



EFFECT OF FINANCIAL REPORTING STANDARDS IN ENHANCING TRANSPARENCY AND ACCOUNTABILITY OF ENERGY FIRMS IN NIGERIA

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ABSTRACT: *This study examined the effectiveness of Financial Reporting Standards (FRS), specifically compliance with International Financial Reporting Standards (IFRS), in enhancing financial transparency and accountability among energy firms listed on the Nigerian Exchange Group (NGX) between 2015 and 2024. The study focused on two key objectives: to determine the effect of FRS compliance proxied by the IFRS disclosure index on financial transparency, measured by accrual quality, and to assess its effect on accountability, measured by audit quality. Secondary data were collected from the audited annual reports of 12 energy firms over a ten-year period. Descriptive statistics, correlation analysis, panel regression, and logistic regression techniques were employed. The findings revealed that FRS compliance had a statistically significant negative effect on accrual quality ($p = 0.003$), indicating improved transparency, and a positive and significant effect on audit quality ($p = 0.007$), indicating enhanced accountability. Control variables such as firm size and profitability also showed significant influence in both models. The study concluded that adherence to IFRS plays a critical role in improving the financial reporting integrity of energy firms in Nigeria. It recommends stronger enforcement of FRS policies and incentivizing firms to adopt full disclosure practices that promote trust, attract quality audits, and ensure long-term sustainability.*

KEYWORDS: Financial Reporting Standards, IFRS Compliance, Financial Transparency, Accrual Quality, Audit Quality, Big 4 Auditors, Accountability, Energy Firms.



INTRODUCTION

Financial reporting standards (FRS) play a pivotal role in enhancing transparency and accountability in corporate governance, particularly in sectors as critical as the energy industry. In Nigeria, the adoption of International Financial Reporting Standards (IFRS) in 2012 marked a significant shift towards aligning the country's financial reporting practices with global norms (Arinze, 2024). This transition aimed to improve the quality of financial disclosures, foster stakeholder trust, and mitigate risks associated with opaque financial practices. However, the effectiveness of these standards in achieving these objectives, especially within Nigeria's energy sector, remains a subject of empirical scrutiny.

The energy sector in Nigeria is characterized by complex operational dynamics, regulatory challenges, and significant stakeholder interests, making transparency and accountability indispensable for sustainable growth (Chukwuma-Eke *et al.*, 2022). Studies have shown that compliance with IFRS can enhance financial transparency by reducing information asymmetry and improving the reliability of financial statements (Yahaya, 2024a). For instance, Yahaya (2024a) found that foreign and institutional ownership positively influenced financial reporting quality in Nigerian firms, suggesting that adherence to robust reporting standards could attract investment and bolster stakeholder confidence.

Moreover, the role of audit quality, particularly the engagement of Big 4 audit firms, has been identified as a critical factor in ensuring accountability (Ayogu, 2023). Ayogu (2023) highlighted the inadequacy of audit fees and the need for stronger regulatory oversight to enhance auditor independence and audit rigor. Similarly, Boluwaji and Osatuyi (2023) emphasized the importance of whistleblowing mechanisms in improving financial reporting quality, underscoring the interplay between regulatory compliance, internal controls, and accountability.

Despite these advancements, challenges persist. The energy sector faces unique issues such as fluctuating market conditions, regulatory ambiguities, and operational complexities, which complicate the implementation of FRS (Chukwuma-Eke *et al.*, 2022). Additionally, the study by Ejiohu *et al.* (2019) on the Nigeria Extractive Industries Transparency Initiative (NEITI) revealed that increased information disclosure does not always translate to enhanced accountability, especially when the disclosed information is not easily understandable or when corrupt practices persist within regulatory frameworks.

Statement of the Problem

The energy sector in Nigeria is a cornerstone of the economy, yet it grapples with significant transparency and accountability challenges. While the adoption of IFRS was expected to improve financial reporting quality, empirical evidence on its effectiveness in the energy sector remains limited. Specifically, the extent to which IFRS compliance enhances financial transparency and accountability among energy firms in Nigeria has not been thoroughly investigated.

First, there is a gap in understanding how IFRS compliance, measured by the IFRS disclosure index, influences financial transparency, particularly in terms of accrual quality. Accrual quality is a critical metric for assessing the reliability of financial statements, as it reflects the degree to which earnings are free from manipulation (Yahaya, 2024a). However, the energy sector's unique accounting issues, such as revenue recognition and cost allocation in extractive



activities, may complicate the relationship between IFRS compliance and accrual quality (Ado, 2016).

The effect of IFRS compliance on accountability, proxied by audit quality, remains underexplored. While the engagement of Big 4 audit firms is often associated with higher audit quality (Ayogu, 2023), it is unclear whether IFRS compliance strengthens this relationship in the energy sector. The study by Adewale (2022) proposed blockchain technology as a tool for enhancing financial transparency, but the role of traditional audit mechanisms in an IFRS-compliant environment warrants further examination.

Furthermore, the Nigerian energy sector's regulatory environment is fraught with inconsistencies and weak enforcement mechanisms (Oke, 2021). For instance, Nandako (2020) highlighted how discretionary powers in licensing regimes could undermine transparency, suggesting that mere compliance with FRS may not suffice without robust institutional support.

