}\text{BEF}_{it-1} + \boldsymbol{a_4} \sum_{t-1}^{n} \boldsymbol{\Delta}\text{BAC}_{it-1} + \boldsymbol{a_5} \sum_{t-1}^{n} \boldsymbol{\Delta}\text{BAC}_{it-1} + \boldsymbol{a_6} \sum_{t-1}^{n} \boldsymbol{\Delta}\text{FSIZE}_{it-1} + \varepsilon --- (ii)$$

Operationalisation of Variables

Table 1. Definition and measurement of variables

S/N	Variables	Definition	Type	Measurement	Source	Apriori sign
1.	AQ	Audit quality	Dependent Variable	It was measured by calculating signed and the absolute value of performance-matched discretionary accruals, that is: Total Accruals/Assets	Kothari, Leone & Wasley, (2005) and Koh, Rajgopal, & Srinivasan (2013).	Nil
2	ACGR	Audit committee gender diversity	Independent Variable	It was measured by of female as a ratio of the total AC members.	Berger, Kick &Schaeck (2012), Ungwanunu(2022).	+
3	ACD	Audit committee diligence	Independent Variable	It was measured by the frequency (number) of AC meeting in the financial year.	Akhor&Oseghale (2017), Sijabat&Renata (2021);Alabi, *et al.* (2022).	+
4	ACSZ	Audit committee size	Independent Variable	It was measured by the ratio of total number of people on the AC to total board size	Ilaboya&Iyafekhe (2014), Abdel-Hafeez & Salah (2022)	+

Source: Researchers' compilation (2024)

4. Results and Discussion of Findings

Descriptive Statistics

Table 2. Descriptive Statistics

	AQ	ACGR	ACD	ACSZ
Mean	0.408973	17.10921	4.134831	5.466292
Median	0.245859	16.67000	4.000000	6.000000
Maximum	3.137198	80.00000	8.000000	8.000000
Minimum	0.036585	0.000000	0.000000	4.000000
Std. Dev.	0.454444	16.24854	0.859523	0.927599
Skewness	2.731665	0.875569	-0.208154	-0.327188
Kurtosis	12.63873	3.638538	7.747615	2.470108
Jarque-Bera	910.4192	25.76711	168.4559	5.258377
Probability	0.000000	0.000003	0.000000	0.072137
Sum	72.79725	3045.440	736.0000	973.0000
SumSq. dev.	36.55397	46730.67	130.7640	152.2978
Observations	178	178	178	178

Source: Authors compilation (2024) extracted from E-views 10 output.

Table 2 outlines the characteristics of variables observed in the selected insurance companies that constitute the sample for this study. The average audit quality stands at 41% indicating that insurance firms in Nigeria with total accruals exceeding 304% are considered to exhibit high audit quality (Wu & Abeysekera, 2023). Regarding audit committee gender diversity, assessed by the proportion of female committee members to the total audit committee members among the sampled Nigerian insurance firms showed an average value of 17.10921 indicating that Nigerian listed insurance firms with a ratio of female audit committee members exceeding 17.1 are deemed to possess high audit committee diversity or gender balance. Audit committee diligence, as indicated by the frequency of audit committee meetings in the financial year, has an average value of 4.135 indicating insurance firms holding more than 4.1 meetings per year are regarded as highly diligent in their audit duties, whereas those meeting less frequently are considered less diligent. In terms of audit committee size, calculated by the ratio of the total number of members on the audit committee to the total board size, the mean value is 5.4662 indicating that insurance firms with a ratio of audit committee size exceeding 5.4662 are classified as having oversized audit committee boards, while those below this threshold are categorized as possessing undersized audit committee boards.

Table 3 Correlation Matrix

	AQ	ACGR	ACD	ACSZ
AQ1	1.000000			
ACGR	0.022186			
ACD	-0.018673	-0.073674	1.000000	
ACSZ	-0.280477	-0.167468	0.062422	1.000000

Source: Authors compilation (2024) as extracted from E-views 10 output.

The correlation coefficient results as presented in Table 3 showed that all the variables except for audit committee gender diversity has weak and negative correlation with the audit quality as measured by the ratio of total accruals to total assets. Going by the values of -0.0186, -0.2804, and -0.3878 respectively for ACD, ACSZ, and ROA (Madugba et al., 2021). Whereas, the result showed that ACGR had weak and positive correlation with the audit quality of the sampled insurance firms. Judging from the correlation results between the independent variables as presented suffice to say that there is no present of multicollinearity since none of the independent variable had a correlation coefficient of about 0.90 and above.

Table 4: Panel Regression Results with Audit Quality as Dependent Variable

Variables	**FIXED EFFECT MODEL**	**RANDOM EFFECT MODEL**
	0.205090	0.209899
C	(0.3300)	(0.2103)
	0.000314	0.000621
ACGR	(0.8556)	(0.5940)
	-0.021009	-0.008782
ACD	(0.4565)	(0.7019)
	-0.002633	-0.020522
ACSZ	(0.9286)	(0.3475)
	-0.007597*	-0.0093358*
ROA	(0.0112)	(0.0002)
	0.641848*	0.745716*
AQ(-1)	(0.0000)	(0.0000)
R-squared	0.799377	0.770126
Adjusted R-squared	0.757710	0.757784
Durbin-Watson stat	2.044771	2.034477
F-statistic/Prob.	19.18 (0.0000)	62.39(0.0000)
(B-P LM) test:	221.7136(0.0573)	
Hausman Test:		9.956425 (0.2681)

Source: Authors compilation (2023) extracted from E-views 10 output.

Results of the regression analysis indicated that audit committee gender diversity (ACGR) was found to have a positive yet insignificant relationship with audit quality suggesting that, when other variables are held constant, a more diversified audit committee may lead to improved audit report quality (Ungwanunu 2022). However, the lack of significance in the relationship may be attributed to factors such as gender imbalance or a lack of emphasis on other qualitative aspects of audit committee composition, such as effective auditing skills and strategic decision-making. The non-significance of the AC gender diversity variable was found to corroborate the results of (Orife *et al.* 2022; Ungwanunu 2022). However, this study is in contrast with some previous studies' findings (Hussaini & Benjamin 2015; Olabode&Wasiu 2021; Olowookere, *et al.,* 2021) who find AC gender to be positive and statistically significant in driving audit quality or quality financial reporting from auditors.

Similarly, the analysis revealed that audit committee diligence (ACD), measured by meeting frequency, had a negative and statistically insignificant impact on audit quality. This suggests that, all else being equal, more frequent meetings may result in lower audit quality, possibly due to distractions or a lack of focus on core audit tasks. The insignificance of ACD in driving audit quality aligns with some previous studies but contradicts others. The insignificance of the ACD variable was found to corroborate the results of (Alkilani, *et al*. 2019; Masmoudi, 2021; Ofor,*et al.,* 2022) but it negates some previous studies' findings as follows: (Adamu, 2021; Hussaini & Benjamin 2015; Kabiru & Usman 2021; Madugba, *et al.,* 2021). The implication for the non-significant effect of ACD on audit quality might be attributed to overemphasis on the frequent meetings and attendance to meetings with little or no emphasis on quality, depth and strategic decision making during the meetings. ACD was also found to be insignificant in driving audit quality.

Furthermore, audit committee size (ACSZ) was found to have an inverse and insignificant relationship with audit quality. This indicates that larger audit committees may be associated with lower audit quality, potentially due to an excessive number of committee members. The lack of significance in the relationship suggests that the focus should shift from numerical attributes to qualitative attributes for achieving quality audit reports. The insignificance of the ACSZ variable was found to be in tandem with the results of (Adamu, 2021; Alkilani, *et al.* 2019; Madugba, *et al.,* 2021) and negates the findings of (Hussaini & Benjamin 2015).

5 Conclusion and Recommendations

The findings of this investigation contribute significantly to the existing literature concerning "audit committee mechanism and audit quality of samples insurance companies in Nigeria". The results of the analysis suggest that insurance firms' internal factors tend to promote audit quality than the audit committee attribute. The lag dependent variable which is AQ (-1) was found to be positive and statistically significant in promoting audit quality. The study thereby recommended among others that insurance companies should emphasize and increase their drive for gender balance or diversity, embrace more of or higher level of independence as this will reduce undue interference from the board and further help to boost the decisions, depth and quality of the audit committees.

The study suggests the following recommendations based on the obtained results:

1. The positive relationship between audit committee gender (ACGR) and audit quality implies that when firms incorporate diversity in their audit committee they are likely to have better decision and quality audit outcomes. As such we recommend that insurance companies should emphasize and increase their drive for gender balance if possible as more of this will drive qualitative audit process. This can be visible by deliberately increasing the number of women and not just women but female experts in their audit committee because from the dataset generated it was observed that most firms had far below a balanced gender in their audit committee, thus its impact was seen to be statistically insignificant.
2. The negative and significant relationship that was found between ACD and AQ as well as ACSZ and AQ are pointers to the fact that excess meetings and oversized audit committee will lead to poor audit quality and as such we therefore recommend for firms to stick with the approved number of audit board and all audit committee should ensure they cut down any form of unnecessary and unproductive meetings. They should emphasize on qualitative factors rather than numerical metric alone if they must produce quality audit reports
3. Going by the positive and significant result of the one period lag of the dependent variable being one of the independent variables, we therefore recommend that firms should ensure that they pay the audit firms well as it has high implication for boosting that of the current years' audit quality.

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Board of Directors' Political Connection and Tax Aggressiveness among Listed Companies in Nigeria

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Abstract

This study investigates the impact of Board of Directors Political Connections (BDPC) on tax aggressiveness among 29 consumer and industrial goods companies listed in the Nigerian Exchange Group (NGX) from 2019–2024. Two econometric models were employed to measure tax aggressiveness: Model 1 utilized the Effective Tax Rate (ETR) under a Panel Random Effects regression. In contrast, Model 2 adopted Book-Tax Differences (BTD) within a Panel Fixed Effects framework. Both models incorporated BDPC as the primary independent variable, alongside control variables, including Operating Cash Flow Ratio (OCFR), Debt-to-Asset Ratio (DAR), Firm Size (FS), and Board Independence (BI). The results from both models revealed that BDPC does not statistically impact tax aggressiveness. The R-squared values exceeded 60% in both models, indicating moderate explanatory power, yet the overall models lacked statistical significance as reflected in their F-statistics. These findings suggest that political affiliations at the board level, as well as conventional governance and financial metrics, are not reliable predictors of tax aggressiveness in the Nigerian context. Instead, the study underscores the possible influence of unobserved firm-specific characteristics, institutional quality, and broader systemic factors. Consequently, policy efforts aimed at curbing aggressive tax practices in Nigeria should prioritize institutional reforms, regulatory enforcement, and tax transparency, rather than focusing solely on-board composition or political ties.

Keywords: Political Connections, Tax Aggressiveness, Corporate Governance.

1.0 Introduction

Tax aggressiveness has become an increasingly prominent corporate strategy. Firms are adopting various methods to minimize their tax obligations through interpretations of tax laws that, although legally permissible, often challenge the spirit of those laws (Desai et al., 2017). Such strategies are particularly appealing in environments where regulatory ambiguities persist, as is the case in many emerging economies, including Nigeria. While these approaches can enhance short-term financial performance, they also raise significant ethical concerns and attract scrutiny from regulators, stakeholders, and the public. In Nigeria, where the regulatory landscape is still evolving and institutional oversight is often inconsistent, the use of aggressive tax strategies is not only more prevalent but also more difficult to detect and regulate effectively (Ajide, 2016).

Corporate governance mechanisms are intended to align managerial decisions with shareholder interests and societal expectations. However, gaps in governance structures, especially those related to board oversight, can create opportunities for firms to engage in aggressive tax planning. One critical factor influencing governance outcomes in this area is the political connection of board members. Political connections, defined as affiliations or relationships between board members and political actors or institutions, provide firms with strategic advantages such as preferential access to regulators, information asymmetries, and favorable policy interpretations (Bassey & Ighorodje, 2019). In Nigeria, where the intersection between politics and business is particularly pronounced, these connections are often deliberately cultivated and institutionalized. As a result, politically connected firms may be more inclined to exploit regulatory discretion and adopt tax planning practices that border on avoidance, with minimal risk of enforcement or reputational damage (Mghabghab, 2015).

Empirical research from developed countries has demonstrated that political connections significantly influence corporate tax behavior. Studies from the United States (Kim & Zhang, 2016), United Kingdom (Huseynov & Klamm, 2019), Germany (Braithwaite & Wenzel, 2022), and Australia (Taylor & Richardson, 2020) have all found that firms with politically connected directors are more likely to engage in aggressive tax planning. However, this area remains underexplored in the Nigerian context, where the forms and consequences of political affiliations may differ substantially due to institutional, legal, and governance peculiarities. While a few Nigerian studies have examined the role of ownership structures or general governance quality in tax compliance (Efenana & Egbunike, 2023), comprehensive evaluations of board-level political influence are still limited. Furthermore, much of the existing literature treats political connections as a uniform construct, failing to capture the diversity of political affiliations such as ties to ruling parties, former government service, or campaign involvement, which may have varying effects on corporate behavior (Ahmad et al., 2024).

The issue is further compounded by the limited integration of ethical considerations and broader governance attributes, such as board independence, into existing models of tax planning in Nigeria. Independent directors may serve as a moderating force against politically driven tax aggressiveness, but empirical assessments of this interaction are lacking (Ibeh & Okoro, 2020). As Nigeria continues to grapple with revenue shortfalls and seeks to enhance tax compliance, understanding the role of political influence in corporate tax strategies becomes both timely and essential. Firms that exploit political connections for tax advantages not only distort the competitive landscape but also undermine public trust and fiscal equity (Ogunleye et al., 2021). In light of these concerns, this study investigates the impact of political connections within the boardroom on tax aggressiveness in quoted Nigerian companies. It explicitly evaluates whether the presence of politically affiliated directors is associated with more aggressive tax behaviors and how firm-level financial and governance attributes interact with such connections. The study is motivated by the need to fill notable gaps in the literature, particularly within the Nigerian context, where political affiliations are pervasive yet rarely analyzed through the lens of tax strategy. Drawing from the political economy

theory, the research formulates a testable hypothesis to guide empirical analysis. By testing this hypothesis, the study contributes to academic discourse while offering insights that are relevant for policymakers, regulators, and corporate stakeholders committed to promoting transparency and accountability in tax governance. Also, it signals to policymakers and stakeholders that efforts to reduce tax aggressiveness must go beyond corporate board structures and address deeper institutional and regulatory challenges within the tax system.

2.0 Literature Review

2.1 Tax Aggressiveness

Tax aggressiveness represents a firm's strategic approach to minimizing tax liabilities by exploiting ambiguities and gaps in tax legislation, reflecting a willingness to engage in risk-laden tax planning that stretches the conventional boundaries of tax compliance. Typically measured through indicators such as the effective tax rate gap, book-tax differences, and the frequency of using tax shelters, tax aggressiveness serves as a critical proxy for assessing how far a firm deviate from standard tax practices (Chen et al., 2020). Firms employing aggressive tax planning often manipulate reported earnings and tax liabilities by shifting profits to jurisdictions with lower tax rates. This is achieved through methods such as establishing offshore subsidiaries, adjusting transfer pricing, and designing hybrid financial instruments that enable income reallocation across borders (Lee & Kim, 2021). By strategically timing the recognition of income and leveraging disparities between domestic and international tax rules, companies can substantially reduce their current tax burdens while potentially enhancing future cash flows.

Recent empirical research has focused on refining the measurement of tax aggressiveness by developing quantitative proxies that capture both the scale and intensity of these avoidance strategies. For example, the effective tax rate gap which measures the difference between a firm's statutory tax rate and its actual effective tax rate provides insight into the degree of tax planning activity and indicates the extent to which reported tax liabilities differ from expected statutory obligations (Brown & Davis, 2019). Similarly, discrepancies between accounting income and taxable income, often referred to as book-tax differences; reveal the operational impact of aggressive tax planning by highlighting deviations in financial reporting practices. Such measures facilitate comparisons among firms and allow for the monitoring of changes in tax planning behavior as regulatory environments evolve.

Beyond these quantitative metrics, firms adopt a variety of sophisticated techniques to engage in aggressive tax planning. In addition to the well-documented use of offshore entities and transfer pricing manipulation, companies increasingly exploit hybrid arrangements and intra-group transactions to optimize their tax positions. These strategies enable the deferral of tax liabilities or the reallocation of income to jurisdictions where tax rules are more favorable. While these methods can lead to significant tax savings and enhanced after-tax performance, they also expose firms to higher regulatory scrutiny and the risk of reputational damage if perceived as excessively aggressive. The evolving global tax landscape with its intensifying international cooperation and stricter enforcement requires firms to continuously adapt their strategies, balancing the potential benefits of tax minimization against the inherent risks of non-compliance (Lee & Kim, 2021).

In light of these complexities, understanding tax aggressiveness is not solely a matter of financial engineering but also a critical component of corporate risk management and long-term strategic planning.

As tax policies and enforcement mechanisms continue to evolve, ongoing research is essential for elucidating the broader economic and governance implications of aggressive tax strategies. Such inquiry provides valuable insights into how firms navigate regulatory constraints while striving to maximize shareholder value, and it underscores the need for policymakers to consider the trade-offs between tax competitiveness and compliance in an increasingly interconnected global economy (Chen et al., 2020).

2.2 Board of Directors' Political Connections and Tax Aggressiveness

Politically connected firms possess distinctive attributes that enable them to navigate regulatory environments and influence tax policy outcomes. In the Nigerian context, political connections are identified through board members' affiliations with political institutions—such as holding public office, membership in dominant political parties, or involvement in political campaigns. These connections, typically captured using binary (dummy) variables coded as 1 (presence) or 0 (absence), serve as reliable indicators of a firm's embeddedness in political networks (Dewi & Yasa, 2020). Such affiliations may offer firms preferential access to policymakers, increased regulatory leniency, and informal influence over tax authorities. Empirical evidence suggests that boards with political ties are more likely to engage in aggressive tax planning. For instance, Chen et al. (2021) and Ibrahim and Bello (2020) show that politically connected directors often promote strategies that exploit regulatory gaps to minimize tax liabilities. In Nigeria, where institutional frameworks may be weak and political patronage pervasive, these connections offer firms an avenue to reduce effective tax rates with reduced risk of regulatory repercussions. Akintola et al. (2023) highlight how such firms may receive favorable outcomes during tax audits due to their influence, thereby enabling more aggressive tax behavior.

This phenomenon aligns with both the political economy and the resource dependence theories. The relevance of Political Economy Theory is underscored by the observation that politically connected companies often gain access to favorable tax treatments, and regulatory leniency, or exploit loopholes in the tax system. These firms leverage their political ties to secure advantages that may not be available to their less-connected competitors. For instance, it has been observed that companies with strong political affiliations are better positioned to influence tax policies and secure exemptions or reductions that directly impact their bottom line (Lee, 2019). In this context, the theory illuminates the pathways through which political lobbying can shape tax policies, particularly in environments where governance structures may allow for significant discretionary power. Such dynamics are evident in the Nigerian corporate landscape, where the interaction between political connections and fiscal policy has profound implications for economic equity and regulatory compliance. On the other hand, according to the resource dependence theory, politically connected boards enhance firms' access to scarce or valuable external resources such as insider knowledge of tax policy and enforcement trends (Ojo & Adebayo, 2020). These advantages may embolden firms to implement aggressive tax strategies that are difficult to detect or penalize. However, this behavior also raises ethical concerns. Folarin et al. (2021) argue that while such strategies may improve short-term financial performance, they can erode stakeholder trust and damage long-term reputational capital, particularly as expectations around corporate transparency and social responsibility increase. The Nigerian corporate landscape presents a compelling case for this analysis. Mohammed et al. (2019) and Eze et al. (2021) examined the relationship between politically connected boards and tax aggressiveness among listed firms. Their findings suggest that political connections are not merely symbolic but actively shape corporate tax behavior. This systemic interplay of political influence and regulatory weakness can

institutionalize tax aggressiveness, undermining public trust in the tax system. As such, there is a growing need for regulatory reforms that mitigate the influence of political connections on corporate governance, thereby fostering greater tax compliance and fiscal responsibility in emerging markets. Premised on the above, the study formulates the hypothesis thus:

H_{01}: Board of Directors Political Connection has positive significant impact on tax aggressiveness of consumer and industrial goods listed in the NGX.

2.3 Board of Directors Political Connections and Corporate Governance

In Nigeria's dynamic business landscape, the influence of politically connected board members on corporate decision-making has emerged as a critical factor shaping governance practices. Recent research suggests that these connections offer firms unique advantages, such as enhanced access to regulatory frameworks and government resources, which can facilitate smoother operations in environments marked by bureaucratic complexities (Adeniran & Udeogu, 2020). For example, in the oil and gas sector, companies often secure vital contracts and licenses through directors who have established networks within political circles. Such access can be instrumental in overcoming regulatory hurdles; however, it also introduces the risk of decisions being swayed by political expediency rather than sound business judgment. Politically connected board members may prioritize short-term political gains over long-term strategic goals, leading to governance challenges that undermine shareholder value. Empirical evidence from Nigerian firms indicates that while these directors bring valuable insights into navigating government relations, their involvement in critical decision-making processes can sometimes result in conflicts of interest, especially when personal political ambitions intersect with corporate objectives (Oladele & Opeyemi, 2019).

This duality is particularly evident in sectors with substantial government oversight, where political ties can both expedite decision-making and compromise the integrity of governance structures. In some cases, boards composed of individuals with strong political affiliations have been observed to favor investments and projects that align more closely with political interests rather than the company's long-term growth strategies. Such practices have led to instances where strategic decisions were influenced by external political pressures rather than by robust financial analyses, thereby affecting overall firm performance. Moreover, the presence of politically affiliated directors may dilute the effectiveness of independent oversight mechanisms, reducing transparency and accountability within the board. This phenomenon is evident in certain Nigerian financial institutions where board decisions have at times been critiqued for reflecting political loyalties over prudent risk management practices, ultimately eroding investor confidence (Adeniran & Udeogu, 2020).The Nigerian experience highlights a critical governance dilemma: while political connections can provide valuable advantages in a complex regulatory environment, they can also create vulnerabilities when such relationships compromise objective decision-making. This tension underscores the need for enhanced corporate governance frameworks that balance the benefits of political insights with stringent oversight to prevent undue influence. By instituting robust checks and balances, companies can mitigate the potential adverse effects of political interference, ensuring that the strategic direction of the firm remains aligned with the interests of shareholders and the broader economic landscape. As illustrated by recent empirical studies, a nuanced approach that leverages political networks without compromising ethical standards and operational efficiency is essential for sustainable corporate growth in Nigeria (Oladele & Opeyemi, 2019).

2.4. Firm-Level Attributes and Tax Aggressiveness

Firm-level financial characteristics significantly influence corporate tax behavior in Nigeria. Key among these is the operating cash flow ratio, the debt-to-asset ratio, and the firm size. The operating cash flow ratio, which reflects a firm's liquidity, is positively associated with tax aggressiveness. Firms with strong cash flows may invest in tax planning strategies such as timing revenue recognition or exploiting depreciation rules to reduce tax liabilities. While such practices enhance short-term liquidity and financial flexibility, they may attract increased scrutiny from regulators if perceived as overly aggressive (Adegbie & Olowookere, 2019).The debt-to-asset ratio, a measure of financial leverage, also shapes tax planning behavior. Highly leveraged firms often face liquidity pressures and may adopt aggressive tax strategies such as deferring liabilities or reclassifying expenses to preserve cash and meet debt obligations. This tendency is particularly evident in Nigeria, where high borrowing costs and limited access to affordable capital compel firms to manage tax burdens strategically. However, while such measures may alleviate immediate financial stress, they can expose firms to future tax adjustments and reputational risks (Owolabi & Adeyemi, 2020).Firm size is another important determinant. Larger firms in Nigeria typically have more resources, in-house tax expertise, and access to sophisticated advisory services, enabling them to exploit legal tax loopholes more effectively than smaller firms. Such companies may engage in transfer pricing or establish subsidiaries in low-tax jurisdictions, benefiting from economies of scale in tax planning. However, their complex tax strategies often draw increased attention from tax authorities, potentially affecting long-term reputational capital. In contrast, SMEs tend to adopt more conservative tax approaches due to limited resources and a heightened sensitivity to regulatory penalties (Chukwu & Oseni, 2022).

Collectively, these firm-level attributes, liquidity, leverage, and scale, create a nuanced environment where a mix of financial capability, risk tolerance, and regulatory pressure shapes tax planning decisions. For example, while a large Nigerian conglomerate may aggressively optimize tax to boost shareholder value, a mid-sized manufacturing firm might prioritize compliance to avoid audit risk. The interplay of these variables underscores the need for policy frameworks that account for firm heterogeneity in tax behavior. As Nigeria continues to reform its fiscal landscape, understanding how firm characteristics influence tax strategies is critical for developing balanced policies that discourage excessive tax avoidance without stifling legitimate financial management.

2.5.Empirical Review

The following empirical studies examine the influence of politically connected boards and firm-level attributes on tax aggressiveness, providing a foundation for the present investigation. Fan and Chen (2023) investigated how political connections influence the relationship between firms' business strategies and their tax aggressiveness in China. Using a panel regression model, they analyzed data from 2011 to 2017 to assess variations in corporate tax strategies. The study found that firms adopting innovative business strategies tended to engage in tax aggressiveness. However, politically connected firms demonstrated lower levels of tax aggressiveness compared to non-connected firms. The authors argued that political connections impose certain costs, such as increased regulatory scrutiny and reduced flexibility in tax-saving strategies. Their results suggested that political connections act as a moderating force in corporate tax decisions. The study provided insights into how firms strategically adjust their tax behaviors based on their business models and political affiliations. These findings contribute to the broader discussion on corporate taxation,

political influence, and regulatory oversight in emerging markets. Also, Ahmad et al. (2024) explored tax payment behaviors among politically connected firms in Pakistan, distinguishing between civil and military connections. Their empirical analysis used a dataset of listed firms to assess how different types of political ties influence tax aggressiveness. The results showed that firms with civil political connections were more tax aggressive, paying significantly lower taxes compared to non-connected firms. In contrast, firms with military connections exhibited a higher tax burden, suggesting that political affiliation type matters in corporate tax strategies. The study provided insights into the complex nature of political influence on corporate taxation, revealing a divergence in tax compliance based on the type of political association. The authors argued that military-connected firms might be subject to stricter regulatory scrutiny, leading to higher tax payments. Their findings highlighted the need for a nuanced approach in assessing political connections and tax strategies. These insights are particularly relevant for policymakers in economies where political affiliations shape corporate decision-making.

Furthermore, Otuedon and Omoye (2024) explored the impact of board characteristics on tax planning among publicly listed companies in Nigeria. Utilizing a five-year dataset from 2017 to 2021, their study employed panel regression techniques to assess the influence of various board attributes. The results indicated that both board independence and political connections are positively associated with proactive tax planning practices. In contrast, board size and gender diversity did not show a significant impact. The authors suggest that while politically connected board members may facilitate aggressive tax strategies, there is a need for stringent monitoring to prevent potential tax manipulations that could adversely affect government revenue. While Ugwu et al. (2024) focused on the relationship between board characteristics and tax aggressiveness in Nigeria's banking sector. Analyzing data from nine listed deposit money banks over a decade (2012-2022), the study found that board independence and size did not significantly influence tax aggressiveness. However, gender diversity on boards was associated with a higher cash-effective tax rate, suggesting that increased female representation may lead to more conservative tax practices. The authors recommend maintaining smaller, expert-rich boards and ensuring that female directors possess substantial tax-related expertise to mitigate aggressive tax behaviors effectively.

Ahmad et al. (2023) investigated how different types of political connections and periods of political uncertainty affect earnings credibility in Pakistani firms. The study categorized political connections into civil and military groups and assessed their impact on financial reporting. Findings revealed that firms with civil political ties reported less credible earnings, whereas those connected to the military demonstrated more reliable financial reporting. Additionally, heightened political uncertainty was found to diminish earnings credibility across the board. These insights underscore the complex interplay between political affiliations and financial transparency, highlighting the need for robust governance frameworks to enhance earnings reliability. Also, Lee and Kim (2021) explored how the political affiliations of board members impact tax aggressiveness in South Korean publicly listed companies. Analyzing data from 2008 to 2016 with a generalized method of moments (GMM) estimator, the study found that politically connected firms engage less in aggressive tax strategies, particularly during election years. The authors suggested that firms avoid aggressive tax behavior to prevent political backlash and reputational damage. Moreover, politically connected firms benefited from favorable regulatory environments, reducing the incentive to exploit tax loopholes. The study adds to the literature by emphasizing the temporal nature of political influence on corporate tax decisions.

Okagbare and Okolie (2024) evaluated the relationship between tax aggressiveness and operating cash flows in Nigerian banks. Analyzing data from 12 banks over the period 2012 to 2021, the study employed panel least squares estimation techniques. The results indicated a negative and negligible association between tax aggressiveness proxies and operating cash flows, suggesting that aggressive tax planning does not significantly impact the liquidity position of these banks. This finding implies that other factors may play more substantial roles in influencing the operating cash flows of financial institutions. The authors further argued that while tax aggressiveness can reduce tax liabilities, its effect on immediate cash flow generation remains minimal, as operational efficiency, cost management, and revenue diversification appear to be more critical determinants. Additionally, the study highlighted the need for regulatory authorities to focus on broader financial management practices beyond just tax compliance. The study recommended future research to explore the mediating effects of corporate governance and macroeconomic variables on the tax aggressiveness–cash flow nexus. The study's insights provide valuable implications for policymakers, financial managers, and stakeholders seeking to enhance the financial resilience of Nigerian banks.

Stevanie and Sudirgo (2024) analyzed the effect of leverage, liquidity, and firm size on tax aggressiveness in the building and construction industry. Using data from 21 companies over the period 2020 to 2022, the study applied Partial Least Squares (PLS) methodology. The results indicated that leverage and firm size do not have a significant impact on tax aggressiveness. In contrast, liquidity was found to have a positive and significant effect on tax aggressiveness, implying that companies with higher liquidity are more likely to engage in aggressive tax strategies. This research highlights the role of liquidity in influencing tax planning decisions within the construction sector. The authors explained that firms with ample cash reserves have more flexibility to exploit tax loopholes and implement complex tax avoidance schemes. They further suggested that liquidity provides the financial cushion necessary for companies to bear potential legal costs associated with aggressive tax planning. Moreover, they emphasized that policymakers should closely monitor highly liquid firms to mitigate potential revenue losses. The study also recommended exploring the mediating role of managerial incentives in future research. These findings offer practical implications for regulators and stakeholders seeking to understand the financial factors driving tax behavior in the construction industry.

Ilomata et al. (2024) conducted a study to assess the impact of liquidity, leverage, and firm size on tax aggressiveness among mining companies listed on the Indonesia Stock Exchange between 2020 and 2022. Utilizing Partial Least Squares (PLS) for data analysis, the findings revealed that liquidity and leverage do not significantly influence tax aggressiveness. However, firm size demonstrated a negative and significant effect, indicating that larger firms are less likely to engage in aggressive tax planning. These results suggest that while liquidity and leverage may not be primary determinants, the size of a firm plays a crucial role in its tax strategy decisions within the mining industry. The authors argued that larger firms prioritize reputational concerns and regulatory compliance, which discourages aggressive tax behavior. They also noted that such companies are more visible to tax authorities and the public, reducing the incentive to pursue aggressive tax practices. The study highlighted the importance of corporate transparency in shaping tax-related decisions. The study recommended that future research examine the influence of ownership structure and board composition on tax aggressiveness. These findings underscore the necessity for regulators to consider firm-specific dynamics when formulating tax policies for the mining sector.

2.6 Theoretical Review

Political Economy Theory

Political Economy Theory has long served as a critical lens through which scholars examine the interplay between politics, economics, and corporate behavior. Rooted in the seminal work of Adam Smith (1776), the theory has evolved over centuries to provide insights into how political institutions and economic policies are mutually constitutive. At its core, Political Economy Theory asserts that the distribution of resources, regulatory practices, and fiscal policies are not isolated phenomena but are deeply embedded within the political fabric of society. This perspective has become especially pertinent in an era where corporate strategies are increasingly shaped by the nuances of political influence and lobbying practices. In contemporary discussions, the relevance of Political Economy Theory is underscored by the observation that politically connected companies often gain access to favorable tax treatments, and regulatory leniency, or exploit loopholes in the tax system. These firms leverage their political ties to secure advantages that may not be available to their less-connected competitors. For instance, it has been observed that companies with strong political affiliations are better positioned to influence tax policies and secure exemptions or reductions that directly impact their bottom line (Lee, 2019). In this context, the theory illuminates the pathways through which political lobbying can shape tax policies, particularly in environments where governance structures may allow for significant discretionary power. Such dynamics are evident in the Nigerian corporate landscape, where the interaction between political connections and fiscal policy has profound implications for economic equity and regulatory compliance.

The nexus between political connections and tax aggressiveness is particularly salient when examining the role of corporate boards in Nigeria. Boards that include members with established political networks can, in effect, convert political capital into economic gain. These executives are often in a position to secure preferential treatment in the form of reduced tax liabilities, either through direct influence over policy decisions or by capitalizing on existing regulatory gaps. The phenomenon, while providing immediate financial benefits to the firms involved, raises critical questions about fairness in the tax system and the broader implications for public revenue. Recent empirical studies suggest that such politically motivated tax strategies are not merely opportunistic but are indicative of a systematic exploitation of political relationships to gain economic advantage (Fisman & Love, 2004). This exploitation of connections is reflective of a broader trend where the blurring of lines between political influence and corporate governance creates an environment ripe for fiscal manipulation. Nigeria's political-economic environment offers a compelling case study in the application of Political Economy Theory. The country's regulatory framework and the persistence of political patronage have created conditions that facilitate and, to some extent, restrain aggressive tax practices. On one hand, the deep-seated culture of political affiliation in corporate boardrooms allows companies to navigate a labyrinth of regulatory and policy-related challenges by leveraging informal networks. Such networks often result in access to insider information and preferential regulatory treatment that enables these firms to minimize their tax liabilities strategically. On the other hand, recent reforms aimed at increasing transparency and accountability have begun to impose constraints on these practices, highlighting a tension between entrenched political interests and emerging demands for fiscal integrity (Obi, 2021).

This dual dynamic where political connections can enable and eventually curb tax aggressiveness illustrates the complex and often contradictory nature of the Nigerian political-economic system. The theory posits

that the interplay between political lobbying, regulatory capture, and economic policy not only shapes corporate behavior but also affects the overall fiscal health of the nation. Aggressive tax avoidance strategies, while beneficial for individual firms in the short term, can erode public trust and undermine the government's capacity to generate revenue for essential services. As governments worldwide, including Nigeria's, increasingly focus on combating tax evasion and fostering a more equitable tax system, the insights provided by Political Economy Theory become invaluable for understanding the underlying drivers of corporate tax strategies (Acemoglu & Robinson, 2012). Moreover, the implications of politically connected tax aggressiveness extend beyond the immediate fiscal benefits accrued by individual firms. They carry significant societal repercussions. Reduced tax revenues can impair public spending on infrastructure, healthcare, and education, exacerbating socioeconomic disparities. The theory encourages a reexamination of the regulatory frameworks that allow such practices to persist, advocating for institutional reforms that enhance transparency and accountability in corporate governance. By highlighting the critical role of political institutions in shaping economic outcomes, Political Economy Theory provides a robust framework for policymakers seeking to balance the interests of the private sector with the broader goals of national development and fiscal justice.

3.0. Methodology

This study adopts a positivist research philosophy and a deductive approach grounded in agency theory. Hypotheses are formulated and tested empirically through econometric models. A longitudinal research design is employed, utilizing secondary data from 29 Nigerian listed companies covering 2019–2024 within the consumer and industrial goods segments. Data were sourced from audited annual reports, the Nigerian Stock Exchange (NSE) database, and public records, capturing board political connections, financial metrics, and tax data. The dependent variable, tax aggressiveness, is proxied by the Effective Tax Rate (ETR) and the Book-Tax Differences (BTD). In contrast, key independent and control variables include Board Political Connections (BDPC), Operating Cash Flow Ratio (OCFR), Debt-to-Asset Ratio (DAR), Firm Size (FS), and Board Independence (BI). Due to the potential heterogeneity concern, the study adopts the panel estimation technique using the E-View 10 software.

Model Specification

This study adapts the conceptual model proposed by Sulistyana and Ismanto (2025), which establishes a theoretical relationship between political connections, managerial ownership, capital intensity, company size, and tax aggressiveness. Drawing upon this framework and integrating relevant independent variables based on prior empirical literature, the study specifies its econometric models below to examine how political board connections influence corporate tax aggressiveness using two alternative proxies: Effective Tax Rate (ETR) and Book-Tax Differences (BTD).Relying on the political economy theory and modifying the framework of Sulistyana and Ismanto (2025), the econometric models for this study are presented as follows:

Model 1: Tax aggressiveness measured using the Effective Tax Rate (ETR)

$$ETR_{it}=\beta 0+\beta 1BDPC_{it}+\beta 2OCFR_{it}+\beta 3DAR_{it}+\beta 4FS_{it}+\beta 5BI_{it}+\varepsilon_{it} \quad [1]$$

Model 2: Tax aggressiveness measured using the Book-Tax Differences (BTD)

$BTD_{it}=\beta0+\beta1BDPC_{it}+\beta2OCFR_{it}+\beta3DAR_{it}+\beta4FS_{it}+\beta5BI_{it}+\varepsilon_{it}$ – – – – – – – – – – – – – [2]

Where: ETR= Effective Tax Rate; BTD= Book-Tax Differences; BDPC = Board of Directors Political Connections; OCFR = Operating Cash Flow Ratio; DAR = Debt-to-Asset Ratio; FS = Firm Size (log of total assets); BI = Board Independence; $\beta0$= constant; $\beta1$-$\beta5$= unknown coefficient; t= time (2019-2023); i= firm; and μ= error term.

Table 1: Measurement of variables

S/n	Variables	Acronyms	Measurement	Apriori sign	Justification
Dependent variable					
1	Effective tax rate	ETR	Total tax expenses/Pre-tax Book Income.	Nil	Sulistyana and Ismanto (2025).
2	Book-tax differences	BTD	Pre-tax Book Income−Taxable Income/Total Assets	Nil	Guenther (2014).
Independent variables					
3	Board of Directors Political Connections	BDPC	A dummy variable equal to 1 if any of the themes used to represent BDPC is present and 0 otherwise, as measured by the Politically Board.	– / +	Sulistyana and Ismanto (2025).
Control Variables					
4	Operating cash flows ratio	OCFR	The Percentage of Cash flows from operations divided by total assets	+	Okagbare and Okolie (2024)
5	Debt to asset ratio	DAR	The Percentage of total debts divided by total assets	–	Stevanie and Sudirgo (2024).
6	Firm size	FS	The natural logarithm of total assets	– / +	Ilomata et al. (2024).
7	Board Independence	BI	The proportion of independent non-executive directors relative to the total number of directors	+	Ugwu et al. (2024).

Source: Researcher's Compilation (2025)

4.0. Results Discussion

Table 2: Panel Hausman Test

Effective Tax Rate (Model 1)				
	Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
	Cross-section random	3.265923	5	0.6591
Book-Tax Differences (Model 2)				
	Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
	Cross-section random	18.981246	5	0.0019

Source: Author's Computation (2025)

Table 2 presents the Hausman test results for selecting between Fixed and Random Effects models for two proxies of tax aggressiveness: Effective Tax Rate (ETR) and Book-Tax Differences (BTD). For Model 1 (ETR), the test yields a p-value of 0.6591, indicating Random Effects is appropriate. Conversely, Model 2

(BTD) reports a p-value of 0.0019, supporting the Fixed Effects model. These findings imply that model selection depends on the chosen proxy. The use of Random Effects for ETR and Fixed Effects for BTD ensures methodological consistency and reliable inference in the regression analysis.

Table 3: Panel Multiple Regression Results

Model 1: Random Effects Regression (ETR as Proxy)				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
BDPC	3.313337	1.972661	1.679628	0.0950
OCFR	-0.004472	0.034877	-0.128210	0.8981
DAR	0.041818	0.181824	0.229989	0.8184
FS	0.215143	0.382942	0.561816	0.5750
BI	2.343354	3.272080	0.716167	0.4749
R-squared	0.625584	Durbin-Watson stat		2.407657
Model 2: Fixed Effects Regression (BTD as Proxy)				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
BDPC	0.666908	1.055834	0.631641	0.5287
OCFR	-0.053952	0.028034	-1.924523	0.0564
DAR	-0.035498	0.189827	-0.187001	0.8519
FS	-0.320532	1.650857	-0.194161	0.8463
BI	0.118287	2.908220	0.040673	0.9676
C	2.005429	12.22951	0.163983	0.8700
R-squared	0.611412	Durbin-Watson stat		2.025464

Source: Author's Computation (2025)

H_{01}: There is no significant relationship between the board of directors' political connections and tax aggressiveness of consumer and Industrial Goods Companies Listed in the NGX.

In Table 3, where ETR is a proxy in Model 1, the coefficient for Board of Directors Political Connections (BDPC) was 3.313337 with a p-value of 0.0950. Although this positive coefficient implies that politically connected firms tend to have higher ETR (i.e., lower tax aggressiveness), the effect is not statistically significant at the 5% level. This dual dynamic where political connections can enable and eventually curb tax aggressiveness illustrates the complex and often contradictory nature of the Nigerian political-economic system. On one hand, the deep-seated culture of political affiliation in corporate boardrooms allows companies to navigate a labyrinth of regulatory and policy-related challenges by leveraging informal networks. Such networks often result in access to insider information and preferential regulatory treatment that enables these firms to minimize their tax liabilities strategically. On the other hand, recent reforms aimed at increasing transparency and accountability have begun to impose constraints on these practices, highlighting a tension between entrenched political interests and emerging demands for fiscal integrity (Obi, 2021). As governments worldwide, including Nigeria's, increasingly focus on combating tax evasion and fostering a more equitable tax system, the insights provided by Political Economy Theory become invaluable for understanding the underlying drivers of corporate tax strategies (Acemoglu & Robinson, 2012). Moreover, the implications of politically connected tax aggressiveness extend beyond the immediate fiscal benefits accrued by individual firms. They carry significant societal repercussions. Reduced tax

revenues can impair public spending on infrastructure, healthcare, and education, exacerbating socioeconomic disparities. The theory encourages a reexamination of the regulatory frameworks that allow such practices to persist, advocating for institutional reforms that enhance transparency and accountability in corporate governance. Political Economy Theory provides a robust framework for policymakers seeking to balance the interests of the private sector with the broader goals of national development and fiscal justice.

The findings aligns partially with studies like Zhang and Luo (2022) and Adegbite and Olayemi (2020), which observed lower tax aggressiveness in politically connected firms due to regulatory scrutiny and fear of exposure. However, this study's lack of statistical significance suggests that, within Nigeria, the moderating power of political connections may be diluted by contextual institutional factors, such as inconsistent enforcement or informal political influence. Also, the OCFR had a coefficient of -0.004472 and a p-value of 0.8981, showing no statistically significant effect on ETR. This finding differs from Okagbare and Okolie (2024), who noted a weak link between tax aggressiveness and cash flows in Nigerian banks. Also, it contradicts Ramadanti et al. (2024), who found some influence of liquidity on tax behavior. In this study, the insignificance suggests that liquidity, as proxy by OCFR, is not a strong determinant of tax aggressiveness among Nigerian quoted firms.

The DAR showed a coefficient of 0.041818 with a p-value of 0.8184, indicating no significant influence of leverage on ETR. This contradicts findings from Martins and Sule (2024) and Dibie and Ogbodo (2024), who documented a negative and significant relationship between leverage and tax aggressiveness in Nigeria. The divergence here may suggest that the tax advantages of debt financing (i.e., interest deductibility) are not being fully utilized or recognized within the sampled firms. Moreover, Firm Size (FS) had a coefficient of 0.215143 with a p-value of 0.5750, showing an insignificant positive relationship with ETR. This contradicts studies such as Ramadanti et al. (2024) and Ilomata et al. (2024), where firm size negatively influenced tax aggressiveness. The discrepancy could be attributed to differences in sectoral composition or regulatory enforcement in Nigeria compared to other jurisdictions. While Board Independence (BI) yielded a coefficient of 2.343354 and a p-value of 0.4749, suggesting no significant effect on tax aggressiveness. This aligns with the broader conclusion by Lee and Kim (2021) and Ahmad et al. (2023) that internal governance mechanisms, such as board independence, may not always curb aggressive tax behaviour, especially in environments with a weak governance culture. Overall, the R-squared value is 0.625584, indicating that the model explains approximately 62.6% of the variation in the Effective Tax Rate, reflecting a moderate explanatory power level. Moreover, the Durbin-Watson statistic of 2.407657 suggests no serious autocorrelation issue in the model.