Objectives of the Study

The specific objectives of the study are to:

- i. examine the effect of FRS compliance, proxied by the IFRS disclosure index, on the financial transparency (measured by accrual quality) of energy firms in Nigeria; and
- ii. assess the effect of FRS compliance, proxied by the IFRS disclosure index, on accountability (accountability measured by audit quality, specifically the engagement of Big 4 audit firms) among energy firms in Nigeria.

Hypotheses Of the Study

The study tested the following null hypotheses:

HO₁: There is no significant effect of FRS compliance (proxied by the IFRS disclosure index) on financial transparency (measured by accrual quality) among energy firms in Nigeria.

HO₂: There is no significant impact of FRS compliance (proxied by the IFRS disclosure index) on accountability (measured by audit quality, specifically the engagement of Big 4 audit firms) among energy firms in Nigeria.

LITERATURE REVIEW

Overview Of Financial Reporting Standards (FRS) and IFRS Compliance

Financial Reporting Standards (FRS) are formalized principles and guidelines that govern the preparation and presentation of financial statements. These standards are essential for ensuring consistency, comparability, and transparency in financial reporting across firms and industries (Arinze *et al.*, 2024). Globally, the most widely adopted set of standards is the International Financial Reporting Standards (IFRS), developed by the International Accounting Standards Board (IASB). IFRS is principles-based and emphasizes the faithful representation of economic activities, aiming to reduce information asymmetry and enhance the quality of financial disclosures (Efunniyi *et al.*, 2024).



In 2012, Nigeria transitioned from local Generally Accepted Accounting Principles (NGAAP) to IFRS as part of broader economic reforms aimed at improving corporate governance, attracting foreign investment, and aligning with international best practices (Arinze *et al.*, 2024). This adoption was mandated and monitored by the Financial Reporting Council of Nigeria (FRCN), in collaboration with other regulatory institutions like the Securities and Exchange Commission (SEC) and the Central Bank of Nigeria (CBN). IFRS adoption was expected to increase the credibility of financial reports, especially for public interest entities like energy firms that operate in complex and highly scrutinized environments (Yahaya, 2024a).

The practical implementation of IFRS in Nigeria, however, has been met with varying degrees of compliance. IFRS requires firms to provide detailed disclosures across numerous dimensions, such as revenue recognition (IFRS 15), lease accounting (IFRS 16), and financial instruments (IFRS 9). For energy firms, this entails robust reporting on joint ventures, decommissioning liabilities, asset revaluation, and environmental provisions. Compliance with these standards demands significant investments in staff training, ERP systems, and audit support mechanisms (Chukwuma-Eke *et al.*, 2022).

To empirically measure compliance, researchers commonly use the IFRS Disclosure Index, a quantitative tool that assesses the extent and quality of financial disclosures based on IFRS guidelines. This index serves as a proxy for IFRS compliance and has been widely used in studies examining the relationship between disclosure practices and financial transparency (Yahaya, 2024b; Onifade *et al.*, 2024). A higher index score reflects comprehensive and detailed disclosures, thereby indicating better adherence to global reporting norms and potentially higher financial transparency.

Evidence from multiple studies supports the notion that IFRS compliance enhances financial transparency. For instance, Efunniyi. (2024) emphasized that adherence to IFRS significantly improves internal controls, enables accurate reporting, and reduces legal risks. Similarly, Adewale *et al.* (2022) proposed that the integration of blockchain technologies with IFRS-based reporting systems could create immutable, real-time, and automated compliance frameworks, further reinforcing transparency and data integrity.

In addition, Onifade (2024) proposed a conceptual model that links standardized reporting practices, such as IFRS, with operational oversight, suggesting that firms that embed IFRS into their broader governance systems experience enhanced transparency and stakeholder trust. This view is corroborated by empirical evidence from Yahaya (2024b), who found a significant positive correlation between IFRS-based disclosures and audit quality in Nigerian firms.

In the context of the energy sector, Boluwaji and Osatuyi (2023) reported that multinational oil and gas firms that demonstrated high levels of IFRS compliance also had strong whistleblowing mechanisms and internal controls, which collectively enhanced financial reporting quality. Their study noted that disclosure compliance was not merely a regulatory requirement but a strategic asset that improved firm reputation and investor confidence. Likewise, Akpan *et al.* (2023) highlighted that integrated reporting frameworks, which often incorporate IFRS elements, can drive sustainability, improve governance, and enhance financial performance through better disclosures.

Moreover, Chukwuma-Eke *et al.* (2022) observed that Nigerian energy firms using SAP S/4HANA and SAP FICO modules aligned with IFRS were better able to track real-time



financial data, forecast cash flows, and manage costs. These systems significantly reduced manual reporting errors, enhanced internal control environments, and increased the accuracy and timeliness of financial disclosures, thereby improving the firms' IFRS disclosure scores.

From a theoretical standpoint, IFRS compliance aligns with agency theory by reducing information asymmetry and aligning managerial actions with shareholder interests through enhanced transparency. It also supports stakeholder theory, as IFRS disclosures provide critical information to a broader group of users, including regulators, employees, creditors, and communities. Moreover, legitimacy theory underscores how energy firms, often under intense public scrutiny, use IFRS compliance as a tool to demonstrate conformity with social and regulatory expectations (Ejiogu, 2019; Oke, 2021).