Furthermore, where BTD was used as a proxy in Model 2, it showed a BDPC coefficient of 0.666908 with a p-value of 0.5287, indicating a positive but statistically insignificant relationship. While the positive coefficient implies that politically connected firms might engage in more aggressive tax planning (via larger BTDs), the insignificance suggests this pattern is not robust. Within the context of political economy theory, politically connected companies often gain access to favorable tax treatments, and regulatory leniency, or exploit loopholes in the tax system. These firms leverage their political ties to secure advantages that may not be available to their less-connected competitors. For instance, companies with strong political affiliations are better positioned to influence tax policies and secure exemptions or reductions that directly impact their bottom line (Lee, 2019). Boards that include members with established political networks can,

in effect, convert political capital into economic gain. These executives are often in a position to secure preferential treatment in the form of reduced tax liabilities, either through direct influence over policy decisions or by capitalizing on existing regulatory gaps. The phenomenon, while providing immediate financial benefits to the firms involved, raises critical questions about fairness in the tax system and the broader implications for public revenue. Recent empirical studies suggest that such politically motivated tax strategies are not merely opportunistic but are indicative of a systematic exploitation of political relationships to gain economic advantage (Fisman & Love, 2004). This exploitation of connections is reflective of a broader trend where the blurring of lines between political influence and corporate governance creates an environment ripe for fiscal manipulation. Nigeria's political-economic environment offers a compelling case study in the application of Political Economy Theory. The country's regulatory framework and the persistence of political patronage have created conditions that facilitate aggressive tax practices. This is evident in the Nigerian corporate landscape, where the interaction between political connections and fiscal policy has profound implications for economic equity and regulatory compliance.

This result resonates with Rudyanto et al. (2023), who found that political connections do not independently drive tax aggressiveness unless moderated by ethical standards, and with Ahmad et al. (2024), who noted variation in tax behavior based on the type of political tie. However, the OCFR in this model had a coefficient of -0.053952 with a p-value of 0.0564, indicating a marginally insignificant inverse relationship. This implies that firms with higher liquidity might be slightly less aggressive in tax planning, which supports the theoretical expectation and partially aligns with findings from Ilomata et al. (2024). The DAR had a coefficient of -0.035498 with a p-value of 0.8519, reinforcing the earlier conclusion that leverage does not significantly impact tax aggressiveness in Nigerian firms. Again, this contradicts evidence from Dibie and Ogbodo (2024), suggesting that firm-level tax behavior in Nigeria may deviate from theoretical norms due to systemic or strategic factors.

Also, the coefficient for Firm Size (FS) was -0.320532, with a p-value of 0.8463, showing no significant impact. This reaffirms the inconclusive role of firm size on tax planning in this study, in contrast with Ramadanti et al. (2024) and Martins and Sule (2024), who found significant size effects in other sectors or regions. Also, Board Independence (BI) returned a coefficient of 0.118287 and a p-value of 0.9676, reaffirming its lack of influence on aggressive tax behavior. This strengthens the conclusion that board independence alone may not be effective in curbing tax avoidance, particularly in jurisdictions with weak regulatory oversight or ineffective governance practices. The R-squared value is 0.611412, suggesting the model explains approximately 61.1% of the variation of the book-tax difference. Moreover, the Durbin-Watson statistic is 2.025464, close to the ideal value of 2, indicating no significant autocorrelation in the model's residuals.

Across both models, the result suggests that while politically connected firms may exhibit less or more tax aggressiveness depending on the proxy used, political affiliations alone do not exert a statistically significant impact on tax behavior in Nigerian quoted companies. This finding contrasts with several studies (Adegbite & Olayemi, 2020; Zhang & Luo, 2022), indicating that the Nigerian institutional environment may moderate or obscure the effects of political connections. Moreover, none of the control variables, OCFR, DAR, FS, or BI, was statistically significant in either model. This mirrors Okagbare and Okolie (2024), who found a limited impact of firm-level financial metrics on tax behavior. The results imply that unobserved variables, including industry practices, ownership structure, regulatory quality, or

macroeconomic factors, may be more influential in shaping tax planning strategies. These findings underscore that enhancing tax compliance in Nigeria may require reforms that go beyond governance structures, focusing instead on strengthening enforcement mechanisms, closing regulatory loopholes, and promoting institutional accountability. The empirical results, while inconclusive on political connections, offer a foundation for future research into how informal institutions, enforcement quality, and sector-specific dynamics influence corporate tax behavior.

5.0 Conclusion

The empirical evidence from both regression models consistently reveals that BDPC does not statistically impact tax aggressiveness in the Nigerian context. Although the coefficients for BDPC were positive in both models, suggesting a tendency for politically connected firms to have higher ETRs or wider BTDs, the associated p-values were above the conventional threshold of 0.05. This lack of statistical significance implies that political connections alone may not sufficiently explain variations in tax planning practices among Nigerian firms. Overall, the findings indicate that traditional governance metrics and financial ratios may not be Nigeria's primary determinants of tax aggressiveness. Instead, the results suggest that more complex, firm-specific, or systemic institutional factors such as regulatory enforcement, tax administration efficiency, and informal norms could be more influential in shaping tax behavior. This study contributes to the existing literature by highlighting the limited role of political connections and governance variables in explaining tax aggressiveness in an emerging economy like Nigeria. It also signals to policymakers and stakeholders that efforts to improve tax compliance and reduce aggressive tax strategies must go beyond corporate board structures and address deeper institutional and regulatory challenges within the tax system.

Based on the findings, the study made the following recommendations: (i) the lack of significant influence from political connections and governance structures suggests that regulatory enforcement may be weak. The Federal Inland Revenue Service (FIRS) should improve its capacity to detect and penalize aggressive tax planning through stronger audits, compliance checks, and enforcement actions; (ii) regulatory bodies such as the Financial Reporting Council of Nigeria (FRCN) should enforce enhanced tax reporting requirements. Transparent and detailed tax disclosures in corporate financial statements can help discourage aggressive tax behaviors and enable better stakeholder scrutiny; (iii) since neither Board Political Connections nor Board Independence significantly impacted tax aggressiveness, policy reforms should prioritize strengthening institutions like the tax authorities, anti-corruption agencies, and the judiciary rather than focusing solely on-board structures; (iv) companies should be encouraged to view tax compliance as part of their ethical and social responsibility. Professional bodies like ICAN and CITN can lead awareness campaigns emphasizing the long-term reputational and economic benefits of responsible tax behavior; and (v) the government should critically evaluate current tax incentives to prevent abuse as tax avoidance tools. More targeted, performance-based incentives can help reduce aggressive tax planning opportunities while supporting investment goals. Future study can examine how institutional reforms can shape tax aggressiveness practices.

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Corporate Governance Indicators and Sustainability Reporting Quality of Listed Firms in Nigeria

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Abstract

Sustainability reporting quality is a reflection of management commitment to transparency and accountability in listed firms. Poor quality reporting has resulted into diminished trust in organizations management and downward trend in the trust on the management of the firms. Research has shown that not many listed firms have integrated corporate performance indicators in to their operation. This study explores the relationship between corporate governance indicators and sustainability reporting quality among listed firms in Nigeria, focusing on three key sectors: industrial goods, construction/real estate, and oil and gas while the census method of sampling was used. Drawing on longitudinal data spanning from 2013 to 2023, the ordered logistic regression analysis was employed to investigate the impact of board size, board independence, board gender diversity, board financial expertise, and audit committee size on sustainability reporting quality. While the findings indicate a generally insignificant influence of board size, board independence, and board financial expertise on sustainability reporting quality, significant positive associations are observed between board gender diversity and audit committee size on sustainability reporting quality(0.1232 and 0.0153 coefficient respectively). The study concludes that the management of the firms should optimize board membership for diverse skills, fostering effective decision-making processes, and encouraging board gender diversity to enhance sustainability reporting quality in Nigerian listed firms.

Keywords: Board gender diversity, Board independence, Board size, Corporate governance, Sustainability reporting quality

1.0 Introduction

The discourse surrounding corporate governance and the quality of sustainability reporting has consistently occupied a significant place on the global stage (Rabi (2021). An effective corporate governance framework bolsters investor confidence, fosters transparency, and thereby facilitates augmented disclosures and the creation of reports of high caliber. Corporate governance encompasses a constellation of regulations, traditions, and protocols that steer and regulate business undertakings. As clarified by Osemene and Fagbemi (2019), it encompasses the intricate web of relationships between a company's management, its board of directors, shareholders, and other pertinent stakeholders (Githaiga & Kosgei, 2023).

Sustainability reporting quality is a pivotal aspect of corporate accountability in the contemporary business environment. It involves the systematic disclosure of an organization's environmental, social, and governance (ESG) performance to stakeholders, including investors, regulators, employees, customers, and communities. High-quality sustainability reporting goes

beyond mere compliance with regulations; it reflects an organization's genuine commitment to sustainability and responsible business practices (Amran, Lee, & Devi, 2014; Jadoon, et. al., 2021). Against this backdrop, this study delved into the intricate relationship between corporate governance and sustainability reporting quality of listed firms in Nigeria using the following indicators: board size, board independence, board gender diversity, board financial expertise and audit committee size while financial performance and firm size were used as control,

Haladu and Bin-Nashwan (2022); Kumo, Hamid, and Sahdan (2023) and Onyali, Eze and Okerekeoti (2022) stated that many Nigerian companies have faced accusations of opacity in their corporate governance practices and reporting. Instances of insufficient disclosure of Environmental, Social, and Governance (ESG) performance data raise concerns about accountability and trustworthiness

Numerous research endeavors have investigated the impact of corporate governance on sustainability reporting within the context of individual firms (Olayinka & Owolabi, 2021), specific countries (e.g., Adegboye, Ojeka, Alabi, Alo & Aina, 2020; Erin, Adegboye & Bamigboye, 2021; Oyekale, Olaoye & Nwaobia, 2022; Shuaibu, Muhammad & Isah, 2019), and cross-country analyses (Kilincarslan, Elmagrhi & Li, 2020; Ofoegbu, Odoemelam & Okafor, 2018).

Despite the increasing significance of sustainability reporting and its alignment with responsible business practices, there remains a scarcity of comprehensive empirical investigations that delved into the intricate dynamics between corporate governance and sustainability reporting quality within the context of Nigeria's diverse industries (Umukoro, Uwuigbe, Uwuigbe, Adegboye, Ajetunmobi & Nwaze, 2019). While Okere, Rufai, Okeke and Oyinloye (2021), Osemene and Fagbemi (2019) and Olayinka and Owolabi (2021) has examined the impact of corporate governance on sustainability reporting in various settings. There is a dearth of research specifically tailored to the quality of sustainability reporting in Nigeria's unique business environment.

Empirical studies have examined the relationship between corporate governance and sustainability reporting, yielding a range of findings. Some studies, such as those by Adegboye, Ojeka, Alabi, Alo and Aina (2020); Al-Shaer, Salama and Toms (2017); Bakar, Ghazali and Ahmad (2019); Rabi (2021); Rafique, Malik, Waheed and Khan (2017) and Shuaibu, Muhammad and Isah (2019) have shown that corporate governance variables and sustainability reporting are related in a positive way. These studies argue that factors such as board diversity, board independence, and board size are associated with improved sustainability reporting practices. However, Kilincarslan, Elmagrhi and Li (2020); Mawardani and Harymawan (2021); Odoemelam and Okafor (2018) and Onyali, Eze and Okerekeoti (2022) found a contrary result and argued that the relationship between corporate governance and sustainability reporting tends to be negative.

In the existing body of research, studies such as Corvino, Doni, and Bianchi-Martini (2020), Diamastuti, Muafi, Fitri, and Faizaty (2021), Erin, Adegboye, and Bamigboye (2021), Nadeem, Zaman, and Saleem (2017), Odoemelam and Okafor (2018), Oyekale, Olaoye, and Nwaobia (2022), Rabi (2021), and Rafique, Malik, Waheed, and Khan (2017) have predominantly focused on examining industries or sectors in isolation, such as the industrial goods sector, financial sector, or construction/real estate sector. However, there is a discernible need to extend

the scope of investigation by integrating multiple industries. This would facilitate a comprehensive empirical analysis aligned with the study's overarching objectives.

By embracing a multi-industry perspective, the study aims to fill a significant gap in the current research landscape and provide a more holistic understanding of how corporate governance interacts with sustainability reporting quality across diverse sectors.

The broad objective of this study is to investigate the relationship between corporate governance and sustainability reporting quality of firms listed on the Nigerian Exchange Group. The specific objectives are to: to determine the effect of board size on sustainability reporting quality of listed Nigerian firms, to investigate how board independence affects the sustainability reporting quality of listed Nigerian firms, to examine the effect of board gender diversity on sustainability reporting quality of listed Nigerian firms, to ascertain how board financial expertise affects sustainability reporting quality of listed Nigerian firms and to determine the effect of audit committee size on sustainability reporting quality of listed Nigerian firms.

2.0 Literature Review

2.1. Empirical Review

2.1.1. Board Size and Sustainability Reporting Quality

Kilincarslan, Elmagrhi, and Li (2020) undertook a study to examine the influence of corporate governance structures on the practices of environmental disclosure in the Middle East and Africa (MEA) region. The research employed a panel dataset consisting of 121 publicly listed firms (excluding financial and utility companies) from 11 MEA countries, covering the period between 2010 and 2017. The study utilized various dependent variables and regression techniques, and it applied these methodologies to different sub-groups in order to enhance the reliability of the findings. The empirical outcomes of the study strongly indicated that gender diversity, board size, the presence of CEO/chairperson duality, and the size of the audit committee were positively associated with enhanced voluntary environmental disclosures among MEA firms. However, the presence of board independence exhibited a negative influence on these disclosures.

In a recent study, Rabi (2021) investigated the relationship between board of directors' characteristics and environmental disclosure in industrial businesses listed on the Amman Stock Exchange in Jordan. The primary objective of the study was to explore this link. The research conducted in this study spanned from 2014 to 2017 and focused on the analysis of 63 industrial businesses. The study included three primary variables, namely board size, board independence, and board ownership, with the control variable of business size. The research was conducted using panel data analysis, which allowed for testing the hypotheses formulated for the study. The study's findings uncovered a positive relationship between board size, board ownership, firm size, and the level of environmental disclosure.

Olayinka and Owolabi (2021) conducted an exploration into the impact of various dimensions of corporate governance on environmental sustainability reporting. The dimensions under investigation included board size, board independence, CEO duality, female directorship, and board ownership. The research utilized an ex-post facto research design and focused on a population consisting of 169 publicly quoted companies listed on the Nigerian exchange group as of December 31, 2018. From this population, a sample of 42 quoted companies was selected using a combination of stratified and purposive sampling techniques. The study encompassed a span of

10 years, ranging from 2010 to 2019. The findings of the study brought to light several significant insights. Firstly, the research demonstrated that board size, board independence, and the presence of female directors exerted positive and significant effects on environmental sustainability reporting. Conversely, the study revealed that CEO duality had a positive but insignificant effect on environmental sustainability reporting.

In their research, Haladu and Bin-Nashwan (2022) examined the influence of environmental regulatory bodies' involvement in Nigeria on the characteristics of companies' sustainability reports. The study review data from 218 companies across 13 sectors of the Nigerian exchange group. The data collection for the analyses encompassed both primary and secondary sources from the years 2015 to 2019 to gather the requisite information. The research outcomes indicated a positive yet statistically insignificant correlation between primary corporate governance attributes and sustainability reporting.

2.1.2. Board Independence and Sustainability Reporting Quality

Ezekiel , Femi, Peace and Mofoluwake (2024) examined corporate governance practices and sustainability reporting quality of listed financial institutions in Nigeria. The research adopted the ordered probit and binary logistics research design, focusing on a population of 23 financial companies that were quoted in Nigeria as of December 31, 2021. From this population, a sample of 19 financial companies was selected, utilizing a combination of stratified and purposive sampling techniques. These selected companies had a track record spanning 10 years, from 2012 to 2021. The research employed a range of analytical techniques, including descriptive analysis and multiple regression analysis. The outcome of the study yielded significant findings showing that corporate governance mechanisms have a statistically significant influence on sustainability reporting quality. .

Corvino, Doni, and Bianchi-Martini (2020) conducted a study that examined how sustainability-related matters within a company's board of directors (BDs) influenced the disclosure of environmental information following the implementation of integrated reporting (IR). The empirical investigation encompassed the period spanning from 2010, which marked the initial adoption of IR in South Africa, to 2015, representing the earliest year of the release process concerning the King Code of Governance Principles for South Africa 2009. The data for the study were sourced from the Bloomberg database. The study's findings unveiled a positive association between the presence of a business ethics policy within the board of directors and the extent of firm environmental disclosure. Conversely, the study found that the presence of CEO duality did not exert any discernible impact on this form of corporate reporting.

In the research conducted by Diamastuti, Muafi, Fitri, and Faizaty (2021), an examination was carried out into the direct and indirect effects of the government's involvement, commitment within organizations, and media exposure on the disclosure of corporate social and environmental responsibility (CSERD) by 42 state-owned enterprises (SOEs) in Indonesia. This was accomplished through the utilization of strong corporate governance as an intermediary factor. The study's participant pool consisted of 42 directors from Indonesian state-owned corporations. The outcomes revealed that the government's role, organizational commitment, and media exposure all directly influenced both effective corporate governance and the disclosure of corporate social responsibility.

Oyekale, Olaoye, and Nwaobia (2022) conducted a study to explore how corporate governance influences the disclosure of environmental sustainability by non-financial companies listed in Nigeria. The research adopted an ex-post facto research design, focusing on a population of 109 non-financial companies that were quoted in Nigeria as of December 31, 2020. From this population, a sample of 72 non-financial companies was selected, utilizing a combination of stratified and purposive sampling techniques. These selected companies had a track record spanning 9 years, from 2012 to 2020. The research employed a range of analytical techniques, including descriptive analysis and multiple regression analysis. The outcomes of the study yielded significant findings. Specifically, the study identified that factors such as Board Independence, Nomination Committee, and Sustainability Responsibility Committee had positive and statistically significant effects on the disclosure of environmental sustainability. The study ultimately concluded that corporate governance played a role in enhancing the environmental sustainability disclosure practices of non-financial companies listed in Nigeria.

2.1.3. Board Gender Diversity and Sustainability Reporting Quality

Khaireddine, Salhi, Aljabr, and Jarboui (2020) undertook an investigation with the aim of assessing the influence of board characteristics on governance, environmental, and ethical disclosure. The study considered attributes of boards including the frequency of meetings, the duality of CEO/chair roles, the size of the board, the diversity of gender, and the degree of independence from management. The research sample encompassed 82 companies that were listed on the SBF120 index in France between 2012 and 2017. The results of the study indicated that board independence, gender diversity within boards, and the frequency of board meetings all exhibited a positive and significant effect on governance, environmental, and ethical disclosure. Among these factors, the only one showing a noteworthy and favorable relationship with board size was corporate environmental disclosure.

Mawardani and Harymawan (2021) examined the extent of integrated reporting information disclosure within the annual reports of non-financial public companies listed on the Indonesia Stock Exchange (IDX) during the period from 2017 to 2018. These governance aspects encompassed the presence of an independent board, the size of the board, the diversity of genders within the board, and the type of external audit firm engaged, categorized as either a Big-4 accounting public firm or a non-Big-4 accounting public firm. To conduct the research, the authors gathered a total of 936 observations. The analysis methodology employed in the study was the Ordinary Least Square (OLS) Regression. The research's outcomes revealed several significant findings. Specifically, the study showed that companies with a greater number of independent board members and a larger board size tended to disclose a higher level of integrated reporting information in their annual reports. However, the study did not identify any substantial correlation between the diversity of genders within the board and the level of integrated reporting information disclosure.

Giron, Kazemikhasragh, Cicchiello, and Panetti (2022) undertook a study with the primary objective of examining the influential company characteristics that drive the adoption of sustainability reporting practices. The research utilized a Logit model and focused on a sample of 366 sizable companies situated in Asian and African regions. These companies had incorporated the Sustainable Development Goals (SDGs) into their sustainability reports, with the data stemming from the year 2017. The study's findings shed light on several noteworthy insights. Firstly, the results indicated that large companies located in low- and middle-income countries,

which integrated the SDGs into their sustainability reports, exhibited distinct characteristics. These included a higher market-to-book value, commonly known as Tobin's q, which is indicative of market perception, as well as a greater propensity to adopt external assurance for their sustainability reports. Furthermore, the study revealed that the presence of women and younger directors within a company's management structure was positively associated with the adoption of SDG reporting practices.

With regard to corporate sustainable reporting in the context of listed oil and gas companies in Nigeria, Onyali, Eze, and Okerekeoti (2022) conducted a study with the aim of examining the connections between the presence of foreign directors on boards, board ethnicity, and board gender diversity. Three research hypotheses served as a guide for the investigation. Ex-post facto research design was used by the researchers for this investigation. The study's sample included each of the ten oil and gas companies that were listed on the Nigerian Stock Exchange as of June 2022. Six of these companies were chosen for the research from among them based on the accessibility of their audited annual reports and accounts for the years 2010 to 2019. The researchers used the Ordinary Least Squares (OLS) simple regression to test their hypotheses, and the study's results showed that neither board gender diversity nor ethnic diversity on the board had a significant influence on corporate sustainability reporting for the listed oil and gas corporations in Nigeria.

2.1.4. Board Financial Expertise and Sustainability Reporting Quality

Umukoro, Uwuigbe, Uwuigbe, Adegboye, Ajetunmobi, and Nwaze (2019) investigated the influence that environmentally conscious, certified, and finaicial experience board members have on the publication of sustainability reports. The research was conducted from 2014 to 2016 and focused on ten Nigerian deposit money banks using static panel data regression estimators. The time period covered was from 2014 to 2016. The outcomes of the study revealed that board members with higher levels of education had an overall positive influence on the disclosure of sustainability reports. This influence persisted even after accounting for corporate administration and firm-level characteristics. Furthermore, the study indicated that both executive and non-executive directors exhibited limited experience in environmental matters, which resulted in an insignificant effect on the disclosure of sustainability reporting.

In their research, Erin, Adegboye, and Bamigboye (2021) looked at the relationship between corporate governance and the level of sustainability reporting provided by publicly traded firms in Nigeria. Specifically, they were interested in determining whether or not there was a link between the two. The approach of ordered logistic regression is used in this research project, which focuses on 120 companies that are listed on the Nigerian Exchange Group. The results of the research indicate that there may be a significant correlation between the size of a company's board of directors, the proportion of board members who are women, the financial experience of board members, the number of audit committees, and the quality of sustainability reports.

The investigation carried out by Kumo, Hamid, and Sahdan (2023) explored the intricate interconnection between environmental policies and their influence on governance and sustainable practices within Nigerian listed firms. The study employed a quantitative methodology to examine the enterprises that were assessed and ranked by the Nigerian World CSR Consensus rating system, encompassing both financial and non-financial sectors. The outcomes reveal that only a mere 26 corporations actively participated in initiatives related to corporate social responsibility (CSR). Noteworthy among these is Access Bank, which achieved an impressive rating of 99%, while UAC

Nigeria Plc garnered a significantly lower score of only 1%. Additionally, it's important to highlight that out of a total of 156 publicly traded companies in Nigeria; only 90 underwent assessment and obtained recognition from CSRHUB. This statistic underscores the minimal proportion of companies engaged in these activities.

The research conducted by Githaiga and Kosgei (2023) centered on examining the relationship between board characteristics and sustainability reporting within listed firms in East Africa. The study employed a sample of 79 firms over the years 2011 to 2020 and employed the Global Reporting Initiative framework to measure sustainability reporting. The outcomes highlighted the varying impact of different board characteristics on sustainability reporting, with board gender diversity, board financial expertise, and board independence showing positive relationships, while board size exhibited a negative association.

2.1.5. Audit Committee Size and Sustainability Reporting Quality

The research undertaken by Buallay and AlDhaen (2018) delved into the intricate relationship between Audit Committee characteristics and sustainability report disclosure within Gulf Cooperation Council countries. The study focused on listed banks over a five-year period (2013-2017) and identified the positive effects of Audit Committee size, member independence, and meeting frequency, while revealing a negative impact associated with the financial expertise of Audit Committee members on the level of sustainability report disclosure among the studied banks.

Osemene and Fagbemi (2019) did a research in which they investigated the influence of a number of parameters, some of which were board size, board independence, ownership concentration, female participation on the board, CEO duality, and the existence of an independent audit committee. Both descriptive and inferential statistics were used in the process of analyzing the secondary data that was gathered from the annual reports of the 20 firms that manufacture consumer products. The research led to the discovery of a significant relationship between board size, board independence, ownership concentration, female participation on the board, CEO duality, and the existence of an audit committee and environmental reporting.

A research was undertaken by Adegboye, Ojeka, Alabi, Alo, and Aina (2020) with the objective of comprehending the influence of audit committee characteristics on sustainability disclosure in Nigerian listed banks. The study utilized the Fixed Effect regression estimator to analyze panel data from 10 listed banks in Nigeria, spanning the years 2014 to 2016. The research outcomes provided valuable insights into the relationships under scrutiny. Specifically, the study found that certain audit committee characteristics exerted notable influences on sustainability disclosure among the examined Nigerian listed banks. Audit committee independence and gender diversity within the audit committee were identified as significantly positive factors associated with sustainability disclosure. On the contrary, the magnitude or size of the audit committee exhibited a negative and significant influence on sustainability disclosure.

In their empirical study, Ika, Nugroho, Achmad, and Widagdo (2021) conducted an examination of the influence exerted by corporate governance procedures on the phenomenon of environmental reporting. The study employed corporate governance variables such as audit committee effectiveness, board size, and ownership concentration. A sample of 306 business observations was obtained by selecting 102 manufacturing companies listed on the Indonesia

Stock Exchange (IDX) during the years 2015 and 2017. By utilizing data panel regression analysis, the findings of the study revealed a favorable relationship between audit committee performance and board size with environmental reporting. The findings of this study indicate a positive relationship between the effectiveness of the audit committee and the number of commissioners in a firm, and the level of encouragement for the inclusion of environmental information in the company's annual report.

The impact of Audit committee effectiveness (ACE), internal audit function (IAF) on sustainability reporting was investigated by Tumwebaze, Bananuka, Kaawaase, Bonareri, and Mutesasira (2022). A cross-sectional and correlational approach was taken for this study. Forty-eight Ugandan financial service providers provided suitable questionnaires for analysis. The study revealed significant and positive associations between both audit committee effectiveness and the internal audit function, and sustainability reporting practices. The study highlighted that these two aspects, ACE and IAF, were more strongly and significantly linked to economic and social indicators as compared to environmental sustainability indicators.

2.2 Theoretical Framework

2.2.1 Resource Dependency Theory (RDT)

Resource Dependency Theory (RDT), formulated by Pfeffer and Salancik during the 1970s, elucidates the manner in which organizations engage with their external surroundings to acquire vital resources such as capital, information, expertise, and legitimacy. These resources are imperative for the organization's sustenance and prosperity (Nemati, et al., 2010). RDT posits that organizations are impacted by their imperative to obtain these essential resources, which subsequently shapes their behavior. RDT, in the context of corporate governance and sustainability reporting quality, it offers valuable insights into how firms effectively handle their reliance on stakeholders, rules, and public expectations in order to sustain their operations and retain a favorable reputation (Abid, et al., 2015; Rabi, 2021). In Nigeria, organizations operating in resource-intensive sectors such as industrial goods and oil and gas must effectively handle their interactions with different stakeholders and comply with changing regulatory frameworks, as there is a growing emphasis on corporate responsibility and sustainability (Osemene & Fagbemi, 2019).

2.2.2 Stakeholder Theory

Stakeholder theory is a harmonizing rather than a contradictory body of literature which is considered as a necessary process in operationalizing corporate social responsibility reporting also known as sustainability reporting (Matten, Crane & Chapple, 2023). The theory asserts that businesses can be understood as a set of relationships among groups which have a stake in the activities of that business (Visser, Matten, Pohi & Tolhurst).

Stakeholder governance demands the recognition of the interest of the different stakeholders, who have a stake or interest in the affairs of an entity, and to preserve, protect and respect those interests, to ensure that they get the benefit to which they are entitled. Several documents have identified key stakeholders: Robert Trueblood Report (1973) USA, CBN Corporate Governance Code, the SEC Code of Corporate Governance

2.2.3 Signaling Theory

Signaling theory, applied to corporate governance, examines how firms communicate information to stakeholders through various signals, influencing their perceptions and decisions. It has three models: (1.) Spence's Signaling Model (1973): Firms signal quality to differentiate themselves. (2.) Ross's Signaling Model (1977): Managers signal private information to investors. (3.) Agency Theory: Signaling mitigates agency conflicts between managers and shareholders

3.0 Methodology

3.1 Research Design

The study employed an ex-facto research design, which facilitated the observation and collection of data on various factors without intervention. This methodology was deemed appropriate due to its capacity to make multiple observations of the same variables (firms) over extended periods, whether short or long. The population of this study encompasses the entire 30 (thirty) firms in the industrial goods sector, the oil and gas sector and the construction/real estate sector listed firms on the Nigerian Exchange Group as at December 31st, 2023 (Nigerian Exchange Group, 2023). The census sampling technique was used. The sample size is the entire population of thirty (30) firms. The study relied on secondary data obtained from the annual reports of all thirty (30) companies in the sample. The pertinent cross-sectional (panel) data was extracted from annual reports spanning the years 2013 to 2023 of these companies.

3.2 Method of Data Analysis

The ordered logistic regression model was employed to examine the influence of variables in this study in order to examine the impact of corporate governance on sustainability reporting quality of listed firms in Nigeria.

3.3 Model Specification

The study adapted the model developed by Shuaibu, Muhammad and Isah (2019) given as;

DIS = f (SIZE, IND, MEE, FSIZE) - - - - - - *(i)*

Where;
DIS= disclosure of environmental and sustainability information.
SIZE = Board size
IND = Board independence
MEE = Board meetings
FSIZE = Firm Size

The variables introduced were board gender diversity, board financial expertise and audit committee size and two control variables which are financial performance and firm size, thus given as;

SUS = f (SIZE, IND, DIV, FIN, AUD, ROE, FSIZE) - - - - - - *(ii)*

Where;
SUS = Sustainability Reporting Quality;
SIZE = Board size
IND = Board independence
DIV = Board gender diversity
FIN = Board financial expertise

AUD = Audit committee size

Control Variable

ROE = Financial performance

FSIZE = Firm Size

Equation (i) is expressed in mathematical form and cannot be estimated in this form. In other to make it compliant for a regression analysis and estimation, equation (i) is expressed linearly/econometrically as follows:

$$SUS_{it} = a_0 + a_1 SIZE_{it} + a_2 IND_{it} + a_3 DIV_{it} + a_4 FIN_{it} + a_5 AUD_{it} + a_6 ROE_{it} + a_7 FSIZE_{it} + \varepsilon_{it} \quad -- \quad (ii)$$

Where:

i = total number of sampled firms.

t = year 2013 to 2022 for each of the sampled firms.

$a_1 - a_7$ are variables coefficients to be estimated.

ε is the stochastic element

Apriori Expectation

The apriori expectations are:

$\alpha_1 - \alpha_7 > 0$.

Operationalisation and Definition of Variables

S/ No	Variables	Proxy	Measurement	Apriori Sign	Source
	Dependent				
1	Sustainability Reporting Quality	SUS	A scoring system ranging from 0 to 4: 0 denotes the absence of a sustainability report; 1 indicates the presence of a sustainability report; 2 signifies the existence of a sustainability committee; 3 is assigned when a sustainability report is assured by a non-audit firm; and 4 is assigned when a sustainability report is assured by a Big 4 audit firm.	Nil	Erin, Adegboye, and Bamigboye (2021)
	Independent				
1	Board Size	SIZE	Measured by the total number of directors serving on the board as reported in the annual reports.	β >0=+	Ezhilarasi and Kabra (2017)
2	Board Independence	IND	As a percentage of non-executive directors to the total number of directors.	β>0+	Khaireddine, Salhi, Aljabr, and Jarboui (2020)
3	Board Gender Diversity	DIV	Measured by analyzing the percentage of Female directors to the total number of directors.	β>0+	Giron, Kazemikhasragh

					, Cicchiello and Panetti (2022)
4	Board financial expertise	FIN	Expressed in binary form, the variable takes the value of 1 when a director possesses professional accounting qualifications such as ICAN or ACCA certification, holds an MBA degree, or possesses a minimum of 10 years of relevant financial experience. The variable assumes a value of 0 in cases where these criteria are not met by the director.	β>0+	Authors measurement
5	Audit committee size	AUD	Measured by the total number of members on the audit committee.	β>0+	Odoemelam and Okafor (2018)
	Control Variable				
6	Financial Performance	ROE	Net Income/Shareholders Equity	β>0+	Aifuwa (2020)
7	Firm Size	FSIZE	Total net assets of the company	β>0+	Aifuwa (2020)

Source: Author's compilation (2023).

4.0 Data Presentation, Analysis and Interpretation of Results

4.1. Data Analysis

The results of an array of statistical analyses carried out to determine the parameters are shown below. An empirical test is similarly carried out and reported in this section as well.

4.2 Descriptive Statistics

Table 4.1. Descriptive Statistics

	SUS	SIZE	IND	DIV	FIN	AUD	ROE	FSIZE
Mean	0.80	7.10	0.18	0.11	0.14	4.37	-0.04	3.39E+08
Std. Dev.	0.90	4.09	0.17	0.13	0.12	2.28	15.37	2.12E+09
Skewness	0.66	0.01	1.35	1.26	0.98	-1.03	7.77	7.683404
Kurtosis	2.19	3.01	4.408	5.49	4.46	2.52	150.16	61.38207
Jarque-Bera	30.52	0.02	117.02	157.89	75.44	56.82	273738.6	45557.56
Probability	0.00	0.99	0.00	0.00	0.00	0.00	0.00	0.000000
Sum Sq. Dev.	243.39	5002.58	9.51	5.71	4.31	1554.43	70656.41	1.35E+21
Observations	300	300	300	300	300	300	300	300

Source: Authors computation from E-views 10 output (2023).

The mean and standard deviation provide insights into the dataset's central tendencies and variability, respectively. The mean values range from 0.80 for "sustainability reporting quality" (SUS) to -0.04 for "return on equity" (ROE). On average, companies exhibit a positive sustainability reporting quality mean value of 0.80, with a high standard deviation pointing to

diverse reporting quality levels. The average board size is 7.10 with a moderate standard deviation of 4.09. Most firms have a positive proportion of women on their boards, with some variation.

4.3. Correlation Analysis

Table 4.2 presents the correlation matrices for the study's primary variables; the probabilities are shown in parenthesis.

Table 4.2. Correlation Analysis

	SUS	SIZE	IND	DIV	FIN	AUD	ROE	FSIZE
SUS	1.00							

SIZE	0.56	1.00						
	(0.00)	-----						
IND	0.56	0.41	1.00					
	(0.00)	(0.00)	-----					
DIV	0.17	0.30	0.19	1.00				
	(0.00)	(0.00)	(0.00)	-----				
FIN	0.67	0.35	0.51	0.39	1.00			
	(0.00)	(0.00)	(0.00)	(0.00)	-----			
AUD	0.57	0.73	0.37	0.45	0.48	1.00		
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	-----		
ROE	0.00	0.00	-0.01	-0.01	-0.01	0.00	1.00	
	(0.96)	(0.98)	(0.89)	(0.90)	(0.88)	(0.97)	-----	
FSIZE	0.34	0.07	-0.03	0.00	0.33	0.16	0.00	1.00
	(0.00)	(0.26)	(0.55)	(0.96)	(0.00)	(0.00)	(0.98)	-----

Probability values in ( )

Source: Authors computation from E-views 10 output (2023).

The analysis reveals several significant correlations among variables. Higher sustainability reporting quality correlates positively with larger board sizes, more board independence, greater financial expertise, larger audit committees, and, to a lesser extent, larger firm sizes. However, the relationship with board gender diversity is relatively weak. Larger board sizes associate with more board independence, greater board gender diversity, higher financial expertise, larger audit

committees, and larger firm sizes. Board independence correlates positively with board gender diversity, financial expertise, and audit committee size. Financial expertise on boards correlates with larger audit committees. Financial performance shows no meaningful correlations, while firm size correlates positively with board and audit committee sizes.

4.4. Ordered Logistic Regression

Table 4.3. Ordered Logistic Regression

Variable	**Beta Coeffcient**	**Z-statistic**	**P.value**
SIZE	0.0191	1.5109	0.1103
IND	0.1103	1.2340	0.1235
DIV	0.1232	0.1270	0.0253
FIN	0.0811	0.1543	0.1751
AUD	0.0153	2.1340	0.0010
ROE	-0.0001	-0.1234	0.2454
FSIZE	-2.9114	-0.3548	0.1822
C	-10.36	-1.50	0.13
Diagnostics			
McFadden R-squared	0.43		
LR statistic	0.49		
Prob(LR statistic)	47.4(0.00)		

Source: Authors computation (2024)

4.5 Test of Hypotheses

Hypothesis One: ***Board size has no significant effect on sustainability reporting quality of listed firms in Nigeria.***

The coefficient for Board Size (SIZE) is positive (0.0191), suggesting a potential positive relationship between board size and sustainability reporting quality. However, the associated p-value (0.1103) is not statistically significant at the 1% or 5% level. Therefore, the null hypothesis, which posits that board size has no significant effect on sustainability reporting quality, cannot be rejected. Thus, it is accepted that "board size has no significant effect on sustainability reporting quality of listed firms in Nigeria."

Hypothesis Two: Board independence has no significant effect on sustainability reporting quality of listed firms in Nigeria.

For Board Independence (IND), the positive coefficient (0.1103) is not statistically significant at any level, with a p-value of 0.1235. Consequently, the null hypothesis cannot be rejected. Thus, it is concluded that "board independence has no significant effect on sustainability reporting quality of listed firms in Nigeria."

Hypothesis Three: ***Board gender diversity has no significant effect on sustainability reporting quality of listed firms in Nigeria.***

The coefficient for Board Gender Diversity (DIV) is positive (0.1232) and statistically significant at the 5% level (p-value = 0.0253). Therefore, the null hypothesis is rejected, indicating that "board gender diversity has a significant effect on sustainability reporting quality of listed firms in Nigeria."

Hypothesis Four: ***Board financial expertise has no significant effect on sustainability reporting quality of listed firms in Nigeria.***

The coefficient for Board Financial Expertise (FIN) is positive (0.0811) but not statistically significant (p-value = 0.1751). As a result, the null hypothesis cannot be rejected, and it is stated that "board financial expertise has no significant effect on sustainability reporting quality of listed firms in Nigeria."

Hypothesis Five: Audit committee size has no significant effect on sustainability reporting quality of listed firms in Nigeria.

The relationship between Audit Committee Size (AUD) and Sustainability Reporting Quality is found to be positive and statistically significant at the 1% level (p-value = 0.0010). Therefore, the null hypothesis is rejected, indicating that "audit committee size has a significant effect on sustainability reporting quality of listed firms in Nigeria."

4.6 Discussion of Findings.

4.6.1. Board Size and Sustainability Reporting Quality

The empirical results for board size (0.0191) are positive but not statistically significant (prob. = 0.1103), suggesting that in the context of Nigerian corporate governance, board size may not have a significant effect on sustainability reporting quality. This result is in agreement with the findings of Bakar, Ghazali and Ahmad (2019), Ezhilarasi and Kabra (2017), Haladu and Bin-Nashwan (2022), Herda, Taylor and Winterbotham (2012), Kumo, Hamid, and Sahdan (2023) and Osemene and Fagbemi (2019). This implies that organizations in Nigeria may not need to focus extensively on altering board size as a strategy to enhance sustainability reporting quality instead, they could consider other factors, such as the composition of the board or the implementation of effective reporting frameworks to improve sustainability reporting quality.

4.6.2. Board Independence and Sustainability Reporting Quality

Like with board size, the coefficient for board independence (0.11) is positive, but the result is not statistically significant (Prob. = 0.1235). This implies that, based on the data, there may not be a significant relationship between board independence and sustainability reporting quality in Nigerian listed firms. However, it is important to note that this result may be influenced by other factors not considered in the analysis. The findings of Buallay and AlDhaen (2018), Ezhilarasi and

Kabra (2017), Githaiga and Kosgei (2023), Ofoegbu, Odoemelam, and Okafor (2018) and Osemene and Fagbemi (2019) are seen to be related to the findings of this study.

4.6.3. Board Gender Diversity and Sustainability Reporting Quality

The results related to board gender diversity (0.1232) is positive and statistically significant (Prob. = 0.0253), suggesting that the gender diversity of the board may significantly impact "sustainability reporting quality in Nigerian listed firms". The result of this study defers from the findings of Bakar, Ghazali and Ahmad (2019) and Githaiga and Kosgei (2023), but similar to that of Kilincarslan, Elmagrhi and Li (2020) and Mawardani and Harymawan (2021

4.6.4. Board Financial Expertise and Sustainability Reporting Quality

With respect to board financial expertise, results revealed a positive (0.0811) but statistically insignificant (p-value = 0.1751) relationship, indicating that having financial expertise on the board may not significantly influence sustainability reporting quality. The absence of statistical significance does not negate the potential importance of financial expertise on the board. The findings of this study are similar to that of Erin, Adegboye, and Bamigboye (2021), Githaiga and Kosgei (2023), Haladu and Bin-Nashwan (2022), Kumo, Hamid, and Sahdan (2023) and Oyekale, Olaoye and Nwaobia (2022).

4.6.5. Audit Committee Size and Sustainability Reporting Quality

Lastly, audit committee size revealed a positive and statistically significant relationship (p-value = 0.0010) with sustainability reporting quality in Nigerian listed firms. In practical terms, the finding suggests that, based on the data and the statistical tests conducted, there is strong evidence to conclude that larger audit committee size has a significant positive impact on sustainability reporting quality in Nigerian listed firms. The significant relationship highlights the importance of the size of the audit committee in influencing sustainability reporting practices. Larger audit committees may provide more effective oversight, accountability, and expertise in ensuring high-quality sustainability reporting. These findings are contrary to that of Kilincarslan, Elmagrhi and Li (2020), Odoemelam and Okafor (2018) and Onyali, Eze and Okerekeoti (2022), but agree with the results from Adegboye, Ojeka, Alabi, Alo and Aina (2020), Buallay and AlDhaen (2018), Ika, Nugroho, Achmad and Widagdo (2021) and Tumwebaze, Bananuka, Kaawaase, Bonareri and Mutesasira (2022).

5.0 Summary of Findings

The study investigated the relationship between corporate governance and sustainability reporting quality of listed firms in Nigeria. In general, corporate governance was observed not to have influenced the sustainability reporting quality of listed firms in Nigeria with the exemption of two variables. Specific findings are that:

1. A positive but insignificant correlation exists between Board size and sustainability reporting quality of listed firms in Nigeria.
2. There is an insignificant positive correlation between the degree of board independence and sustainability reporting quality among listed firms in Nigeria.
3. There is a significant and positive correlation between board gender diversity and sustainability reporting quality among listed firms in Nigeria.

4. The financial expertise of the board has a statistically insignificant positive correlation with sustainability reporting quality among listed firms in Nigeria.
5. Audit committee size has a significant positive relationship with the sustainability reporting quality of listed firms in Nigeria.

5.1 Conclusion and Recommendations

Based on the research findings, the study concludes that board gender diversity and audit committee size have significant positive relationship with the sustainability reporting quality of listed firms in Nigeria while other corporate governance attributes such as board size, board independence and board financial expertise have no significant association.

Based on the conclusion of the study, below are the recommendations:

i. Although board size on sustainability reporting quality was insignificant, firms should prioritize the optimization of board membership to guarantee a wide range of skills and knowledge.
ii. Board independence was positive yet insignificant but organizations may delve deeper into fostering effective decision-making that could enhance sustainability reporting quality.
iii. Board gender diversity should be encouraged due to its positive significant association with sustainability reporting quality.
iv. The financial expertise of the board has a statistically insignificant positive correlation with sustainability reporting quality among listed firms in Nigeria.
v. Audit committee size has a significant positive relationship with the sustainability reporting quality of listed firms in Nigeria.

6. Contribution to Future Research

By offering detailed insights into the relationship between corporate governance and sustainability reporting quality in the Nigerian context, this research adds to the body of current knowledge. It evaluated corporate governance and sustainability reporting quality and provided a thorough study across a variety of industries by filling the vacuum left by earlier studies which often concentrated on a specific industry.

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Dividend Policy and Firm Value of Deposit Money Banks in Nigeria: The Moderating Role of Profitability

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Abstract

Firm value reflects investors' perception of the worth of a company for informed business decisions Evidence from literature showed that factors like financial leverage, capital structure and economic uncertainties have led to the fluctuating and declining firm value which have negative effect on business decisions in listed deposit money banks . Research has shown that not many listed deposit money banks have integrated dividend policy into their operations. This paper examined the effect of dividend policy on firm value of Deposit Money Banks in Nigeria, an emerging country. Furthermore, it assessed the moderating effect of profitability considering the dividend irrelevance theory. Data were collected from 8 listed banks over 2013 – 2022. The dependent variable, firm value was proxied using Tobin q, independent variable measured as dividend per share and dividend payout while moderating variable profitability was estimated using Return on equity. Using a fixed effect panel regression techniques to investigate the proposed relationships, the baseline model demonstrated that both dividend per share had an and dividend payout had a significant and positive effect on firm value. More so, the outcome of the moderating evaluation indicated that profitability exerted a moderating effect on the relationship between dividend policy and firm value. Specifically, profitability weakened the association between dividend policy and firm value for DMBs in Nigeria. Therefore the study recommended that management should prioritize shareholder dividend payments without compromising effective exploitation of all available investment opportunities to sustain profitability.