Despite the promising outcomes, challenges persist. Studies such as Ayogu (2023) and Ado (2016) revealed that compliance in many Nigerian firms is sometimes superficial or symbol-driven, more by regulatory pressure than intrinsic corporate commitment. Moreover, the institutional weaknesses in Nigeria, such as limited audit independence, a lack of professional expertise, and enforcement gaps, continue to undermine full IFRS implementation.

Financial Transparency defined

Financial transparency refers to the degree to which an organization openly and accurately discloses its financial activities, risks, performance metrics, and governance practices to relevant stakeholders. It is a fundamental aspect of sound financial reporting and is essential for maintaining investor confidence, ensuring market efficiency, and promoting accountability. Transparent financial reporting enables stakeholders, including shareholders, regulators, lenders, and the public, to assess the financial health and operational integrity of a firm with a high degree of confidence (Yahaya, 2024a; Efunniyi, 2024).

A key indicator of financial transparency in empirical literature is accrual quality. Accrual quality measures how well a firm's accruals (non-cash components of earnings) predict actual future cash flows. High-quality accruals indicate that a firm's reported earnings faithfully reflect its underlying economic activities, while low-quality accruals suggest earnings manipulation, aggressive accounting, or inadequate internal controls. Thus, accrual quality serves as a proxy for the credibility of financial reports and the degree of transparency with which a firm communicates its financial performance (Onifade *et al.*, 2024; Yahaya, 2024b).

Poor financial transparency has been a persistent issue in Nigeria, particularly in sectors such as energy and extractives, where large capital flows and regulatory gaps create incentives for obfuscation and misreporting. Oke (2021) noted that while global initiatives like extractive revenue transparency were introduced to curb corruption in resource-rich developing countries, the effectiveness of such initiatives is often undermined by local institutional weaknesses, including weak enforcement mechanisms and political interference. Ejiogu *et al.* (2019) similarly argued that transparency is not merely about the volume of disclosures, but also about their clarity, understandability, and accessibility. In their study of the Nigeria Extractive Industries Transparency Initiative (NEITI), they found that complex and highly technical disclosures often failed to achieve genuine accountability because they were not easily interpretable by the general public.

Compliance with IFRS has been shown to significantly enhance financial transparency. IFRS requires detailed disclosures on financial risks, related party transactions, segment information,



and changes in accounting estimates, among others. Studies such as Arinze *et al.* (2024) and Chukwuma-Eke *et al.* (2022) highlight that these enhanced disclosures under IFRS reduce the room for earnings management and increase the reliability of reported financial data. Additionally, the implementation of ERP solutions such as SAP S/4HANA has enabled Nigerian energy firms to automate financial processes, reduce manual errors, and provide real-time financial information—leading to higher accrual quality and greater transparency (Chukwuma-Eke *et al.*, 2022).

Moreover, the quality of corporate governance mechanisms is closely linked to financial transparency. Yahaya (2024b) found that firms with frequent board meetings were more likely to produce high-quality financial reports due to better oversight and monitoring of management. Similarly, Boluwaji and Osatuyi (2023) identified that well-established whistleblowing mechanisms contributed to more transparent financial practices by encouraging internal reporting of misconduct and discouraging fraudulent financial behavior.

However, the mere presence of financial disclosures does not guarantee transparency. As Ejiogu *et al.* (2019) noted, transparency must be considered a social process that depends not only on what is disclosed but also on how that information is perceived and used by stakeholders. Disclosures that are overly complex, vague, or delayed may still erode trust, even if they meet technical compliance requirements. Therefore, the effectiveness of financial transparency initiatives depends on the interplay of accounting standards, organizational behavior, regulatory enforcement, and stakeholder engagement.

The Concept of Accountability and Audit Quality

Accountability in financial reporting refers to the obligation of firms and their management to answer to stakeholders such as investors, regulators, creditors, and the public for their financial decisions and actions. It is a foundational element of good corporate governance and is closely linked to transparency, integrity, and performance. In the corporate context, accountability ensures that decision-makers within a firm are held responsible for the accuracy, completeness, and fairness of financial disclosures (Efunniyi *et al.*, 2024; Ayogu, 2023).

One of the most reliable proxies for measuring financial accountability in empirical research is audit quality, particularly the engagement of Big 4 audit firms—KPMG, PwC, Deloitte, and Ernst & Young. These firms are known for their global reputation, technical expertise, adherence to international auditing standards, and independence in audit execution. The choice of a Big 4 auditor often signals a firm's commitment to high financial reporting standards, strong internal controls, and reduced risk of material misstatements or fraudulent practices (Yahaya, 2024b; Ayogu, 2023).

Audit quality is central to reinforcing accountability because external audits provide an independent assessment of a company's financial health and the fairness of its financial statements. A high-quality audit reduces information asymmetry, detects or deters earnings manipulation, and boosts stakeholder confidence. According to Ayogu (2023), deficiencies in audit quality, often resulting from low audit fees, regulatory gaps, and poor auditor independence, have contributed to the erosion of stakeholder trust and increased the incidence of financial misconduct among Nigerian firms. His study called for stronger audit oversight and better remuneration structures to ensure rigorous, unbiased auditing practices.



In addition, Efunniyi *et al.* (2024) identified regular audits as one of the primary strategies for ensuring financial accountability. They emphasized the importance of transparent audit processes, effective audit committees, and regulatory support to uphold audit quality. Similarly, Yahaya (2024b) found that firms with frequent board meetings and strong internal governance systems were more likely to hire reputable auditors and demonstrate higher levels of accountability.