Keywords: Dividend policy, Dividend per share, Dividend payout, Firm value, Profitability

1. Introduction

Empirical researches have predominately examined the issue of performance with a predilection towards profitability, this is hinged according to Januarsi and Sanusi (2024), on the premise that profitability is one of the most important variable visualizing company performance and the acknowledged pivotal role of profitability in the survival of most companies. However, even though profitability remains a crucial objective of every profit-oriented organization and is seen as the metric for assessing the effectiveness of management (Hada & Mihalcea, 2020), it has been argued that other cognate metrics must be given commensurate attention to ensure overall wholeness of any organisation. Such metrics are expected to capture the perceptive of all stakeholders and this includes the concept of firm value.

According to Sukesti, et al. (2019), firm value is the investor's perception of the success of a company. It describes the performance of management in carrying out the work entrusted to them by shareholders regarding the management of the company (Park & Byun cited in Suteja, et al., 2023). Firm value, which is often connected with the market performance of the firm or the price of the firm's shares, is a measure of the performance of the company which combines investment returns and risks of the company; hence it is more comprehensive than other performance measures. Moreover, the welfare of shareholders is directly related to the firm's value as high firm value indicates prosperity for shareholders (Kurniawati & Anggraini, 2023), consequently, management decisions is expected to prioritize increasing the firm's value. Additionally, as observed by Melda et al. (2022), volatility in the firm value of a bank would diminish customers and investors' trust adversely affecting its competitiveness. Thus the pursuance to achieve shareholders wealth maximization and remain competitive has obligated an intuitive inquest on the relationship between various management decisions and firm value.

Management decisions typically involve financing, investment and dividend decisions (Owusu-Ansah, et al., 2023). F*inancing decisions, according to* Murniati et al. (2019) refer to *the decisions that companies need to take regarding what proportion of equity and debt capital to have in their* capital structure, while investment decision involves choosing where to allocate financial resources in order to achieve future growth and returns. Dividend decisions, explained by Januarsi and Sanusi (2024), refer to the determination of amount of dividends paid out by the company to its shareholders and the frequency with which the dividends are paid out. Dividend payment decisions are guided by the dividend policy of the management of a company.

In the current era of globalization and increasingly competitive stock market vis a vis knowledgeable market participants, management must ensure that optimal policy decisions are taken to consistently stabilize and even improve firm value hence the recognised need for the requisite understanding of proximate and immediate linkage between management decisions and firm value.

Responsively, to provide important insights and policy implications to decision-makers, several researches have examined the effect of capital structure (See Almahadin & Oroud, 2019; Febrianti, et al., 2024; Doorasamy, 2021; Nabilatuttaqiyya & Anwar, 2024) and the effect of investment decisions (see Al-Omari et al 2024; Melina & Endri, 2024; Sherine, et al. 2022; Suteja, et al 2023)

and have provided valuable empirical evidences of the interaction between these forms of management decisions and firm value. Some studies have also been carried out on the effect of dividend policy on firm value. However, a review of these studies exposed obvious inconsistency in the results revealed even within similar ecosystems. This suggests the possible existence of a moderating variable, moreover, according to Almahadin and Oroud (2019) using moderator variable(s) in case of inconsistent results will lead to superior empirical outcomes. Therefore, with the increased relevance of profitability in the determination of firm value as identified by Nabilatuttaqiyya and Anwar (2024), Kurniawati and Anggraini (2023), Saputra and Setiawan (2023) and Al-Omari et al. (2024), this study examined the significance of profitability on the effect of dividend policy on firm value of DMBs in Nigeria.

This article is structured as follows: the introduction above provides a broad overview of the study. The second part delves into the literature review. Specifically, it provides the empirical analysis of extant literature and relevant theoretical background on dividend policy and firm value. The third section provides the data source, the research methodology, model specification, and the definition of variables. The fourth section shows the analysis, hypothesis testing and the interpretation/discussion of results while the last section focuses on the conclusion and recommendations

2. Literature Review

2.1. Conceptual Review

Firm Value

Firm value is defined by Khan and Hidayat (2022) as the fair value of the company which describes the investor's perception of a particular issuer so that the company's value is the investor's perception of the company. According to Apriliyani et al. (cited in Putri & Mulyandini, 2023), firm value is the share price on the stock market that investors are willing to pay to own a company. It is an investor's assessment of the success of a company through stock prices in the form of supply and demand (Basri & Multama, cited in Putri & Mulyandini, 2023). Typical measures of firm value include Price Earning Ratio, Earning Per Share, Price to Book Value and Tobin's Q.

Dividend Policy

According to Said (2024), dividend policy refers to the practices followed by management in making dividend decisions or the size and pattern of cash distributions to stockholders over time. It is considered as the regulation of a firm, regarding its pattern of distributing wealth to

stockholders and also as a policy used to determine the distribution steps of wealth, such as dividends to investors or preserved in the form of retained earnings (Januarsi & Sanusi, 2024). In other words, dividend policy refers to decisions about how and how much company profits are distributed as dividends to ensure the welfare of shareholders (Suharyono, cited in Putri & Mulyandini, 2023). Dividend policy is adjudged as one of the most crucial decisions becuase dividend policy serves as a signal for investors regarding the prospects of an organization and the existence of an effective and efficient management (Wahjudi, 2020). Dividend policy is typically estimated as Dividend per share and dividend payout ratio. Dividend per share is the portion of net profit distributed for each shareholding while the dividend payout ratio determines the amount of profit that can be retained in the company as a source of funding (Khan & Hidayat, 2022).

Profitability

Profitability indicates the effectiveness and efficiency in the utilisation of factors such as organisational assets and costs to generate income (Januarsi & Sanusi, 2024). The profitability ratio is a ratio that measures the overall effectiveness indicated by the size of the level of profit obtained from sales and investment (Sianturi, cited in Khan & Hidayat, 2022). It is an important measure of company's performance over a specific period (Hadian, 2019). Various measures of profitability in return on assets, return on capital employed, net interest margin and return on equity.

2.2 Theoretical Review

Dividend Irrelevant Theory

This theory, proposed by economists Franco Modigliani and Merton Miller in the 1960s, suggests that, under certain assumptions, a company's dividend policy does not affect its stock price or the overall wealth of its shareholders. The dividend irrelevance theory further argued that shareholders are indifferent between receiving dividends and capital gains (price appreciation). In other words, if a company retains earnings to reinvest in profitable projects, shareholders can sell a portion of their shares to create their own dividend income. Conversely, if a company pays dividends, shareholders can reinvest those dividends in additional shares if they wish. In both cases, shareholders can achieve their desired cash flows, making the company's dividend policy irrelevant to their wealth.

The key assumptions of this theory include:

i. Investors can buy or sell shares without transaction costs.
ii. There are no taxes on dividends or capital gains.
iii. There is no asymmetry of information between company management and shareholders.
iv. The company's investment decisions do not depend on its dividend policy.

The theory, according to Hooi et al. (2015), also assumed the existence of perfect capital market exists where the market price cannot be influenced by a single buyer or seller and that Information about the market is available to all investors with no cost.

Although many researchers have found applicability of this postulation in certain economies, Shah and Noreen (2016) observed the non-existence of a perfect and efficient market as fundamental limitation of dividend irrelevance theory. The authors also insisted that certain transaction costs and tax costs were unavoidable. Furthermore, investors sometimes take irrational investment decisions.

Summarily, according to Miller and Modigliani (cited in Nguyen, et al., 2019), there is no relationship between dividend policy and firm value but rather the value of a company depends only on the earnings that it derives from reinvesting into new opportunities.

2.3 Empirical Review

Several empirical studies have argued about the role of dividend policy in the determination of firm value. An unanswered question in this discussion is there exists an optimal dividend policy that can affect market value. In other words, the purpose of these studies was to examine whether firm value is affected positively or negatively by the dividend policy employed by management.

Sulistiono and Yusna (2019) analyzed the linkage between dividend policy and firm value on 72 firms listed in the Indonesia Stock Exchange covering 2014 to 2017 period. The multiple regression analysis revealed that the effect of dividend policy on firm value is significant. The Sobel Test utilized also affirmed the influence of dividend policy as it mediated the association between investment decisions and firm value. Focusing on Nigeria, Ejem and Ogbonna (2019) investigated the effect of dividend policy on firms' value of 24 quoted companies were selected from 10 sectors covering the period from 2012 to 2017. The study applied correlation test and panel regression to reveal an insignificant impact of dividend per share on firm value.

Employing a sample of 15 companies listed on Indonesia stock exchange during the 2011-2018 period, Fujianti et al. (2020) also examined the impact of dividend policy on firm value. Similar

to the study by Sulistiono and Yusna (2019), dividend policy was found to have a positive effect on firm value proxied as Price to book value ratio. Dividend policy was measured as Dividend payout ratio. In a related study, Hansda et al. (2020) studied the interaction between dividend policy and firm value using a dataset of 500 companies listed on the BSE for the period 2001 to 2017. The dynamic panel regression with two-step system Generalised Method of Moments (GMM) revealed the insignificance of dividend policy as a determinant of firm value. Firm value was proxied as Tobin Q and market capitalization to sales ratio while dividend policy is measured as dividend payout ratio and dividend yield. The study however observed that financial crisis impacted the relationship between dividend policy and firm value as dividend yield exerted a significant positive effect in post crisis period.

Lending credence to the position of dividend relevance theory, Dewiningrat and Baskara (2020) found that dividend policy strengthened the effect of profitability on firm value. The study had examined the firm value of property, real estate, and construction companies in the Indonesia Stock Exchange over the period from 2015 to 2017 using moderated regression analysis. Firm value was estimated as price earning ratio while dividend ratio is dividend payout ratio. Surwanti and Pamungkas (2020) examined the influence of dividend policy on the value of Southeast Asian non-financial corporate sectors using multiple regression. Consistent with the position of Modigliani Miller theory, the study found that dividend policy had insignificant effect on the firms' value in Indonesia, Singapore and Thailand. However, in the case of Malaysia and Philipina, the dividend payment showed a positive impact on the firm value. The study period covered between 2000 to 2015. Dividend policy was measured as dividend payout ratio while firm value was estimated as the log of market capitalization.

Studying the period from 2010 to 2019, Chinnaiah (2020) investigated the linkage between dividend payout and the value of a sample consisting of 39 non-financial Nifty-100 index firms. The panel data regression result showed that dividend payout had no significant influence on the value of the firm. Dewi and Abundanti (2020) examined the effect of profitability on firm value with dividend policy as a mediating variable in manufacturing companies listed on the Indonesia Stock Exchange (IDX) in the 2016-2018 period. The results from the path analysis indicated that profitability has a significant positive effect on firm value and dividend policy. More importantly,

the results revealed that dividend policy had a significant positive effect on firm value. More so, dividend policy significantly mediated the effect of profitability on firm value in manufacturing companies.

Aroh et al. (2021) investigated the determining ability of dividend policy as it relates to firm value of listed 106 non-financial companies in Nigeria using 10 years (2010 to 2019) panel data set. Dividend policy measured as dividend yield and dividend per share were significant determinants of firm value estimated as market to book ratio. Contrariwise, dividend pay-out ratio did not exert a significant effect. Deploying multiple linear regression analysis, Mujino (2021) examined the influence of selected firm specific factors on firm value of 9 manufacturing companies listed on the Indonesia stock exchange (2013-2019). While the other variables understudied (debt policy, profitability, asset structure, and company size) had significant effect, the study revealed that dividend policy measured as dividend payout ratio exerted no effect on firm value. Firm value was measured as Price to book value.

Azende and Apebo (2021) explored the linkage between dividend policy and firm value of 15 listed consumer goods companies in Nigeria for the period of 2012 to 2019. The panel data regression deployed revealed an inconsistent result across measures of dividend policy. While dividend per share had a significant positive relationship with market price per share, dividend payout ratio effect was insignificant. In a related study, Eryomin et al. (2021) examined of the influence of dividends on the market value of the company using data collected on 20 firms listed on the Moscow exchange over 2013-2019. The regression analysis revealed a positive effect of dividends when residual dividend principle is applicable. Kumshe et al. (2021) also investigated the relationship between dividend policy and firm value of DMBs in Nigeria over the period from 1997 to 2021. The regression model estimated indicated that dividend payout ratio has a negative effect on firm value as it lowered the equity value of banks' stocks.

In an attempt to explain the inconsistencies in the relationship between profitability and firm value, Akhmadi and Januarsi (2021) examined the intervening role of dividend policy utilizing a unique data set of sustainable and responsible investment (SRI)-KEHATI-listed firms on the Indonesian capital market. The result of the SLS analysis on data covering 2010 to 2019 revealed the moderating effect of dividend policy within the profitability-firm value nexus. The authors used

the market stock price to estimate firm value and measured the dividend policy using the dividend payout ratio. Furthermore, Bon and Hartoko (2022) explored the effect of dividend pay-out ratio, investment decisions, leverage, profitability, and firm size on the price to book value of firms within the context of 30 manufacturing companies listed on the Indonesian stock exchange (2015-2019). Similar to firm size and investment decisions, the results from the panel data regression showed that dividend policy did not influence firm value.

Bataha et al. (2023) examined the effect of dividend payout ratio on the Price to book value of energy sector companies listed on Indonesia stock exchange for the 2017– 2021 period. The sample of 30 companies were analysed using multiple linear regression and found a considerable positive impact of dividend policy on firm value. Putri and Mulyandini (2023) explored the interaction between dividend policy, profitability and firm value in manufacturing companies in the consumer goods industry sector listed on the Indonesia stock exchange in 2017-2021. The multiple linear regression analysis indicated that dividend policy measured as dividend payout ratio had a significant negative effect on firm value estimated as price to book value.

Arumona et al. (2024) studied the effect of capital structure and dividend policy on firm value of 70 listed non-financial firms in Nigeria (2011 to 2022) using panel multiple regression technique and found that dividend per share had a significant effect on firm value. Contrariwise, in a similar study, Nurhidayah et al. (2024) found no evidence of an impact of dividend policy on firm value. The study had investigated the impact of capital structure, profitability, company size, and dividend policy on firm value covering the financial data of 85 Indonesian property and real estate companies listed on the Indonesia stock exchange from 2019 to 2023 using MRA analysis, and conventional assumption tests.

Demonstrating a positive and significant association between dividend policy and firm value of 111 firms listed in the financial sector in Turkey, an emerging country, Abdullah et al. (2025) examined the moderating effect of IFRS adoption and the abolishment of mandatory dividend payment policy while considering the Lintner model of dividend smoothing. The work covered 1995 to 2017 using various multivariate regression techniques. In a related study, Njoku and Lee (2025) also examined the association between debt capital and dividend policy and their effect on firm value focusing on companies listed on the Korea composite stock price index. The OLS, 2-

SLS, and GMM showed that while debt and dividend policies independently reduced firm value estimated as Tobin Q, their interaction produced a synergistic effect that increased firm value.

3. Methodology

The study adopted the ex-post facto research design using balanced panel data. The secondary balanced panel data employed was sourced from the publications of the annual reports of the selected banks for the study period and from NGX reports for the period 2013 to 2022. The population of the study covers nineteen Deposit Money Banks quoted on the NGX as at 31st December 2022. Eight DMBs banks were selected as sample size. Convenience sampling technique was adopted to select the most capitalized DMBs whose financial statements were consistently available throughout the study period. This includes Zenith Bank PLC, First Bank of Nigeria PLC, Access Bank PLC, Guaranty Trust Bank PLC, United Bank of Africa PLC, First City Monument Bank PLC, Stanbic IBTC Bank PLC and Sterling Bank PLC.

The panel regression estimation method was utilized to examine the effect of dividend policy on firm value of DMBs in Nigeria and the moderating model.

Table 1. Description of Variables

Type	Variables	Proxies
Dependent	Firm Value	Tobin Q
Explanatory	Dividend Policy	Dividend per share & Dividend Payout
Moderating	Profitability	Return on Equity
Control	Firm Size	Log of Total Assets

Model Specification

Using Tobin q as the measure of firm value, the baseline model is specified thus

$$TQ_{it} = \alpha + \beta_1 DPS_{it} + \beta_2 DPR_{it} + \beta_3 FS_{it} + \varepsilon_{it} \quad \text{..... (1)}$$

Building on the baseline model, the moderating effects of profitability in the linkage between dividend policy and firm value was investigated by introducing interaction terms in the model. Thus, our empirical model takes the following adjusted form:

$$TQ_{it} = \alpha + \beta_1 DPS_{it} + \beta_2 DPR_{it} + \beta_3 FS_{it} + \beta_4 DPS_ROE_{it} + \beta_5 DPR_ROE_{it} + \varepsilon_{it} \quad \text{.....(2)}$$

Where:

TQ = Tobin Q

DPS = Dividend Per Share

DPR = Dividend Pay-out Ratio

FS = Firm Size measured as Natural Log of Total Assets

ROE = Firm Profitability measured as ROE

α = *Constant term*

$\beta_1, \beta_2, \beta_3, \beta_4$ *and* β_5 = *Coefficients of variables to be estimated*

ε = *Error Term*

t = represents the time periods of the panel data

i = represents the individual-specific variables of companies of the panel data

Hypothesis 1: Dividend policy has no significant effect on firm value of DMBs in Nigeria

Hypothesis 2: Profitability does not significantly moderate the effect of dividend policy on firm value of DMBs in Nigeria.

4. Data Analysis and Results

Table 2. Descriptive statistics of the variables

Variable	Mean	Maximum	Minimum	Std. Dev.	Skewness	Kurtosis	Observations
TQ	0.823750	1.330000	0.630000	0.123025	1.941682	8.352930	80
DPS	1.062750	4.090000	0.000000	1.085698	0.990425	2.730366	80
DPR	33.31175	80.48000	0.000000	17.69251	0.283952	2.833232	80
TOTAL ASSETS	3.25E+09	1.25E+10	12285629	2.92E+09	1.138760	3.848345	80
ROE	16.55250	32.08000	0.530000	6.781789	-0.00871	2.637053	80

Source: E-views output

Table 2 reports the descriptive statistics of the variables. The minimum value of DPS and DPR revealed that non-payment of dividend occurred within study period. Based on their individual standard deviation, it can be noted that all variables excluding DPR, indicated low volatility in values.

Table 3 -The correlation matrix of the variables.

	TQ	DPS	DPR	FS	ROE
TQ	0.014946				
	1.000000				

DPS	0.043442	1.164005			
	0.329361	1.000000			
	0.0029	-----			
DPR	1.006130	8.272314	309.1121		
	0.468095	0.436106	1.000000		
	0.0000	0.0001	-----		
FS	-0.034681	0.523823	3.161295	2.383382	
	-0.183750	0.314492	0.116469	1.000000	
	0.1028	0.0045	0.3036	-----	
ROE	0.276757	4.478191	24.54415	2.422984	45.41775
	0.335911	0.615903	0.207146	0.232885	1.000000
	0.0023	0.0000	0.0652	0.0376	-----

Source: Eviews Output

The correlation coefficients of the empirical variables are reported in Table 3. The correlation coefficients between Tobin's Q and DPS, Tobin's Q and DPR, and Tobin's Q and ROE are 0.329361, 0.468095, and 0.335911, respectively. The positive values of the coefficients indicate a positive relationship between dividend policy and firm value suggesting that higher values of dividend per share and dividend payout can bring a positive effect on firm value. The range of the correlation coefficients also reveals the absence of multicollinearity within the model.

There are a number of estimation methods with panel data (pooled, fixed effects or random effects). However, the hausman test indicated that the fixed-effects estimation was the most efficient method for this study.

Table 4. Correlated Random Effects - Hausman Test

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	15.265181	3	0.0504

Source: Eviews Output

Hypothesis 1: Dividend policy has no significant effect on firm value of DMBs in Nigeria

Table 5. Baseline Model Regression Result

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	1.005788	0.220313	4.565269	0.0000
DPS	-0.037607	0.020975	-1.792903	0.0780
DPR	0.003207	0.000680	4.718711	0.0000
FS	-0.011742	0.010608	-1.106895	0.2728
Effects Specification				

Root MSE	0.065252	R-squared	0.715118
Mean dependent var	0.823750	Adjusted R-squared	0.624906
S.D. dependent var	0.123025	S.E. of regression	0.075347
Akaike info criterion	-2.121120	Sum squared resid	0.340626
Schwarz criterion	-1.525613	Log likelihood	104.8448
Hannan-Quinn criter.	-1.882364	F-statistic	7.927039
Durbin-Watson stat	1.731384	Prob(F-statistic)	0.000000

Source: Eviews Output

TQ = 1.005788 - -0.037607DPS + 0.003207DPR - 0.011742FS

Table 5 displays the regression results of the effect of measures of dividend policy on corporate firm value. The coefficients of DPS and DPR on Tobin's Q, are -0.037607 and 0.003207, respectively, but only DPR is significant at 5%. DPS is however significant at 10%.

The explanatory power of the model as indicated by the value of R-square is 72% revealing a strong relationship between dividend policy and firm value indicating that the firms dividend policy are useful in determining firms' value. The adjusted R^2 of 62.49% represents the composition of dividend policy in firm value while the balance of 37.51%represents factors not considered in this study.

Decision: At a level of significance of 0.05, the F-statistics is 7.927 while the p-value of the F-statistics is 0.000 which is less than 0.05 adopted level of siginificance. Therefore the null hypothesis was rejected which implied that dividend policy had significant effect on firm value.

Hypothesis 2: Profitability does not significantly moderate the effect of dividend policy on firm value of DMBs in Nigeria.

Table 6. The Moderation Model

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.981236	0.213924	4.586835	0.0000
DPS	0.044771	0.048781	0.917801	0.3625
DPR	-9.23E-05	0.001277	-0.072279	0.9426
FS	-0.011458	0.010384	-1.103439	0.2744
DPS_ROE	-0.004431	0.002355	-1.881551	0.0649
DPR_ROE	0.000241	8.12E-05	2.964882	0.0044
	Effects Specification			
Root MSE	0.060738	R-squared		0.753169

Mean dependent var	0.823750	Adjusted R-squared	0.663800
S.D. dependent var	0.123025	S.E. of regression	0.071333
Akaike info criterion	-2.214491	Sum squared resid	0.295129
Schwarz criterion	-1.559434	Log likelihood	110.5796
Hannan-Quinn criter.	-1.951860	F-statistic	8.427564
Durbin-Watson stat	1.821025	Prob(F-statistic)	0.000000

Soure: Eviews Output

TQ = 0.981236 + 0.044771DPS - 9.23E-05DPR - 0.011458FS - 0.004431DPS_ROE + 0.000241DPR_ROE

Table 6 shows that after the introduction of the interaction term, the effect of DPS and DPR on firm value became insignificant while the the coefficients of the interaction variables were both significant at 10%. The results revealed that firm profitability measured as ROE is significant in determining the relationship between dividend policy and firm value of deposit money banks in Nigeria. This indicates that firm performance moderates the positive effect of DPR and the adverse impact of DPS. Specifically, firm's profitability weakens the interaction between dividend policy and firm value.

The f-statistics p-value is significant showing the robustness of specified model while the Durbin-Watson stat of 1.821025 clearly indicates the absence of auto correlation in the model.

The adjusted R^2 is 66.38% which shows the variation of dividend policy moderated by firm profitability is 66.38% while the balance of 33.62% represents factors not considered in this study.

Decision: At a level of significance 0.05,the F-statistics is 8.4275 while the p-value of the F-statistics is 0.000 which is less than 0.05 adopted level of significance.Therefore the study rejected the null hypotheses which implied that firm profitability significantly moderate the effect of dividend policy on firm value of listed deposit money banks in Nigeria.

Even though, the baseline model regression result revealed that dividend policy exerted a significant effect on firm value of DMBs in Nigeria, a slight variation in the magnitude of influence of dividend policy measures is noticeable. Similar to the studies by Ejem and Ogbonna (2019) and Njoku and Lee (2025), DPS had an insignificant effect @ a significance level of 0.05. This finding

is contrary to the significant influence found by Aroh et al. (2021), Arumona et al (2024) and Azende and Apebo (2021).

With regards to DPR, the result is consistent with the results obtained by Fujianti et al. (2020), Dewiningrat and Baskara (2020), Kumshe et al. (2021), Akhmadi and Januarsi (2021), Bataha et al. (2023) and Putri and Mulyandini (2023). These studies had revealed a significant and positive relationship between DPR and firm value. It however differs from the findings by Hansda et al. (2020), Chinnaiah (2020), Mujino (2021) and Bon and Hartoko (2022) of an insignificant impact.

The interaction variable, DPR_ROE has a significance of less than 0.05 which can be interpreted that profitability moderates the relationship between the predictor variable and the dependent variable. So it can be concluded that profitability influences the effect of dividend payout ratio on firm value of DMBs in Nigeria. Conversely, the interaction variable of dividend per share (DPR_ROE) has a significance greater than 0.05 indicating that profitability does not moderate the effect of DPS on firm value.

5. Conclusion and Recommendations

5.1 Conclusion:

Firm value is an estimation of shareholders expectation of the current performance and the future prospects of the firm. It is the value of the company as investors' perceptions of the level of success of a company and is typically expected to be reflected in the company's share price. Consequently, companies have needed to prioritize the creation of value for the shareholders in an attempt to sustain share prices. This focus raises concerns about the determinants of firm values in various business sectors. Therefore, this study examined the ability of dividend policy to determine firm value of listed DMBs in Nigeria and the moderating effect of profitability.

Based on the findings, the study concluded that dividend policy has a significant effect on firm value of listed DMBs in Nigeria. This alludes to the existence of the relevance of dividend policy decisions in the perception of shareholders of the banks understudied. Specifically, the value of the firm is hinged on the perceived insights into dividend sustainability and financial health provided by dividend payout ratio. However, this acknowledged perception is significantly affected by the profitability of the firms as the study revealed the existence of a moderating effect of profitability in the interaction.

Furthermore, the result of the study invalidated the claims of the irrelevance theory of Miller and Modigliani (1961) with regards to the examined context.

5.2 Recommendations:

Based on the empirical evidence of the relevance of dividend payout ratio and profitability, the study recommends that management prioritize effective exploitation of available investment opportunities unto sustained profitability. This will boost and sustain investors confidence. Furthermore, management dividend decisions must focus on optimal apportionment between amount paid out as dividend payment and the portion of earnings retained.

6. **Contribution to Future Research:**

In recognition of its strategic position within the financial sector, the research focused on deposit money banks, however with the increased focus on industrialisation, future studies can consider the firm value of various categories of listed manufacturing firms in Nigeria.

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AUDIT QUALITY AND TAX AGGRESSIVENESS IN LISTED TELECOMMUNICATIONS AND OIL AND GAS SECTORS IN NIGERIA

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ABSTRACT
This study investigates the effect of audit quality on tax aggressiveness among listed telecommunication and oil and gas firms in Nigeria for the period 2019 to 2023. Audit quality was assessed through three proxies: audit firm size, audit fees, and audit tenure while Tax aggressiveness was measured using the Cash Effective Tax Rate (CETR). The population of the study was fourteen (14) listed telecommunication and oil and gas firms in Nigeria but after data filtering thirteen (13) firms were used. Analysis was carried out using descriptive and inferential statistics. Descriptive and correlation analyses were conducted prior to regression testing. The results indicate a statistically significant negative relationship between audit firm size and tax aggressiveness, while audit fees and audit tenure showed no significant effects. Based on these findings, the study recommends that regulators and corporate boards encourage the engagement of large, reputable audit firms to reduce tax aggressiveness. In addition, it proposes the development of audit fee benchmarking policies tied to audit performance.

Keywords: Audit Quality, Audit Firm Size, Audit Fees, and Audit Tenure, Cash Effective Tax Rate

1.0 INTRODU CTION

Tax aggressiveness has become an increasingly scrutinized area of corporate behaviour, particularly in the context of evolving fiscal regulation and stakeholder expectations. It broadly refers to strategies employed by firms to minimize tax liabilities through complex, often opaque methods that may comply with the letter of the law but violate its spirit (Bougacha & Guedrib, 2024). Firms operating in high-risk industries or those under close stakeholder scrutiny are particularly vulnerable to the consequences of aggressive tax behaviour, which can include tax penalties, audits, and diminished investor trust (Khan & Nuryanah, 2023). Amid heightened awareness of corporate tax conduct, audit quality has gained prominence as a mechanism for mitigating tax-related opportunism. High audit quality enhances the reliability of financial reporting and serves as a control mechanism that reduces the likelihood of tax-related misstatements or manipulations (Adegbite, 2025). Audit quality itself is a multidimensional construct, often assessed through proxies such as audit firm size, audit tenure, and audit fees. Larger audit firms, particularly those classified under the Big 4, are generally presumed to possess superior technical expertise, stronger regulatory adherence, and a greater incentive to protect their reputational capital, all of which are associated with more rigorous scrutiny of client tax behaviour (Sani, Kaoje, & Musa, 2022). Audit fees, when interpreted through the lens of auditor-client engagement dynamics, reflect both the complexity of the audit and the perceived risks involved (Ahmad & Muslim, 2023). Audit tenure, meanwhile, presents a dual influence: while long-term auditor familiarity with a client can improve efficiency and accuracy, it may also erode auditor independence and increase tolerance for risky tax positions. These dimensions including audit firm

size, audit fees, and audit tenure are therefore critical in understanding the audit–tax nexus and their empirical outcomes.

The relationship between audit quality and tax aggressiveness has received considerable scholarly attention, yet empirical findings remain inconclusive and context-dependent. Existing literature (Klassen, Lisowsky, and Mescall 2016; Iazzi, Vacca, Maizza, and Schiavone 2023; Shafiq, Selamat, Nor, and Noordin 2024; Mättö, Niskanen, and Ojala 2023) reports mixed outcomes on how various audit quality indicators such as audit firm size, audit fees, and audit tenure influence firms' tax planning behaviour. These contradictory findings underscore the complexity of the audit–tax relationship and highlight the need for further investigation, particularly within institutional frameworks and industrial sectors that are distinct from those already extensively studied. Another major deficiency in the current body of literature is the period gap, which arises from the short and often inconsistent time frames used in previous studies. To address this gap, the present study employs a five-year data set covering 2019 to 2023. This period encompasses significant developments in audit and tax compliance standards in Nigeria, allowing for a more comprehensive understanding of the long-term interactions between audit mechanisms and corporate tax behaviour. Another significant gap identified in previous extant literature is the sectoral gap. Most empirical studies have concentrated on financial institutions or examined a broad range of firms without disaggregating sectoral characteristics. This omission is critical, given that non-financial firms, particularly in sectors like telecommunications and oil and gas, exhibit unique regulatory, operational, and fiscal characteristics that may influence their interaction with audit quality. This study explicitly addresses the sectoral gap by focusing on listed telecommunication and oil and gas firms in Nigeria. In addition to the period and sectoral gaps, other methodological and conceptual limitations persist. To reduce this inconstancy, this study incorporates leverage as control variable. There is inconsistency in the proxies used to measure tax aggressiveness. Most studies adopt Book-Tax Differences or nominal Effective Tax Rates, which may not accurately reflect firms' actual tax payments. This research utilizes the Cash Effective Tax Rate (CETR), which captures the real taxes paid relative to pre-tax income. Lastly, while conventional estimation methods such as OLS and GLS dominate the previous literatures, they often inadequately address key panel data issues. This study therefore applies the Panel EGLS model with PCSE corrections to ensure greater reliability and efficiency in the presence of cross-sectional and temporal dependencies, contributing both methodological advancement and empirical clarity to the discourse on audit quality and tax aggressiveness. To effectively close these identified gaps, the study therefore states the following research hypothesis:

H_1: Audit firm size has no significant effect on tax aggressiveness.

H_2: Audit fees have no significant effect on tax aggressiveness.

H_3: Audit tenure has no significant effect on tax aggressiveness.

2.0 LITERATURE REVIEW

2.1 Tax Aggressiveness

According to Khan & Nuryanah, (2023) tax aggressiveness emerges as a strategic approach where taxpayers legally minimize their tax liabilities by leveraging government-provided incentives and planning mechanisms. These strategies, often facilitated by auditors or tax consultants, may span a spectrum from entirely legal to borderline or potentially illegal practices. Tax aggressiveness encompasses a variety of concepts such as tax avoidance, tax sheltering, and strategic tax planning, all aimed at reducing tax burdens and maximizing shareholder wealth. Issah and Rodrigues (2021) describe tax aggressiveness as a set of deliberate managerial actions and financial strategies aimed at minimizing tax liability using legal exemptions, deductions, and incentives. Ultimately, tax

aggressiveness in this study is defined as the legal deployment of tax strategies to transfer wealth from the public domain to corporate shareholders, within the parameters of existing legislation (Guzman & Guzman, 2024).

2.1.1 Cash Effective Tax Rate (ETR)

The cash effective tax rate (Cash ETR) is a measure of the actual taxes a company pays relative to its pre-tax income, focusing on cash flows rather than accounting accruals. It's a key metric for assessing tax aggressiveness and financial performance. Cash ETR, ETR Differential, and ratios involving tax expense or paid taxes over operating cash flows further refine this assessment by providing alternative lenses into tax strategies (De Vito & Grossetti, 2024).

2.2 Audit Quality

DeAngelo (1981) defines audit quality as the market-assessed joint probability that a given auditor will both discover a breach in the client's accounting system and report the breach (Erasmus & Akani, 2021). This definition emphasizes competence (the ability to detect material misstatements) and independence (the willingness to report them truthfully). Over time, this framework has been expanded to include a variety of auditor-specific and client-specific factors, such as auditor industry specialization, audit firm size (Big 4 vs. non-Big 4), audit fees, and auditor tenure. Sulaiman (2023) further supports the view that audit quality is influenced by market mechanisms, suggesting that clients choose auditors based on expected audit effort and reputation, both of which affect the credibility of audited financial statements.

2.2.1 Audit Firm Size

Audit firm size is a widely used proxy for audit quality in the accounting literature, predicated on the assumption that larger audit firms possess greater technical expertise, more robust internal controls, and higher reputational capital compared to smaller firms (Rajgopal, Srinivasan & Zheng, 2021). According to Kharuddin, Basioudis & Al Farooque (2021) larger firms, particularly the Big 4 (Deloitte, PwC, EY, and KPMG), are considered to deliver superior audit quality due to their extensive resources, global networks, specialized staff, and greater exposure to litigation and regulatory scrutiny. Additionally, Alidarous (2024) notes that large audit firms serve as important reputational intermediaries in capital markets, especially in settings with weak investor protections. Thus, audit firm size is not merely a measure of scale but a substantive indicator of the firm's audit quality, reputation, and capacity to influence financial reporting outcomes.

2.2.2 Audit Fees

According to Wahyuni, Sueny, Wahyu and Fadewa (2024) audit fees represent the monetary compensation paid by a client to an external auditor for the provision of audit services, and they serve as both an economic signal and a potential influence on audit quality. Al-Qadasi, Baatwah, and Omer (2023) stated that higher audit fees may reflect greater audit effort, complexity of the client's operations, and engagement risk, suggesting a more thorough and resource-intensive audit process. Conversely, concerns have been raised that excessive audit fees could create an economic bond between the auditor and client, potentially impairing auditor independence and objectivity (Ahmed, Dhull & Kent, 2022). Therefore, audit fees are more than a transactional figure, they encapsulate the interplay between audit effort, engagement complexity, and independence risk, making them a vital factor in understanding variations in audit quality.

2.2.3 Audit Tenure

Audit tenure refers to the length of the audit engagement between a company and its external auditor, and it is a critical variable in the audit quality debate due to its dual implications for independence and expertise (Martani, Rahmah, Fitriany & Anggraita, 2021). On one hand, long audit tenure is believed to improve audit quality through enhanced auditor knowledge of the

client's business operations, internal controls, and industry context (Jadiyappa, Hickman, Kakani & Abidi, 2021). This accumulated knowledge allows auditors to perform more efficient and accurate audits. On the other hand, prolonged auditor-client relationships may lead to excessive familiarity, reduced professional skepticism, and compromised auditor independence, potentially undermining audit quality (Anwar, 2024). The empirical evidence on audit tenure's effect on audit quality remains mixed, with some studies suggesting a positive association (Payne & Williamson, 2021), while others indicate potential declines in auditor independence after extended engagements (Kamarudin, Wan Ismail & Ariff, 2022). As a result, audit tenure embodies a trade-off between client-specific learning benefits and the risk of diminished objectivity, both of which significantly influence audit outcomes.

2.3 Control Variables

2.3.1 Firm Leverage

Firm leverage, commonly measured as the ratio of total debt to total assets, is a critical control variable in corporate governance and financial reporting studies due to its implications for risk, agency conflicts, and financial performance (Kinyua & Ochieng, 2022). High leverage increases a firm's obligations to external creditors, thereby intensifying monitoring demands and potentially influencing managerial behaviour (Tung, 2021). From an audit perspective, firms with higher leverage face greater scrutiny from auditors and other stakeholders, as the risk of financial distress or default rises, leading to a higher probability of audit adjustments or going concern opinions (Viana Jr, Lourenço & Black, 2022).

2.4 *Summary of Empirical Review*

S/N	Author	Topic	Methodology	Findings
1.	Pratiwi, Subekti and Rahman (2019)	Corporate governance and audit quality on tax aggressiveness in Indonesian manufacturing firms.	Sixty six (66) public companies listed on the Indonesia Stock Exchange over 2016–2017. Effective tax rate and book-tax difference metrics (dependent variable) and audit firm type (independent variable).	Audit quality does not significantly affected tax aggressiveness while family ownership was found to moderate the relationship between audit quality and tax aggressiveness.
2.	Shafiq, Selamat, Nor and Noordin (2024)	The impact of audit quality on tax avoidance in Pakistan.	Panel dataset of 50 top-performing firms from 2016 to 2022 while it was analyzed using fixed effects and system GMM.	A significant inverse relationship auditor size, and tax avoidance.

3.	Mättö, Niskanen and Ojala (2023)	Auditors and bank monitoring in the tax aggressiveness of private firms in Finland	Using a unique dataset of small and medium-sized entities.	Audit quality was positively associated with tax aggressiveness while bank monitoring was also positively associated with tax aggressiveness.
4.	Adamu, Abubakar, and Muhammad (2024)	The moderating effect of audit quality on the relationship between ownership structure and tax avoidance among listed non-financial firms in Nigeria.	Three hundred and sixty thousand (360) firm-were observed from 2018 to 2022, and using robust OLS regression	Ownership structure significantly affects tax avoidance, and this relationship is notably influenced by audit quality.
5.	Madah Marzuki and Muhammad Al-Amin (2021)	Audit fees, audit quality, and board ownership on tax aggressiveness among listed companies in Thailand.	Using 215 firm-year observations from SET-100 firms during 2010–2018 and applying panel least squares regression with period fixed effects.	Higher audit fees are associated with reduced tax aggressiveness.
6.	Hendi and Sherly (2024)	The impact of auditor characteristics including audit fees on tax avoidance in Indonesia	Secondary data was used from 2018 and 2022. Panel data regression was used. Effective tax rate (ETR), and tenure, opinion, industry specialization, and audit fee.	The results showed that while audit tenure had a significant negative effect on tax avoidance, audit fees had no significant effect.
7.	Paramita and Fuad (2023)	Audit fees, audit quality, and ownership structures on tax aggressiveness in manufacturing	One hundred and thirty-two (132) firm from 2018 to 2021 were used and the study employed panel regression techniques.	Audit fees have a significant negative effect on tax aggressiveness. The study revealed that both audit quality and foreign ownership

		companies listed on the Indonesia Stock Exchange		significantly reduce tax aggressiveness.
8.	Poon, Lee, Har and Teoh (2021)	Audit characteristics, and corporate tax avoidance (CTA) in Malaysia.	Four hundred (400) firm-year observations from 2015 and 2018, and generalized least squares (GLS) estimation were used.	Audit fees, audit quality, and audit committee effectiveness significantly influence CTA, measured by cash ETR
9.	Salehi, Tarighi and Shahri (2020)	Auditor characteristics and tax avoidance in the context of an emerging economy, specifically Iranian listed companies.	Six-year period from 2011 to 2016 while regression analysis was used.	Neither auditor tenure nor industry specialization had a statistically significant relationship with tax avoidance.
10.	Lestari and Nedya (2019)	Audit quality and audit tenure in manufacturing firms listed on the Indonesia Stock.	Utilizing a panel data regression technique on a sample of 312 firms for the period 2012 and 2017	Audit size and audit fee had a significant negative impact on tax avoidance, indicating that larger and more costly audits tend to reduce aggressive tax practices.
11.	Bala, Musa and Jibril (2023)	analyzed the influence of audit tenure and investment in property, plant, and equipment (PPE) on tax avoidance within Nigeria's financial services sector	Covering a sample of 40 listed financial firms over a seven-year period (2015–2021), and applying a robust regression model,	No statistically significant relationship between audit tenure and tax avoidance

2.5 Theoretical Review

2.5.1 Legitimacy Theory

Legitimacy theory offers a compelling framework for understanding the social dimensions of corporate behaviour, particularly in areas such as tax strategy where legal compliance and societal expectations may diverge. According to Suchman (1995), legitimacy is a generalized perception that an organization's actions are desirable, proper, or appropriate within the broader system of

norms, values, and beliefs. This theory posits that firms continually seek to establish and maintain legitimacy by aligning their practices with prevailing social norms. Tax aggressiveness, while sometimes legal, may conflict with the societal expectation that corporations should contribute fairly to public revenues. Legitimacy theory suggests that firms may proactively engage high-quality auditors to signal their commitment to responsible corporate conduct. These high-quality auditors can be identified based on their size, fees, and tenure. In an era marked by increasing demands for ethical behaviour and social accountability, particularly in the wake of financial scandals and tax transparency campaigns, audit quality becomes a key component of a firm's legitimacy strategy. Sikka (2010) contends that corporate legitimacy is not only based on actual behaviour but also on how that behaviour is independently verified and perceived by external parties. When reputable auditors validate a firm's financial statements and tax disclosures, they lend credibility to the firm's claims of lawful and ethical conduct. This credibility is especially important in managing stakeholder perceptions in the face of complex and potentially controversial tax strategies. Consequently, legitimacy theory provides a nuanced understanding of the role of audit quality in shaping corporate responses to societal expectations, reinforcing the notion that auditing serves both a technical and a symbolic function in corporate governance.

2.5.2 Agency Theory

Agency theory was co-founded by economists Stephen Ross and Barry Mitnick in the mid-1970s, with their work leading to both the economic and institutional branches of the theory, respectively. Agency theory analyzes relationships where one party, the principal, delegates work to another party, the agent, who is expected to act on the principal's behalf. Agency theory explains that management's self-interest and information asymmetry can lead to tax aggressiveness, which is often mitigated by high-quality audits. Auditors' independence and competence reduce information asymmetry, ensuring managers cannot exploit legal means to reduce tax liabilities without detection. Thus, higher audit quality is associated with lower tax aggressiveness, as it provides an independent monitoring mechanism to align management actions with shareholder interests.

3.0 RESEARCH METHODOLOGY

This study adopts an ex-post facto research design to examine the effect of audit quality on tax aggressiveness among listed non-financial firms in Nigeria. Ex-post facto design is suitable for studies that investigate cause-and-effect relationships using data that already exist, without the researcher's direct manipulation of variables. The population of this study consists of a total of fourteen (14) non-financial firms, comprising 3 telecommunications firms, and 11 oil & gas firms. The list of the firms is contained in the Table below:

Table 3.1 *List of Telecommunications and Oil & Gas Firms Listed on the Nigerian Exchange Group (NGX)*

Listed Firms	**No.**	**Sector**
Airtel Africa Plc (AIRTELAFRI)	1.	Telecommunications
MTN Nigeria Communications Plc (MTNN)	2.	Telecommunications
BricLinks Africa Plc (BRICLINKS)	3.	Telecommunications
Aradel Holdings Plc (ARADEL)	1.	Oil & Gas
Capital Oil Plc (CAPOIL)	2.	Oil & Gas
Caverton Offshore Support Group Plc (CAVERTON)	3.	Oil & Gas
Conoil Plc (CONOIL)	**4.**	Oil & Gas
Eterna Plc (ETERNA)	**5.**	Oil & Gas
Japaul Gold & Ventures Plc (JAPAULGOLD)	**6.**	Oil & Gas
MRS Oil Nigeria Plc (MRS)	**7.**	Oil & Gas
Oando Plc (OANDO)	**8.**	Oil & Gas
Rak Unity Petroleum Co Plc (RAKUNITY)	**9.**	Oil & Gas

Seplat Energy Plc (SEPLAT)	**10.**	Oil & Gas
TotalEnergies Marketing Nigeria Plc (TOTAL)	**11.**	Oil & Gas

Source: Nigerian Exchange Group (NGX), 2024

The study utilized census sampling by adopting the entire population for the study. But after data filtering processes, the researcher found an incomplete data set for one (1) of the fourteen (14) companies as such the study utilized thirteen (13) listed telecommunication and oil and gas firms in Nigeria. Data was sourced from secondary sources (audited financial reports) for period 2019 to 2023. Data were analyzed using quantitative analytical approach that is, the Panel Estimated Generalized Least Squares (EGLS) regression technique with cross-section weights and Period Seemingly Unrelated Regression (SUR) standard errors and covariance (PCSE). Descriptive statistics (mean, standard deviation, minimum, and maximum values) were first computed to summarize the characteristics of the dataset. The study adopted its model from Madah Marzuki and Muhammad Al-Amin (2021) which is stated as follows.