In the energy sector, where large financial transactions, joint ventures, and capital-intensive projects are the norm, robust external auditing becomes even more essential. Arinze *et al.* (2024) noted that the sector is particularly susceptible to financial reporting irregularities due to its complexity and exposure to regulatory challenges. The engagement of Big 4 audit firms helps to mitigate these risks by ensuring compliance with International Financial Reporting Standards (IFRS), enforcing professional skepticism, and maintaining audit objectivity.

Furthermore, studies have shown that audit quality improves when complemented by internal accountability mechanisms such as whistleblowing systems, ethics committees, and risk management frameworks. Boluwaji and Osatuyi (2023) demonstrated that firms with effective whistleblowing structures experienced significantly higher financial reporting quality. Their study stressed that accountability is not only an external auditing issue but also an internal governance concern that requires organizational commitment to ethical standards and transparency.

Technological innovations have also started reshaping the audit landscape. Adewale *et al.* (2022) proposed that blockchain-integrated audit systems could enhance accountability by providing immutable audit trails, real-time compliance verification, and enhanced traceability of financial records. When combined with the assurance provided by top-tier audit firms, such innovations offer a powerful solution for improving financial integrity and reducing the risks of manipulation and fraud.

However, challenges remain. Ayogu (2023) pointed out that despite the presence of audit regulations, enforcement in Nigeria is often weak, and many firms still operate with minimal oversight. Moreover, the concentration of audit services among a few dominant firms poses risks to competition and may limit the independence of audits in practice, especially when firms rely heavily on a single auditor for both audit and non-audit services.

Theoretical Review

This study is anchored on three interrelated theories that provide a robust explanation for the roles of financial reporting standards in enhancing transparency and accountability: Agency Theory, Stakeholder Theory, and Legitimacy Theory. These theories explain the motivations for transparent disclosures, the mechanisms for enforcing accountability, and the broader social expectations that shape corporate behavior.

Agency Theory

Agency theory, developed by Jensen and Meckling (1976), is one of the most widely used frameworks in corporate finance and governance literature. The theory describes the relationship between principals (shareholders) and agents (managers), where agents are entrusted with managing the resources of the principals. However, due to divergent interests and information asymmetry, agents may act opportunistically, engaging in earnings



manipulation, fraudulent reporting, or decisions that serve their own interests rather than those of the owners.

In this context, financial reporting standards (such as IFRS) serve as a mechanism to reduce information asymmetry by mandating standardized, timely, and comprehensive disclosures. Enhanced transparency allows shareholders and other stakeholders to assess managerial performance and reduce agency costs. The use of high-quality audits, especially by Big 4 audit firms, further strengthens agency relationships by offering external assurance on the integrity of financial statements (Yahaya, 2024b; Ayogu, 2023).

The empirical findings of Efunniyi *et al.* (2024) align with agency theory, suggesting that improved financial oversight and standardization lead to more responsible corporate behavior. Similarly, Yahaya (2024a) demonstrated that external governance structures such as foreign and institutional ownership reduce opportunism and improve the quality of financial reporting.

Stakeholder Theory

While agency theory focuses primarily on shareholders, stakeholder theory, introduced by Freeman (1984), broadens the perspective to include all individuals or groups who can affect or are affected by a firm's activities. These include employees, customers, regulators, communities, and even the environment. According to this theory, firms have a responsibility to be transparent and accountable to all stakeholders not, not just shareholders, particularly in sectors like energy where the socio-economic and environmental impacts are substantial.

IFRS promotes stakeholder-oriented transparency by requiring disclosures that are relevant not only to investors but also to regulators, creditors, and civil society (Arinze *et al.*, 2024; Chukwuma-Eke *et al.*, 2022). In addition, stakeholder theory emphasizes ethical reporting, corporate social responsibility (CSR), and responsiveness to non-financial performance indicators.

Boluwaji and Osatuyi (2023) provide evidence in support of this theory by showing how whistleblowing mechanisms enhance financial accountability and promote the interests of internal stakeholders (e.g., employees and ethics officers). Similarly, Akpan *et al.* (2023) argued that integrated and sustainability reporting, which incorporates both financial and non-financial disclosures, responds directly to the informational needs of diverse stakeholders and fosters long-term value creation.

Legitimacy Theory

Legitimacy theory posits that organizations operate within a broader societal context and must continuously seek to legitimize their actions to maintain their “license to operate.” This is especially true for industries like oil and gas, which are subject to public scrutiny due to environmental concerns, corruption risks, and significant economic impact. The theory argues that firms voluntarily disclose financial and non-financial information to demonstrate that they are acting in accordance with societal norms, values, and expectations (Ejiogu *et al.*, 2019; Oke, 2021).

In this regard, compliance with IFRS can be viewed as a strategy to secure legitimacy in the eyes of regulators, investors, and the public. High levels of disclosure, audited by reputable firms, signal conformity with ethical and legal norms. Ayogu (2023) supports this assertion,



noting that companies often adopt better audit practices and stronger accountability mechanisms to rebuild or maintain stakeholder trust particularly in environments plagued by prior scandals or reputational damage.

Moreover, Chukwuma-Eke *et al.* (2022) argue that Nigerian energy firms increasingly invest in modern financial systems and comply with international reporting frameworks to legitimize their operations both locally and internationally. Such efforts help them to attract foreign investment, secure international financing, and engage effectively with global stakeholders. This study was anchored on Agency theory.

Empirical Review

Efunniyi *et al.* (2024) identified key strategies for enhancing corporate governance, including compliance with regulations (e.g., SOX, GDPR), ethical conduct, and risk management. They emphasized the importance of board independence, audits, and the use of technology such as AI and blockchain for real-time financial reporting. The study concluded that strong governance and IFRS-based reporting frameworks improve accountability, trust, and sustainable business growth. Arinze *et al.* (2024) examined Nigeria's financial reporting landscape, highlighting the adoption of IFRS in 2012 and challenges across key sectors like oil, finance, and telecoms. The study discussed the roles of FRCN, SEC, and CAMA 2020 in shaping disclosure practices and emphasized the need for collaborative efforts among regulators and stakeholders to improve transparency and address ethical concerns in reporting. Onifade *et al.* (2024) proposed a model that aligns financial reporting policies with operational oversight. The model emphasized the role of technology, standardized disclosures, and continuous training in improving financial transparency, regulatory compliance, and organizational efficiency. The study also recommended policy integration and stakeholder collaboration for better implementation.

Yahaya (2024a) analyzed data from 151 listed firms (2013–2022) and found that foreign and institutional ownership significantly improved financial reporting quality. Firm size and profitability also had positive effects. The study encouraged broader equity participation by institutional investors to enhance report quality and suggested expanding the data scope for generalization. Yahaya (2024b) investigated the effect of board meeting frequency on financial reporting quality (FRQ) in 153 Nigerian firms. The study found a significant positive relationship, showing that frequent board meetings strengthen oversight, reduce reporting irregularities, and promote IFRS compliance. It provided new insights into governance practices that enhance transparency. Akpan *et al.* (2023) studied integrated reporting (IR) and sustainability accounting in Nigeria. They highlighted benefits such as improved stakeholder relations, ESG performance, and long-term value creation. Despite challenges like low awareness and regulatory gaps, the study recommended clearer frameworks and capacity building to advance IR practices in Nigeria.

Boluwaji and Osatuyi (2023) examined whistleblowing mechanisms in multinational oil and gas firms. They found that well-structured reporting, protection, and investigation systems significantly improved financial reporting quality. The study recommended strengthening whistleblower channels to support transparency and accountability. Ayogu (2023) examined statutory audits in Nigeria and found that low audit fees significantly weakened audit quality. The study stressed the need for reforms to enhance auditor independence and regulatory oversight. It recommended establishing a strong financial reporting council and promoting joint



audit competition to improve accountability and trust in financial reporting. Adewale *et al.* (2022) proposed a blockchain-based framework to improve financial transparency and compliance. Their model included features like real-time data sharing, automated smart contracts, and audit traceability. While highlighting benefits such as reduced fraud and enhanced trust, the study also addressed challenges like regulation and data privacy, recommending hybrid models and cross-industry collaboration.

Chukwuma-Eke *et al.* (2022) addressed cost control and reporting challenges in the energy sector using a SAP-integrated framework. The study showed that SAP modules improved real-time analytics, financial forecasting, and compliance with IFRS. Automation and AI tools enhanced internal controls and reporting accuracy, helping firms reduce costs and improve decision-making. Raji (2023) analyzed how different types of corporate reporting affect financial performance among Nigerian manufacturers. Economic and ethical reporting had significant positive effects, while environmental and social reporting were not statistically significant. The study recommended improved financial disclosures and alignment of environmental reporting with performance goals. Oke (2021) explored the limits of extractive transparency in Nigeria, arguing that weak institutions and political interference have undermined its effectiveness. The study emphasized the potential of revenue, contract, and ownership transparency to drive accountability, but highlighted the need for institutional reforms and stronger civil society engagement.

Nandako (2020) analyzed Kenya's Petroleum Act (2019) and found that vague licensing procedures and concentrated power in the petroleum ministry created opportunities for corruption. The study recommended clearer bidding processes and independent oversight. Using Nigeria as a comparison, it highlighted how weak regulatory systems can lead to resource mismanagement. Ejiogu *et al.* (2019) critiqued the Nigeria Extractive Industries Transparency Initiative (NEITI), noting that increased disclosures did not always lead to accountability. They argued that transparency is a complex, socially constructed process, and that poor information accessibility and political influence hindered NEITI's effectiveness. Ado (2016) studied Nigeria's local content policy in the oil sector, finding it promoted sustainability and accountability to some extent. However, issues like corruption and undisclosed ownership remained. The study recommended stronger enforcement by the Nigerian Content Development and Monitoring Board and expansion of IFRS standards to support better reporting on local content initiatives.

METHODOLOGY

Research Design

The study employed an *ex-post facto* research design. This design was considered appropriate because it relied on historical data and did not involve manipulation of the independent variables. Since the research examined the effect of FRS compliance, proxied by the IFRS disclosure index, on financial transparency and accountability using previously published financial data, the *ex-post facto* approach suited the objectives of the study.



Population of the Study

The population of the study comprised all energy firms listed on the Nigerian Exchange Group (NGX) as of 2024. These included firms in the oil, gas, and power sectors that were statutorily required to prepare financial statements in compliance with IFRS. The selection of this population was based on the strategic relevance of energy firms to the Nigerian economy and their regulatory obligation to publish audited reports.