$ETR= \beta_0 + \beta_1 AF + \beta_2 BO + \beta_3 LEV + \varepsilon$----------(i)

Where;

ETR = Effective tax rate as the measure of tax aggressiveness

β_{1-3}= represented by the coefficient of the independent variables, including audit fees (AF), Board Ownership (BO), and Leverage (LEV).

The study modified the above equation as follows.

$CETR= \beta_0 + \beta_1 AS + \beta_2 AF + \beta_3 AT + \beta_4 FLEV + \varepsilon$----------(ii)

CETR= Cash Effective Tax Rate (Measure of Tax Aggressiveness)

= coefficient of intercept term where all independent variable are zero

AS = Audit Size

AF = Audit Fees

AT = Audit Tenure

FLEV = Firm Leverage

ε = Error term, captures all other variables

Table 3.2 Operationalization and Measurement of Variables

S/N	Variables	Types of Variables	Measurement	Source	Apriori Sign
1	Tax Aggressiveness	Dependent	Cash Effective Tax Rate (CETR) = Cash Taxes Paid / Pre-tax Book Income	Poon, Lee, Har and Teoh (2021)	
2	Audit Firm Size	Independent	Dummy variable: 1 = Big 4 audit firm, 0 = otherwise	Adamu, Abubakar, and Muhammad (2024)	Negative (-)
3	Audit Fees	Independent	Natural log of audit fees	Madah Marzuki & Al-Amin (2021)	Negative (-)
4	Audit Tenure	Independent	Number of consecutive years the audit firm has audited the company	Bala, Musa and Jibril (2023)	Positive (+)

5	Firm Leverage	Control	Total debt / Total assets	Bala, Musa and Jibril (2023)

Source: Researcher's compilation (2025)

4.0 RESULTS AND DISCUSSION OF FINDINGS

Table 4.1 ***Descriptive Statistics***

	CETR	AS	AF	AT	FLEV
Mean	0.127814	0.846154	19.11456	4.230769	0.380740
Maximum	0.247500	1.000000	20.02360	9.000000	0.865900
Minimum	0.024800	0.000000	16.61480	1.000000	0.028800
Std. Dev.	0.067895	0.363609	0.812267	2.097388	0.203951
Skewness	0.176672	-1.918806	-1.470927	0.305989	0.617728
Kurtosis	1.775522	4.681818	5.032740	2.444849	2.843421
Jarque-Bera	4.398867	47.54692	34.63022	1.849006	4.200271
Probability	0.110866	0.000000	0.000000	0.396729	0.122440

CETR = Cash Effective Tax Rate, measure of tax aggressiveness; AS = Audit Firm Size; AF = Audit Fees (measured using the natural logarithm of audit fees); AT = Audit Tenure; FLEV = Firm Leverage

Source: Researcher's compilation (2025)

The descriptive statistics presented in Table 4.1 offer insight into the distribution, central tendency, and variability of the study variables, including Cash Effective Tax Rate (CETR), Audit Firm Size (AS), Audit Fees (AF), Audit Tenure (AT), and Firm Leverage (FLEV), over the period 2019 to 2023 for thirteen (13) telecommunications and oil and gas firms in Nigeria. The mean CETR, a proxy for tax aggressiveness, stands at 0.128, indicating that on average, firms pay approximately 12.8% of their cash earnings as tax. The relatively low mean CETR implies a moderate level of tax aggressiveness. With a standard deviation of 0.068, CETR shows moadest variability, suggesting that most firms exhibit similar tax behaviour. The positive skewness (0.177) and kurtosis (1.776) indicate a distribution that is slightly right-tailed and platykurtic, respectively, meaning that most firms exhibit CETRs close to the mean, with few extreme values. The Jarque-Bera probability of 0.111 exceeds the 5% significance level, suggesting that CETR is approximately normally distributed. In contrast, Audit Firm Size (AS), a binary variable indicating whether a firm is audited by a Big 4 auditor, has a mean of 0.846, signifying that approximately 85% of firms employed Big 4 audit firms. The standard deviation of 0.364 reflects its binary nature. The variable is highly negatively skewed (-1.919) and leptokurtic (kurtosis = 4.682), indicating a heavy concentration around the higher end of the distribution (Big 4 firms). The Jarque-Bera statistic is significant ($p < 0.01$), confirming non-normality, as expected for a dichotomous variable. Audit Fees (AF), measured as the natural logarithm of audit fees, has a mean of 19.115, a standard deviation of 0.812, and a range from 16.615 to 20.024. The negative skewness (-1.471) indicates that most firms incur higher audit fees, while the kurtosis of 5.033 implies a leptokurtic distribution with more extreme values. The significant Jarque-Bera statistic ($p < 0.01$) confirms a departure from normality, likely due to the disparity in firm sizes and complexity of operations within the firms. Audit Tenure (AT) records an average of 4.23 years, with values ranging from 1 to 9 years, and a standard deviation of 2.097.

Table 4.2 ***Correlation Matrix and Test for Multicolinearity (VIF)***

	CETR	AS	AF	AT	FLEV	VIF
CETR	1.000000					
AS	-0.220659	1.000000				1.027693
AF	-0.204850	-0.030263	1.000000			1.037424
AT	-0.071574	-0.157603	-0.093310	1.000000		1.050837
FLEV	-0.051279	0.022460	0.170243	-0.136495	1.000000	1.045723

Source: Researcher's compilation (2025)

Table 4.2 presents the Pearson correlation matrix alongside Variance Inflation Factors (VIF) to assess the interrelationships among the independent variables and to test for multicollinearity within the regression model. The correlations between the dependent variable, CETR (a proxy for tax aggressiveness), and the audit quality variables are generally negative, albeit weak. Notably, Audit Size (AF) and Audit Fees (AF) show negative correlations with CETR at -0.221 and -0.205 respectively, suggesting that higher audit size and greater audit fees may be associated with lower tax aggressiveness. However, these relationships are not statistically significant at conventional thresholds, implying limited direct influence in bivariate terms. Audit Tenure (AT) and AF also exhibit weak inter-correlations, none of which exceed the absolute value of 0.20, suggesting a low likelihood of strong linear association among them.

The VIF values, all of which fall well below the critical threshold of 10 (ranging from 1.028 to 1.051), further confirm the absence of multicollinearity in the model.

Diagnostic Tests

Table 4.3 ***Cross Section Dependence Test***

Test	Statistic	d.f.	Prob.
Breusch-Pagan LM	87.24091	78	0.2220
Pesaran scaled LM	0.739865		0.4594
Pesaran CD	0.763797		0.4450

Source: Researcher's compilation (2025)

Table 4.3 presents the results of cross-sectional dependence tests (Breusch-Pagan LM, Pesaran scaled LM, and Pesaran CD) all of which yield statistically insignificant p-values (0.2220, 0.4594, and 0.4450, respectively). These findings indicate the absence of significant cross-sectional dependence among the residuals of the panel dataset, suggesting that unobserved common shocks or spillover effects do not substantially influence the sampled firms. Consequently, the residuals from different cross-sectional units (firms) are largely independent, fulfilling one of the key assumptions for reliable panel data estimation.

Table 4.4 ***Serial, Heteroskedasticity, and Specification Tests***

Breusch-Godfrey Serial Correlation LM Test:			
F-statistic	0.073349	Prob. F(2,58)	0.9294
Obs*R-squared	0.163989	Prob. Chi-Square(2)	0.9213
Heteroskedasticity Test: Breusch-Pagan-Godfrey			
F-statistic	0.536310	Prob. F(4,60)	0.7096
Obs*R-squared	2.243787	Prob. Chi-Square(4)	0.6910

Ramsey RESET Test: Specification: CETR AS AF AT FLEV			
t-statistic	0.685968	59	0.4954
F-statistic	0.470551	(1, 59)	0.4954
Likelihood ratio	0.516348	1	0.4724

Source: Researcher's compilation (2025)

Table 4.4 presents the results of key diagnostic tests (serial correlation, heteroskedasticity, and model specification) which collectively validate the statistical robustness of the panel regression model. The Breusch-Godfrey Serial Correlation LM Test yields an F-statistic of 0.0733 with a p-value of 0.9294, and an Obs*R-squared value of 0.1640 with a p-value of 0.9213. These high p-values indicate that the null hypothesis of no serial correlation cannot be rejected, confirming that the residuals are not autocorrelated across time. This is an important assumption for ensuring unbiased and efficient estimates in panel data models. Similarly, the Breusch-Pagan-Godfrey heteroskedasticity test returns an F-statistic of 0.5363 (p = 0.7096) and an Obs*R-squared value of 2.2438 (p = 0.6910), both of which are statistically insignificant. These results suggest that the variance of the error terms is constant across observations, i.e., there is no evidence of heteroskedasticity. The absence of heteroskedasticity strengthens the reliability of the coefficient estimates and supports the assumption of homoscedasticity in the panel data structure.

The Ramsey RESET test assesses the adequacy of the model's functional form. With a t-statistic of 0.686 and an F-statistic of 0.471 (p = 0.4954), the test fails to reject the null hypothesis that the model is correctly specified. Additionally, the likelihood ratio test confirms this finding with a p-value of 0.4724.

Table 4.5: ***Multivariate Analysis***

Dependent Variable: CETR
Method: Panel EGLS (Cross-section weights)
Period SUR (PCSE) standard errors & covariance (d.f. corrected)

Variable	Coefficient	Std. Error	z-Statistic	Prob.
CETR (-1)	0.034880	0.124034	0.281215	0.7798
AS	-0.039284	0.016040	-2.449073	0.0182
AF	0.009343	0.010953	0.852959	0.3981
AT	0.001362	0.003821	0.356522	0.7231
FLEV (Control)	-0.144534	0.032662	-4.425207	0.0001
R-squared: 0.518098				
Adjusted R-squared: 0.490500				
F-statistic: 5.593320				
Prob(F-statistic): 0.000416				
Durbin-Watson stat: 2.395079				

Source: Researcher's compilation (2025)

Table 4.5 presents the results of the multivariate regression analysis examining the impact of audit quality variables on tax aggressiveness, proxied by the Cash Effective Tax Rate (CETR), using the Panel EGLS method with cross-section weights and Period SUR (PCSE) standard errors. The results show that Audit Firm Size (AS) has a statistically significant negative effect on CETR (β = -0.0393, p = 0.0182), implying that firms audited by larger (likely Big 4) audit firms exhibit higher tax aggressiveness. Other audit quality indicators Audit Fees (AF) and Audit Tenure (AT) are not statistically significant, with p-values of 0.3981 and 0.7231 respectively, suggesting they

do not exert a discernible influence on tax aggressiveness within the sampled firms over the study period.

The control variable, Firm Leverage (FLEV), shows a highly significant negative relationship with CETR ($\beta = -0.1445$, $p < 0.001$), indicating that more highly leveraged firms tend to be more tax aggressive, consistent with the interest tax shield hypothesis.

DISCUSSION OF FINDINGS

The regression results indicate a statistically significant negative relationship between audit firm size and tax aggressiveness ($\beta = -0.039$, $p = 0.0182$), implying that firms audited by larger, typically Big Four audit firms, tend to engage in tax aggressiveness. This finding supports the conventional perspective that larger audit firms, due to their reputation, international networks, and regulatory scrutiny, are more likely to enforce rigorous compliance (Shafiq, Selamat, Nor & Noordin, 2024; Klassen, Lisowsky & Mescall, 2016). In the Nigerian setting, our findings affirm that Big Four auditors are still perceived as more credible and effective in promoting tax compliance among non-financial firms, supporting their function as external governance mechanisms. The analysis reveals an insignificant relationship between audit fees and tax aggressiveness ($\beta = 0.0093$, $p = 0.3981$), indicating that higher audit compensation does not necessarily translate into greater auditor scrutiny or reduced aggressive tax strategies among Nigerian firms. This finding aligns with Hendi and Sherly (2024), who similarly found no significant effect of audit fees on tax avoidance in Indonesian firms, attributing the lack of influence to market structures and the nature of auditor-client interactions. Conversely, this outcome contradicts studies such as Madah Marzuki and Muhammad (2021), Poon, Lee, Har and Teoh (2021), and Paramita and Fuad (2023), which report that higher audit fees are linked to lower tax aggressiveness, arguing that greater fees reflect more comprehensive audits that dissuade risky tax behaviour. Audit tenure exhibits no statistically significant effect on tax aggressiveness ($\beta = 0.0014$, $p = 0.7231$), suggesting that the length of the auditor-client relationship does not materially influence tax planning behaviour among the sampled Nigerian firms. This outcome mirrors findings from Salehi, Tarighi and Shahri (2020) and Bala, Musa and Jibril (2023), who document similar non-significant relationships in Iranian and Nigerian financial firms, respectively, indicating that audit tenure may be a weak determinant of auditor effectiveness in certain regulatory environments. However, other studies (Lestari and Nedya 2019 and Kamarudin, Wan Ismail, Harymawan and Mohamad Ariff 2025) report contrasting results.

5.0 CONCLUSION AND RECOMMENDATIONS

The study found that only audit firm size had a significant negative effect on tax aggressiveness, suggesting that firms audited by larger, more reputable audit firms tend to comply more with tax obligations. In contrast, audit fees and audit tenure did not significantly influence tax aggressiveness, indicating that monetary audit compensation and the duration of auditor-client relationships may not be sufficient determinants of firms' tax behaviour within the Nigerian context. The study therefore recommends that regulatory authorities such as the Financial Reporting Council of Nigeria (FRCN) and the Federal Inland Revenue Service (FIRS) should encourage firms especially those in tax-sensitive sectors like telecommunications and oil and gas to engage larger, more reputable audit firms in carrying out the statutory audit exercise.

6.0 LIMITATION AND FUTURE RESEARCH DIRECTION

The study was limited to audit quality and tax aggressiveness. The variable limitation consist of three independent variables (audit firm size, audit fee and audit tenure) and one dependent variable (cash effective tax rate). While control variable was limited to firm's leverage. The study was limited to two sectors (telecommunication and oil and gas sectors. The duration of study was

limited to five (5) years from 2019 to 2023 and while method of data analysis was limited to Panel Estimated Generalized Least Squares (EGLS) regression technique and descriptive statistics. Future research can focus on overcoming these limitations by increasing the period scope and the variable of the study (independent, dependent and control variables). Carrying out this study in sectors other than telecommunication and oil and gas may give different results. Future research can leverage on these gaps for grey research.

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TAXATION, TAX EVASION AND ECONOMIC GROWTH OF NIGERIA

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ABSTRACT

The research assesses the linkage between tax, tax evasion, and Nigerian economic growth. It specifically investigated how company income tax, petroleum profit tax, value added tax, and tax evasion would impact Nigerian per capita income. The research used secondary data sourced from the annual report of the Nigerian Federal Inland Revenue Services (FIRS) and Central Bank of Nigeria (CBN) statistical bulletin covering the period of 1990 and 2023. The data was estimated using the multiple regression technique. Unit root test revealed levels and first difference stationarity among all variables. The regression result reveals that company income tax, petroleum profit tax, and value added tax positively and significantly while tax evasion negatively and significantly impact per capita income. The study therefore, recommends that the Nigerian government should motivate companies to keep paying their company income tax so as to boost economic growth. This can be achieved by granting tax incentives to companies that frequently pay their taxes.

Keywords: Company Income Tax, Petroleum Profit Tax, Value Added Tax, Tax Evasion, Per Capita Income, Economic Growth.

1. Introduction

Government of most emerging economies like Nigeria prioritizes the populace's needs and supports all initiatives to see the populace growth. Among the Nigerian government's potential to solve economic, social, and environmental challenges, taxation help to achieve economic growth (Adeyemi, 2023). Economic growth heavily focuses on progress, equity, and ecological preservation principles. As a result, fiscal policy needs to be reviewed to better align with its goals. The capacity of taxes to provide funds for significant investments accounts for their significance in economic development (Okoh, et. al., 2025).

Taxation is vital in a nation's investment strategy. Government imposes taxes on individuals and properties to ensure that social services, security, and economic welfare prerequisites are met. The states use tax revenue to assume responsibility for several public duties, including transportation, unemployment benefits,

healthcare, and education (Omodero, et. al., 2021). All areas of growth, including infrastructure, social services, health, education, and environmental protection, are partly funded by government tax revenues. Governments can address citizen needs and establish the framework for sustainable growth by controlling the flow of income taxes (Omodero, et al, 2021). A country's domestic funds can be gotten most effectively utilizing its tax structure. The government uses tax income to fulfill its customary obligations, which include upholding social and economic fairness, policing trade and business, protecting the nation from external and internal aggression, and preserving law and order, reducing income inequality among the population, using the revenue as a fiscal weapon to steer the economy, and luring foreign investment into the economy (Mu, et. al., 2023).

Tax evasion is a major challenge faced by most developing countries, coupled with unending corruption cases in the nation, tax evasion is seen to be peculiar to Nigeria. The rate of tax evasion is developing countries is so worrisome and it is more disturbing that the government of the countries have not deemed it fit to look into the supposed ethical reasons provided by evaders (Okoh, et. al., 2025). Most countries tend to increase their tax rates or borrowings when their revenues cannot cover up for their expenditures anymore and this leads to increased debt and also affects the private sectors of their economy. Private individuals, organizations evade taxes by refusing to disclose their true financial statements due to the extremely high tax rate in the economy and the government not utilizing the tax revenue for the development of the economy, providing infrastructural facilities (Mukolu, et. al., 2021). It is the willful and deliberate act to violate laws and evade tax payment which is imposed by the law of tax jurisdiction (Usman, 2020). This has an adverse effect on the income of the government. Still, not only does Nigeria experience low tax-to-GDP fraction, but so do the other emerging nations. Thus, developing countries find it difficult to obtain sufficient funding for even the most basic necessities.

Although tax evasion is illegal, there are a number of justifications put forth to support it. These include high tax rates, joblessness, poverty, a lack of knowledge misconduct in public office, insufficient education for tax administrators, stealing of tax revenues, tax legislation loopholes, challenges comprehending complicated laws regarding taxes, an inefficient legal system, and the judiciary's failure to enforce significant legislation against taxpayers who fail to pay taxes (Mukolu, et. al., 2021). Non- oil tax revenue is a type of revenue that is generated from any other source other than oil and gas activities (Salami, et. al., 2021).

In pursuing economic development, the nexus between tax policy and its impacts on economic, social, and environmental conditions represents a complex and unexplored area. In spite of the relevance of tax on a nation’s development plans, there is still lack of in-depth knowledge on the methods by which diverse tax

policies impact all economic development areas. The study thus investigated the linkage between tax plus and economic development. Existing research cannot elucidate the precise mechanisms via which tax reform can accomplish these significant societal objectives. Therefore, the research provides an understanding of how the socio-economic environment influences the outcome of Nigerian tax policies. There is no doubt that for the government, tax evasion has been a major challenge. Tax evasion has brought about a huge difference in the actual and budgeted revenue of government. This has made it hard for government to fulfill all obligations like building social infrastructures plus making the country more conducive for the citizens to live in. Another problem associated with tax evasion in Nigeria is the negative impact it has on honest taxpayers in the country. Tax evaders tend to discourage the honest taxpayers from paying taxes because they are left to shoulder a larger portion of tax liabilities than they should. Tax evasion corrodes public confidence in government's ability to ensure equal resource allocation and compromises the general efficacy and fairness of the tax system. The main objective of this study is to examine tax revenue and its impact on the Nigerian economic growth. Therefore, the research questions which forms the null hypotheses for this study are highlighted below:

1. To what extent has company income tax impacted Nigeria’s economic growth?
2. To what length has petroleum profit tax impacted Nigeria’s economic growth?
3. To what degree has value added tax impacted Nigeria’s economic growth?
4. To what level has tax evasion impacted Nigeria’s economic growth?

The study is particularly focused on the Nigerian tax system. The items used are petroleum profit tax, company income tax, and value added tax. In addition, this study would also examine tax evasion and see how the four variables would impact Nigeria’s economic growth for 24 years (1990 to 2023). In line with Nigeria’s efforts to balance social fairness, economic development, and environmental integrity, sustainability has emerged as a critical objective. Within the intricate context of sustainability, taxes stand out as a fundamental and adaptable instrument capable of fostering social progress, shaping financial systems, and contributing significantly to the realization of development.

2 Literature Review

In the past times, nations such as India, China, Egypt, Mesopotamia, Syria, Greece, and Rome were known as developing countries in the World then. But by During the 17th century, the majority of the world's well-known countries demonstrated comparable degrees of growth, adopting similar labor-intensive methods and producing similar types of goods (Basheer, et. al., 2019). Thereafter European countries experienced rapid economic growth which led to the Industrial Revolution. Most of these countries were colonized by the Europeans, which lead to the decline of the economy (Basheer, et. al., 2019). Many of the colonies

attained political independence between the 1940s and 1950s when several economic damages such as World War II, with a deficiency in modern production mode production which leads to labour exploitation and marred traditional production techniques. Later on, countries started to build on all these defaults to stabilize their economic activities. The above is a brief history of Economic Development over time.

Accumulating wealth and diversifying the economy can lead to the improvement of a country's well-being and quality of life which is known as economic development (Akintola, et. al., 2022). Economic development is mainly a function of infrastructural improvements viz-a-viz, the social, political, and institutional elements that impact the evolution of such an economy. Economic growth comprises of measurement of changes in three areas (Akintola, et al, 2022), which are: Government should create objectives/targets to meet the criteria that stabilize prices with the employment rate for sustainable economic growth; programs that will aid infrastructure and services; Job creation and efforts in areas like business development, real estate, and technology transfer. Tax is a key source of revenue for governments and are levied on income, goods and services, property, and various other financial transactions. Taxes are levied in almost every country of the world, primarily to raise revenue for government expenditures, although they serve other purposes as well.