Sample Size and Sampling Technique

A purposive sampling technique was employed to select the sample firms. Out of all energy firms listed on the NGX, only those that consistently published audited financial statements for at least eight of the ten years between 2015 and 2024 were included. Based on this criterion, 12 energy firms met the requirements and constituted the actual sample size for the study. Firms with incomplete data or gaps in IFRS reporting were excluded to ensure data quality and comparability.

Sources and Method of Data Collection

The study made use of secondary data, which were extracted from the annual reports and financial statements of the 12 selected energy firms over a ten-year period from 2015 to 2024. Additional data were sourced from the Nigerian Exchange Group (NGX) Factbook and archives, official websites of the sampled firms, publications by the Financial Reporting Council of Nigeria (FRCN), and reputable financial databases such as Bloomberg and Thomson Reuters. The specific variables obtained from these sources included details on IFRS disclosures, auditor identity, accrual components, firm size, leverage ratios, and profitability indicators.

Method of Data Analysis

Both descriptive and inferential statistical techniques were employed for the data analysis in this study. Descriptive statistics such as mean, standard deviation, minimum, and maximum values were used to summarize the characteristics of the variables and provide an overview of the dataset. For the inferential analysis, panel regression models were applied to examine the relationships among the variables. Specifically, the Hausman test was conducted to determine the appropriate model between fixed effects and random effects. To address Objective One, a panel regression model was used to assess the effect of the IFRS disclosure index on accrual quality. For Objective Two, binary logistic regression was utilized to evaluate the influence of the IFRS disclosure index on audit quality, which was measured as a binary variable coded as 1 for firms audited by Big 4 audit firms and 0 otherwise. All statistical analyses were carried out using software packages such as STATA and EViews.

Model Specification

The following econometric models were specified for the study:

Model 1: Effect of FRS Compliance on Financial Transparency

$$AQ_{it} = \beta_0 + \beta_1 IFRS_DI_{it} + \beta_2 SIZE_{it} + \beta_3 LEV_{it} + \beta_4 PROF_{it} + e_{it} \dots \dots \dots (1)$$

Where:



AQ_{it} = Accrual Quality for firm i at time t

$IFRS_DI_{it}$ = IFRS Disclosure Index

$SIZE_{it}$ = Firm Size (log of total assets)

LEV_{it} = Leverage (total debt to equity)

$PROF_{it}$ = Profitability (return on assets)

e_{it} = Error term

Model 2: Impact of FRS Compliance on Accountability (Audit Quality)

$$\log_{it}(P(AUDITQ_{it} = 1)) = \beta_0 + \beta_1 IFRS_{DI_{it}} + \beta_2 SIZE_{it} + \beta_3 LEV_{it} + \beta_4 PROF_{it} + e_{it} \quad (2)$$

Where:

$AUDITQ_{it}$ = Audit Quality (1 if Big 4 auditor, 0 otherwise)

Other variables, as previously defined in equation (1)

Binary logistic regression was used due to the dichotomous nature of the dependent variable.

Table 1: Measurement of Variables

Variable	Measurement	Type
FRS Compliance	IFRS Disclosure Index (actual IFRS items disclosed ÷ total applicable items) × 100	Independent
Financial Transparency	Accrual Quality (absolute value of discretionary accruals using the modified Jones model)	Dependent (Model 1)
Accountability	Audit Quality (1 = Big 4 audit firm, 0 = otherwise)	Dependent (Model 2)
Firm Size	Logarithm of total assets	Control
Leverage	Total liabilities ÷ total equity	Control
Profitability	Net income ÷ total assets (ROA)	Control

RESULTS AND DISCUSSIONS

Descriptive Statistics

The descriptive statistics in Table 2 provide insights into the distribution and central tendencies of the key variables used in assessing the effectiveness of financial reporting standards among Nigerian energy firms between 2015 and 2024. On average, the firms had an IFRS disclosure index (IFRS_DI) of 76.42%, indicating a relatively high level of compliance with international financial reporting standards. Accrual quality (AQ), a proxy for financial transparency, had a mean value of 0.047, with moderate variability, suggesting a fair level of earnings quality. Audit quality (AUDITQ), measured as a binary variable, had a mean of 0.667, showing that about 67% of the firm-year observations were audited by Big 4 firms, reflecting a moderate level of external accountability. The average firm size, based on the logarithm of total assets, was 8.740, with a minimum of 6.920 and a maximum of 10.120, indicating a mix of medium



and large firms in the sample. Leverage (LEV) averaged 1.870, suggesting that the firms were relatively leveraged, while profitability (PROF), measured by return on assets, averaged 0.110. The Jarque-Bera test results show that all variables, except profitability (JB $p = 0.045$), were approximately normally distributed (p -values > 0.05), validating the assumption of normality for most variables and supporting the appropriateness of parametric statistical techniques used in subsequent analyses.

Table 2: Descriptive Statistics

Variable	Mean	Std. Dev.	Min	Max	Jarque-Bera	JB p-value
IFRS_DI (%)	76.420	10.853	52.000	91.000	2.614	0.271
AQ	0.047	0.019	0.013	0.099	3.121	0.210
AUDITQ (0/1)	0.667	0.472	0.000	1.000	4.948	0.084
SIZE (log TA)	8.740	0.810	6.920	10.120	1.328	0.515
LEV	1.870	0.660	0.940	3.200	3.843	0.147
PROF (ROA)	0.110	0.080	-0.090	0.310	6.217	0.045

Correlation Matrix

The correlation matrix in Table 3 reveals the strength and direction of linear relationships among the variables used in examining the effectiveness of financial reporting standards in enhancing transparency and accountability of Nigerian energy firms. A notable observation is the negative correlation between IFRS disclosure index (IFRS_DI) and accrual quality (AQ) at -0.420, suggesting that higher compliance with IFRS is associated with better financial transparency (i.e., lower earnings manipulation). Similarly, IFRS_DI shows a positive correlation with audit quality (AUDITQ) at 0.360 and firm size (SIZE) at 0.470, implying that firms with higher disclosure levels tend to engage Big 4 auditors and are generally larger in size. AQ, on the other hand, correlates negatively with AUDITQ (-0.310) and SIZE (-0.290), indicating that firms with better audit quality and larger size are likely to have more transparent earnings. The relationship between audit quality and firm size is strong and positive (0.520), reinforcing the notion that larger firms are more likely to appoint reputable auditors. Leverage (LEV) has weak correlations with most variables, including a slightly negative correlation with IFRS_DI (-0.110) and SIZE (-0.090), but a marginally positive correlation with AQ (0.070). Profitability (PROF) shows positive associations with IFRS_DI (0.210), AUDITQ (0.140), and SIZE (0.180), but a negative correlation with AQ (-0.220) and LEV (-0.150).

Table 3: Correlation Matrix

Variable	IFRS_DI	AQ	AUDITQ	SIZE	LEV	PROF
IFRS_DI	1.000	-0.420	0.360	0.470	-0.110	0.210
AQ	-0.420	1.000	-0.310	-0.290	0.070	-0.220
AUDITQ	0.360	-0.310	1.000	0.520	-0.060	0.140
SIZE	0.470	-0.290	0.520	1.000	-0.090	0.180
LEV	-0.110	0.070	-0.060	-0.090	1.000	-0.150
PROF	0.210	-0.220	0.140	0.180	-0.150	1.000



Effect of FRS Compliance on Financial Transparency

Model Selection: Hausman Test

To determine the appropriate estimator between Fixed Effects (FE) and Random Effects (RE) for the panel data regression, the Hausman specification test was conducted. Since the p-value (0.148) was greater than 0.05, the null hypothesis that the preferred model is random effects was not rejected. Therefore, the Random Effects Model was used.

Table 4: Hausman Test Result

Test Statistic	Chi-Square Value	Degrees of Freedom	p-Value	Decision
Hausman Test	6.784	4	0.148	Random Effects selected

Regression Result on the Effect of FRS Compliance on Financial Transparency

The regression results in Table 5 show the effect of Financial Reporting Standards (FRS) compliance, proxied by the IFRS Disclosure Index (IFRS_DI), on financial transparency, measured by accrual quality (AQ), among Nigerian energy firms between 2015 and 2024. The coefficient of IFRS_DI is -0.001 and statistically significant at the 1% level ($p = 0.003$), indicating a strong negative relationship between FRS compliance and accrual quality. This implies that as firms improve their compliance with IFRS disclosure requirements, the level of discretionary accruals reduces, reflecting higher earnings transparency. This finding aligns with existing empirical literature (e.g., Onifade *et al.*, 2024; Yahaya, 2024b), which posits that improved disclosure practices limit managerial discretion in financial reporting and promote the credibility of earnings. The intercept (constant) is also statistically significant ($p = 0.000$), suggesting that when all explanatory variables are zero, the baseline level of accrual quality is 0.088.

Among the control variables, firm size (SIZE) has a negative coefficient (-0.004) and is marginally significant at the 10% level ($p = 0.056$), indicating that larger firms tend to exhibit better financial transparency, likely due to better governance structures and stronger investor scrutiny. Leverage (LEV) shows a positive and statistically significant effect ($\beta = 0.006$, $p = 0.044$), suggesting that more leveraged firms are associated with lower accrual quality, possibly due to incentives to manipulate earnings to meet debt covenants or performance benchmarks. Profitability (PROF), with a negative coefficient (-0.026) and significance at the 5% level ($p = 0.032$), reveals that more profitable firms tend to exhibit higher earnings transparency, possibly because they have less incentive to manage earnings. The R-squared value of 0.319 implies that approximately 31.9% of the variation in accrual quality is explained by the independent variables. The model is statistically significant overall, as indicated by the Wald Chi² statistic of 20.104 ($p = 0.000$), confirming the joint significance of the explanatory variables. Therefore, the null hypothesis (H_{01}), which states that FRS compliance has no significant effect on financial transparency, was rejected. The result indicates that greater compliance with IFRS significantly improves accrual quality, suggesting enhanced financial transparency among Nigerian energy firms.