Government Policies and Taxation

Economic development is attained via the use of instruments and tactics by central bank known as monetary policy, which controls the interest rates, money supply, and credit availability. In order to promote economic growth, they are usually meant to keep an eye on inflation, maintain employment levels, and manage long-term interest rates. Establishing regulations that would promote expansion contain inflation, and boost corporate profitability is the primary goal.

Low corporation tax received by businesses has been connected to high interest rates, high exchange rates, and money supply. Banks still lend money to customers today all around the world based on base rates established by central banks. The bank determines a number of parameters, such as profit margin and borrowing risk. Most loans have specified interest rates that are the result of discussions between the lender and the borrower. Banks attempt to adjust the interest rates they charge based on the risk and borrower's creditworthiness; the higher the interest rate, the less creditworthy the borrower (Isibor, 2022b).

A corporation must have turned a profit before corporate tax may be collected from it. A company's profitability is a metric that shows how profitable it is and how well it is performing. With the use of profitability ratios, businesses may assess how profitable they are over time in relation to their sales, assets, operational expenses, and shareholder equity (Isibor, 2022b). When monetary policy is controlled to benefit

businesses, this increases their profitability, which raises corporation tax. For instance, higher interest rates can increase businesses' cost of capital, which discourages investment and reduces the level of economic activity; encouraging business expansion and investment. These shifts in investment behavior can have an immediate impact on corporate profitability and, as a result, corporate tax revenues for the government. Lower interest rates and accommodating monetary policy measures promote economic activity, which raises taxable revenue and business profit. This is known as expansionary monetary policy. However, the increase in economic policy that follows can also result in increase in corporation tax receipts (Okonkwo, et. al., 2019).

Contractionary Monetary Policy: restricting credit availability and interest rates may result in decrease in company profit, investment, and corporate tax receipt. In general, a flexible monetary policy promotes economic expansion, which in turn boosts business activity and may result in larger profits. This improves tax base and possible collections while restrictive monetary policy can impede economic expansion and have an effect on tax receipts and company profits.

Fiscal Policy Measures

Isibor (2022b) stated that fiscal policy means adjustments in government tax and spending. Government expenditures are presently playing very critical role in aggregate money flows which must be controlled to prevent inflation. In times of war, exceptionally huge government expenses (funded by freshly created money due to bank lending to government) marked economic downturn. If government's tax revenues increase, less income of individuals and companies will remain for spending or saving purposes. The magnitude and consequential attributes of higher tax differs based on tax type, still, any tax rise would lower spendable earnings of the country's residents. Therefore, tax increase is anti-inflationary, which will have double consequences supposing government expenses reduced as well (Isibor, 2022b). To a certain extent, governmental tax earnings and expenditures spontaneously react to recession and inflation within a nation, in manners which likely curb highs and lows economically.

Reduced government expenditures and higher earnings yield favourable anti-inflationary outcomes. Such reflexive impacts are insufficient to stave off inflation since their operation solely happens during inflation is occurring. Moreover, by executive resolve of the President, governmental spending could be raised during recession or reduced in times of inflation (Isibor, 2022b). To overcome extreme inflation using fiscal policies, monetary authorities must slash allocations for government expenditures (with exception to wartime) and increase tax rates or charge new taxes.

Theoretical Review

This study employed various theoretical frameworks, including benefit received theory, ability to pay, and socio-political theory.

Benefit Received Theory

It was formulated by Johan Wicksell (1851-1926) and Erik Lindahl (1891-1960) and the principle of the theory is that taxes are used to address tax efficiencies (Chigbu, et. al., 2012). The theory opined that taxes are only necessary to fund public goods expenditures when a political will to pay for benefits is demonstrated (Chigbu, et. al., 2012). This theory operates under the assumption of a reciprocal arrangement between taxpayers and government. According to theory, government offers specific products, and expenses associated with these are distributed using benefits received. However, this theory disregards the potential utilization of tax policy to foster economic growth or stabilization (Mukolu, et. al., 2021).

According to Mukolu, et. al. (2021), the benefits-received theory and the cost-of-service theory are closely analogous. The concept highlights the significant role of quasi-commercial interactions between the government and its citizens. This implied that citizens had no right to any gains from government and that if they did, they would have to foot the bill. This theory can be applied to promote sustainable development in Nigeria by ensuring equitable distribution of tax burden, investing in public goods and services, encouraging compliance and trust, and addressing inequality and poverty. Tax policies should be established so that those with higher incomes or corporations benefiting from government services contribute their fair share. By aligning taxation with providing essential services like infrastructure development, healthcare, plus environmental conservation, taxpayers would view a direct nexus between contributions plus the benefits they would get.

Ability-to-Pay Theory

The theory was introduced by Arthur Cecil Pigou in 1950 and according to this tax theory, taxes should be based on the progressive tax approach (Basheer, et. al., 2019). The idea of equity originated with Adam Smith. His stance is that taxes should be paid in an equal amount, which implies that taxes are due in proportion to income earned. The theory aimed to promote sustainable development in Nigeria by ensuring equitable wealth distribution, mobilizing resources for development, stimulating consumer spending, and fostering social stability. By implementing progressive taxation policies that consider individuals' ability to pay, Nigeria can create a more inclusive environment for economic growth and employment generation, thereby advancing towards sustainable development. This approach reduces income inequality, promotes inclusivity, and funds essential infrastructure projects, education, healthcare, and social welfare programs.

Additionally, it stimulates consumer spending, driving economic activity and fostering social stability. Overall, the theory is a crucial tool for Nigeria's sustainable development.

Empirical Review

Akintola, et. al. (2022) studied influence of tax earnings on economy using ARDL. The study found that VAT, CIT, PPT, and customs and excise charges significantly impacts Nigeria's GDP. Government should invest in the development of infrastructure to achieve a long-term objective. The study should have examined tax evasion as a variable. Ezekwesili, et. al. (2022) examined how tax income affected economic expansion. The study employed GMM model and found that tax has no effect on GDP. The study suggested that the federal government must enhance public financial management and promote transparency. The research failed to examine tax evasion. Ogbodo, et. al. (2021) studied the effect of tax on economic development, the used OLS Technique and the study, all tax offices in Nigeria must implement technology to maximize the positive relationship between CIT and GDP. The study should have examined per capita income as development variable. Egolum, et. al. (2021) investigated how economic development has been impacted by value-added taxes. It was found that there was a statistically positive significant nexus between value-added tax and GDP. Other forms of taxes like CIT should have been examined. Oyeoma, et. al. (2021) assessed tax as a weapon for economic progress with ARDL Bounds Testing model. VAT has a negative impact on GDP, but PPT, CED, plus CIT have positive effects. To achieve intended outcome, the study suggested that FIRS and JTB work with the government to implement suitable VAT remittance policies and minimize bureaucracy and bottlenecks associated with VAT administration. Tax evasion is a concept the study should have examined also. Yaro, et. al. (2021) assessed the linkage between economic growth and taxation by using simple percentile. Expansion of the Nigerian economy and the non-oil revenue profit tax had a positive significance relationship. The study should have examined tax evasion and used ARDL to analyse its data. Solanke, et. al. (2020) employed ARDL Bound test to investigated impacts of tax revenue on economic growth, the findings of the research improve knowledge of CIT and support economic expansion. Government must notify the people to ensure taxes are accounted for correctly. The data year should have been increased to 2020 to cover for the research current year. Olushola, et. al. (2020) used multiple regression to determined how tax income impacts economic growth. There was positive correlation between tax and economic growth. It is in line with the writings of several academics who argue that taxes are determined by how well they are managed. The study should have used ARDL to buttress its findings. Adegbile, et. al. (2020) assessed the effect of non-oil taxes on economic growth and development. The study employed simple regression and found that, non-oil taxes majorly impact Nigeria's economic development and growth. However, the study should have

examined oil tax also especially petroleum profit tax. Adeusi, et. al. (2020) studied effects of non-oil earnings on economic development with multiple regression. CIT plus PIT have significant negative effect on GDP, whereas VAT tax and customs and excise taxes have a more pronounced positive effect. The study concluded that government must be implementing simple, transparent tax laws, and addressing implementation issues. The study should have used per capita income to measure development. Ewa, et. al. (2020) investigated the effect of tax revenue on Nigerian economic development. The used simple logit regression and found that, significant effects of taxes on company earnings and VAT on GDP but little impact on Nigerian oil companies due to production ceiling restrictions, global price shocks, and apathy towards tax payments. The study failed to investigate petroleum profit tax. Bruno, et. al. (2019) analysed tax revenue and the economy and found that, CIT and PIT impacted Nigeria's GDP. The government should address the issue of multiple taxations since it deters entrepreneurial ventures in Nigeria. The study failed to examine PPT and VAT. Edewusi, et. al. (2019) assessed the linkage between economic growth and tax with help of two-stage least squares. VAT, CIT, and PPT affected the level of national output in the short and long term. The study failed to examine tax evasion. Olaoye, et. al. (2019) reviewed on tax revenue and Nigerian economic development. Taxation has a significant effect on Nigeria's economic development. The study failed to examine tax evasion. Okonkwo, et. al. (2019) evaluated economic development from 1996 to 2017 in relation to government tax revenue. It employed observation technique and found that, Nigeria's economic development had not been significantly affected by tax. The government should encourage tax staff training and enforce tax laws to increase tax collection rates. The study should have used regression for its analysis. Muhammad, et. al. (2019) investigated how Petroleum profit Tax affects the Nigerian economy. The OLS regression revealed that, there was substantial effect between total revenue generated plus petroleum profit tax, but no vital correlation between petroleum profit tax and GDP. The study stated that government should explore other measures that will boost gross domestic product. The study should have investigated other tax forms like CIT. Manukaji (2018) employed multivariate logit model to examined the impact tax income on economic development. VAT, PIT, PPT, and CIT had notable impact on GDP. The study should have used per capita income to measure economic development.

3 Research Design

The study used an ex-post facto design to attain its stated objective. Ex-post facto design looks at how a subject matter is examined based on available secondary data. It makes inference and decisions based on the estimation of the sourced data. It also describes the relationship among variables whether significant or not and whether positive or negative. The choice of ex-post factor design was made because of variables under investigation could only be explained by secondary data. The secondary data was employed and

extracted from the FIRS annual report and the CBN statistical bulletin, 2023. The dataset sourced were analyzed using the multiple regression technique and other estimations like the unit root test.

Model Specification

The study adopted the model of Omodero, et. al. (2021) and its implicit format was:

$PCI_t = f\ (CIT, PPT, VAT, TEV)$ and modified as follows:

$PCI_t = f\ (CIT_t, PPT_t, VAT_t, EVA_t)$…… *eqn (1)*

Where: PCI_t = Per capita income in time t

CIT_t = Company income tax in time t; PPT_t = Petroleum profit tax in time t

VAT_t = Value added tax in time t; EVA_t = Tax Evasion in time t

$LPCI_t = \alpha_0 + \beta_1 LCIT_t + \beta_2 LPPT_t + \beta_3 LVAT_t + \beta_4 LVAT_t + \mu_t$……*eqn (2)*

Per capita income (PCI) data was measured by the ratio of gross national income to total population. CIT, PPT, and VAT data were gotten from the FIRS annual report. Tax evasion was measured by the amount the government lose to tax evaders yearly and was extracted from the annual report of the FIRS also.

4 Data Analyses and Discussion of Findings

The section showed the data estimation coupled with interpreting the result. Descriptive analysis was done to reveal the characteristics of all variables. The multiple regression technique was done to test for impact of the subject matter.

Descriptive Statistics

It explained the trait of per capita income (PCI), company income tax (CIT), and petroleum profit tax (PPT), value added tax (VAT), and tax evasion (EVA).

Mean and median are central tendency measurements and from table 4.1, PPT had highest mean and median values of 3601160 and 2236700 respectively. Also, PPT had the highest maximum value of 2872895 while EVA had the minimum figure of 0.009800. The standard deviation measured the variations in a dataset. From table 4.1 PPT had the highest figure of 2941264 while END had the lowest value of 6.582749. The skewness measured the data distribution from the mean and must be between 0 and 1 to show a normal distribution of the dataset. Therefore, all the variables, from the result in table 4.1 were normally distributed with skewness values from 0 and 1. Kurtosis shows the flatness or peakness of the

dataset around the mean. A Kurtosis of 3 or exceeds 3 shows a normal distribution. From the table 4.1, the kurtosis of all the variables were 3 and above respectively to prove that all the variables were normally distributed.

Table 4.1: Summary Statistics

	LPCI	CIT	PPT	VAT	EVA
Mean	1680284	1106463	3601160	1829370	13.53928
Median	1092717	102125.1	2236700	113828.2	10.64821
Maximum	1763724	164936.8	2872895	2034162	16.46901
Minimum	15.51223	0.016900	14.55489	16.87788	0.009800
Std. Dev.	1164651	906589.9	2941264	1172032	6.582749
Skewness	-0.407389	0.513500	1.276202	0.345763	1.438255
Kurtosis	2.859188	2.536658	7.915943	3.339627	4.839015
Jarque-Bera	2.456646	1.586769	56.11359	0.741945	20.94783
Probability	0.092783	0.052311	0.000000	0.090063	0.000000
Sum	504.0851	3.493900	10.83480	548.8109	530.6328
Sum Sq. Dev.	12.81124	0.125936	4.938009	15.04707	13.53276
Observations	34	34	34	34	34

Source: Authors compilation utilising E-views 9 (2025)

Unit Root Test

The study used the Augmented Dickey-Fuller to check for data stationarity. The null hypothesis revealed no unit root. The ADF test statistics must be higher than the 5% test critical value to reveal the stationarity at either levels or first difference. Table 2 shows that all variables were stationary at first difference for the null hypothesis to be rejected**Table 1: Augmented Dickey-Fuller Unit Root Test**

Variable	ADF @ 1st Difference	5% Critical value	Order of Integration
LPCI	-5.255711	-3.759743	I(1)
LPPT	-3.948636	-3.690814	I(1)
LCIT	-5.654949	-3.759743	I(1)
LVAT	-8.464289	-3.759743	I(1)
LEVA	-6.826091	-3.759743	I(1)

Source: Author's computation using E-views 9 (2025)

Multiple Regression Result

From table 3, the coefficient figures showed the type of relationship whether positive or negative that was between LPCI and LCIT, LPPT, LVAT, and LEVA. Hence, from the coefficient figures, LCIT, LPPT, and LVAT moved in the same direction **as** LPCI with values of 0.000189, 0.000388, and 1.451963 respectively. This also means that a unit increase in LCIT would cause LPCI to increase by 0.000189 (0.01%). Also, a unit increase in LPPT would cause LPCI to increase by 0.000388 (0.03%). Finally, when LVAT increases by one unit, LPCI increases by 1.451963 (145%). However, LEVA moved in the opposite direction with LPCI with value of -0.408928 respectively. Hence, a unit increase in LEVA would cause a decrease in LPCI by -0.408928 (40%). Also, table 4.3 showed the significance of each independent variable to test the hypotheses. Using the 5% significant level (lower than 0.05), the probability figures of LCIT, LPPT, LVAT, and LEVA were all significant with probability values of 0.0284, 0.0207, 0.0014, and 0.0000 respectively. In summary, LCIT, LPPT, and LVAT were positively significant in impacting LPCI while LEVA was negatively significant in impacting LPCI. The R-squared measured the goodness of fit of the model and had a value of 0.61. This indicated that LCIT, LPPT, LVAT, and LEVA explain 61% of variations in LPCI. The remaining 39% were factors that affect LPCI but not in the study scope. After adjusting for degree of freedom, the adjusted R-squared was approximately 0.53 (53%). The F-statistics measured the combined significance of LCIT, LPPT, LVAT, and LEVA on LPCI. From the probability result of 0.003407 which was significant at 5% significant level, it shows that all the independent variables jointly and significantly

impact LPCI. Finally, the durbin-watson test was used to show the presence or absence of autocorrelation in the model. Autocorrelation means that all or some of the independent variables are related this makes the regression result spurious. The value of the durbin-watson variable must be estimated at 2 to ensure that there is no autocorrelation in the model. The durbin-watson value of 1.72 was approximately 2 to show that there was no autocorrelation in the model.

Table 2: Multiple Regression Result

Variable	**Coefficient**	**Std. Error**	**t-Statistic**	**Prob.**
C	-0.611737	0.378663	-1.615518	0.1107
LCIT	0.000189	8.44E-05	2.238114	0.0284
LPPT	0.000388	0.000164	2.366837	0.0207
LVAT	1.451963	0.435193	3.336364	0.0014
LEVA	-0.408928	0.045321	-9.022961	0.0000
R^2 = 0.61	Adjusted R^2 = 0.53	F-Statistics = 14.78453	Prob (F-statistic) = 0.003407	Durbin-Watson Test = 1.72

Source: Author's Computation using E-views 9 (2025)

Discussion of Result

Company income tax was positively significant in impacting the Nigerian economic development that was measured by per capita income. This means that both variables move in the same direction whether upward or downward. Edewusi, et. al. (2019) believed that only company income tax had a significant and favorable impact on the Nigerian economy. This was because funds from the tax were utilized to repair any damage done to the environment like flooding and oil plus chemical spillage. This would assist the companies in carrying out their operations with ease and this would in turn improve the per capita income of the company workers. Value added tax was also seen to be significant because as the final consumers bear the burden, adequate funds are made available to the government for infrastructural development, public capital expenditures, and enhance of local production can easily be funded. All these would boost the per capita income of the population through increased earnings. This means that both variables move in the same direction whether upward or downward. Egolum, et. al. (2021) opined that value added tax was a necessity to enhance government revenue in the short run and boost economic development in the long run. This was in line with the positive relationship between both variables as VAT boosts government revenue which when put to use would assist Nigeria in sustaining its economic development. Also, the government revenue

when put to use would enhance infrastructural deficit and this would in turn push up local production, jack up employment rate, and increase per capita income of the Nigerian populace. Petroleum profit tax was also significant positively due to the fact that the tax earns the Nigerian government its highest revenue. Hence, the government would have adequate earnings to carry out fiscal federalism which is the government carrying out capital expenditures in all states of the federation without leaving any state out (Isibor, et. al., 2023). It is one of the key tax variables that boost industrial growth in Nigeria. Huge earnings from the tax would be employed to build industries in Nigeria, boost employment rate, and above all, improve the populaces' per capita income. This means that both variables move in the same direction whether upward or downward**.** Ewa, et. al. (2020) stated that petroleum profit tax was needed to cater for government expenditures on infrastructure that would benefit all the populace and provide the enabling environment for business growth. All these would improve the per capita income geared towards economic development in the long run.

Finally, tax evasion was significant in impacting per capita income. This means that as people evade taxes, it would hamper economic development as the government would have lesser funds to carry out infrastructural development. This led to the negative relationship between evasion and economic development. This means that both variables move in opposite directions**.** The finding was corroborated by Ofoegbu, et. al. (2022) who stated that tax evasion can substantially impede economic development by diminishing government revenue.

5 Summary and Recommendations

The study found that company income tax, petroleum profit tax, and value added tax all positively and significantly impact Nigeria's economic development that was measured by per capita income. However, tax evasion was negatively significant in impacting the same per capita income. The study reached conclusion that the significance of taxation in enhancing a sustained Nigerian economic development cannot be overemphasized. Value added tax boosts government earnings that are spent on infrastructural development. Firms gain from such infrastructures and utilise them to lower production costs, which then enhances productivity and boost the per capita income of the company workers and the populace. Petroleum profit tax gives the government the major tax receipt and funds used for huge capital expenditures and also control elements that affect the business environment like flooding and oil spillage. Therefore, the study recommends that Nigerian government should continue to motivate companies to keep paying their company income tax so as to boost economic development. They can do this by granting tax incentives to companies that frequently pay their tax. Also, government should increase the tax compliance and monitoring level of the petroleum profit tax since the tax makes up a large percentage of the government tax revenue. The VAT percentage at the current 7.5% should be maintained, despite the fact that the 7.5%

is a burden to the taxpayers of VAT, as any upward review might be a burden to pay by the taxpayers and it would hamper the standard of living in the short run and economic development in the long run and give tax holidays to firms that merit it so as to avoid tax evasion.

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Data

YEAR	LPCI	LPPT	LVAT	LCIT	LEVA
1990	3.612883	1.247391	0.427176	0.653478	1.483261
1991	3.658547	1.333816	0.647133	0.771029	1.453728
1992	3.809463	1.427508	0.690584	0.936284	1.691973
1993	3.963557	1.583253	0.742871	0.975533	1.746011
1994	4.224611	1.623249	0.845098	1.079181	1.879446
1995	4.457216	1.633468	1.322219	1.342423	1.952182
1996	4.566155	1.886491	1.491362	1.363612	1.993159
1997	4.58919	1.838849	1.531479	1.444045	2.060243
1998	4.614676	1.832509	1.556303	1.522444	2.173258
1999	4.660884	2.214844	1.672098	1.664642	2.224936
2000	4.759592	2.524396	1.763428	1.726727	2.463992
2001	4.81474	2.609701	1.962369	1.841359	2.581098
2002	4.948203	2.351023	2.03583	1.949878	2.68492
2003	5.007918	2.641474	2.134814	2.059942	2.693151
2004	5.122308	2.943791	2.212986	2.116608	3.140789
2005	5.216374	3.131041	2.284882	2.23096	3.373285

2006	5.323163	3.130173	2.366796	2.392169	2.94025
2007	5.368904	3.053846	2.494989	2.521661	3.051424
2008	5.418628	3.314057	2.603902	2.623869	3.217731
2009	5.443324	2.972856	2.682513	2.77465	3.492638
2010	5.530592	3.170368	2.751965	2.818557	3.553209
2011	5.581565	3.487222	2.818987	2.815875	3.584861
2012	5.628805	3.505329	2.851598	2.914113	3.694322
2013	5.66618	3.42592	2.904544	2.98383	3.841596
2014	5.701131	3.389865	2.904696	3.06948	2.755173
2015	5.713727	3.110576	2.884984	3.103448	2.919227
2016	5.735347	3.063637	2.918135	2.970132	3.342854
2017	5.773645	3.181981	2.987822	3.084597	3.536326
2018	5.813367	3.392271	3.044555	3.127212	3.60294
2019	5.855131	3.32516	3.07554	3.205393	3.647281
2020	5.869485	3.180984	3.185024	3.10564	3.699657
2021	5.916502	3.302861	3.316568	3.242539	3.715363
2022	5.966602	3.624179	3.400711	3.423082	3.75208
2023	5.994218	3.842698	3.672584	3.589042	3.846474

Source: FIRS and CBN Annual Reports (Various Issues)