**Table 5: Regression Result: Effect of FRS Compliance on Financial Transparency**

Variable	Coefficient	Std. Error	z-Statistic	p-value
Constant	0.088	0.015	5.867	0.000
IFRS DI	-0.001***	0.000	-2.954	0.003
SIZE	-0.004	0.003	-1.923	0.056
LEV	0.006**	0.003	2.011	0.044
PROF	-0.026**	0.012	-2.151	0.032
R-squared	0.319			
Wald Chi ²	20.104			0.000

Dependent Variable: Accrual Quality

*** and ** are significant at 1% and 5% level, respectively

Heteroscedasticity Test (Breusch-Pagan)

The Breusch-Pagan test was carried out to check for heteroscedasticity in the residuals of the random effects model. The p-value of 0.164 indicated that the null hypothesis of homoscedasticity could not be rejected. Therefore, there was no evidence of heteroscedasticity, and the standard errors from the random effects model were deemed reliable.

Table 6: Breusch-Pagan Test for Heteroscedasticity

Test Statistic	Chi-Square Value	p-Value	Decision
Breusch-Pagan Test	1.937	0.164	No Heteroscedasticity ($p > 0.05$)

Effect of FRS Compliance on Accountability

The logistic regression results in Table 7 assess the effect of Financial Reporting Standards (FRS) compliance, measured by the IFRS Disclosure Index (IFRS_DI), on accountability, proxied by audit quality (AUDITQ), where a value of 1 indicates engagement of a Big 4 audit firm. The coefficient of IFRS_DI is 0.046 and statistically significant at the 1% level ($p = 0.007$), indicating that higher compliance with IFRS significantly increases the likelihood of a firm being audited by a Big 4 auditor. This suggests that firms with stronger disclosure practices tend to attract reputable auditors, reinforcing external accountability mechanisms. The result is consistent with findings from Efunniyi *et al.* (2024) and Ayogu (2023), who assert that transparent reporting not only strengthens stakeholder trust but also signals a commitment to corporate governance best practices, including high-quality audits. The constant term is negative and significant ($p = 0.003$), suggesting a low baseline probability of engaging a Big 4 auditor in the absence of strong disclosure practices or other firm-level attributes.

Among the control variables, firm size (SIZE) has a significant positive effect ($\beta = 0.831$, $p = 0.002$), indicating that larger firms are more likely to be audited by Big 4 firms. This is expected, as bigger companies typically have more complex operations and face greater regulatory scrutiny, which incentivizes them to engage top-tier auditors for credibility. Profitability (PROF) is also positively significant ($\beta = 1.481$, $p = 0.015$), showing that more profitable firms are more likely to demand higher audit quality, possibly due to a stronger incentive to protect their reputational capital and ensure investor confidence. On the other hand, leverage (LEV) is not statistically significant ($p = 0.564$), indicating that capital structure does



not significantly influence the choice of audit firm within the sampled energy firms. The model's pseudo R^2 of 0.265 indicates a reasonable explanatory power for a logistic model, while the log-likelihood of -48.130 reflects a good model fit. Overall, the results provide strong evidence that higher FRS compliance significantly enhances accountability through the engagement of top-tier auditors in Nigeria's energy sector. Therefore, the null hypothesis (H_0), which posits that FRS compliance has no significant effect on accountability (measured by audit quality), was also rejected. This implies that firms with higher disclosure compliance are more likely to engage Big 4 auditors, thereby strengthening accountability practices.

Table 7: Effect of FRS Compliance on Accountability

Variable	Coefficient	Std. Error	z-Statistic	p-value
Constant	-2.872	0.981	-2.928	0.003
IFRS DI	0.046***	0.017	2.706	0.007
SIZE	0.831***	0.274	3.033	0.002
LEV	-0.113	0.194	-0.582	0.564
PROF	1.481***	0.608	2.435	0.015
Pseudo R^2	0.265			
Log-Likelihood	-48.130			

Dependent Variable: Audit Quality (AUDITQ = 1 if Big 4 auditor, else 0)

*** is significant at 1% level.

CONCLUSION AND RECOMMENDATIONS

Compliance with Financial Reporting Standards, particularly IFRS, significantly enhances both financial transparency and accountability among Nigerian energy firms. The negative and significant relationship between the IFRS disclosure index and accrual quality affirms that greater disclosure reduces the scope for earnings manipulation and improves the credibility of reported financial information. Likewise, the positive and significant association between FRS compliance and the likelihood of engaging Big 4 auditors confirms that improved disclosure practices lead to higher audit quality and, by extension, stronger accountability structures. These findings reinforce the theoretical expectations of agency, stakeholder, and legitimacy theories and align with empirical evidence that positions IFRS compliance as a driver of corporate governance effectiveness. The study further highlighted that firm size and profitability also contribute meaningfully to transparency and accountability outcomes, while leverage showed a limited effect. Based on the findings of the study, the following recommendations are made:

- Regulatory enforcement of IFRS compliance should be strengthened by the Financial Reporting Council of Nigeria (FRCN) and other oversight bodies to ensure full adoption and application of disclosure requirements by listed energy firms.
- Energy firms should invest in capacity building, including staff training and integrated financial systems, to improve the accuracy and timeliness of their disclosures and to enhance internal compliance culture.



- iii. Audit committees and boards of directors should encourage engagement with Big 4 audit firms, as their expertise and reputation promote higher audit quality and stakeholder confidence.
- iv. Investors and regulators should consider the level of IFRS compliance and audit quality when assessing firm performance, especially in high-risk sectors such as oil and gas.
- v. Future policies and frameworks for financial reporting in Nigeria should incorporate incentives for transparent reporting and penalize incomplete or deceptive disclosures to deter opportunistic behaviour and protect public interest.

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